

Paradigm Explorer



INSIDE

PAGE 4

Network Newsletter
No 1

PAGE 11

In Florence
Nightingale's Footsteps

PAGES 4,55

Gaia, Psyche and
Deep Ecology



The Scientific &
Medical Network

NETWORK CALENDAR 2020

March 21-22	<i>Mirror of the Present – an Oracular Seminar</i> , with Shantena Augusto Sabbatini and Cruz Manas Sabatini, Oxford and Cambridge Club, London SW1. <i>Leaflet enclosed.</i>
April 17	<i>The Way of Compassion: changing the world through meditation.</i> Day workshop with Shakti Caterina Maggi, Friends House, London NW1. <i>Leaflet enclosed.</i>
April 17-19	Mystics and Scientists 43, Horsley Park. <i>Re-animating the World – Consciously Connecting with the Deep Wisdom of Nature.</i> Speakers: Anna Breytenbach, Prof. Paco Calvo, Fred Hageneder, Heidi Herrmann, Pea Horsley, Shakti Caterina Maggi, Dr Judith Prager, Dr Rupert Sheldrake. <i>Leaflet enclosed.</i>
May 16	<i>One Mind, One Health, One Planet</i> – special day with Dr Larry Dossey, Barbara Dossey and Deva-Marie Beck. Friends House, London NW1. <i>Leaflet enclosed.</i>
July 3-5	32 nd Annual Gathering, Horsley Park. <i>Gaia, Psyche and Deep Ecology</i> with Dr Andrew Fellows (Switzerland). <i>Leaflet enclosed.</i>

Dates for your diary:

September 25-27	<i>One Humanity</i> - Continental Meeting in Celje, Slovenia.
November 6-8	Beyond the Brain, University of Westminster.

LONDON - CLAUDIA NIELSEN

0207 431 1177 or preferably email claudia@pnielsen.uk

We meet at 38 Denning Rd NW3 1SU at 7 for a 7:30pm start. Nearest tube station is *Hampstead* (Northern Line) or *Hampstead Heath* (Overground). Cost is £10 for members and £12 for guests. Please confirm attendance so I can anticipate numbers. Friends and non-members are always welcome.

For more comprehensive information on presentations (to include synopsis and biographies) plus summaries of past ones, go to the *London Group* page of the SMN site at www.scimednet.org.

Please note that sometimes talks have to be rescheduled and information is sent via email so even if you are not in London but would like to be kept informed of changes, please send me an email and I will put your address on the circulation list.

UPCOMING EVENTS - 2020

JANUARY

Monday 13th RUPERT SHELDRAKE PhD Ways to Go Beyond: And Why They Work

FEBRUARY

Monday 24th NICHOLAS MAXWELL Can Universities Save Us From Disaster?

MARCH

Monday 16th GARY LACHMAN Dark Star Rising: Magick and Power in the Age of Trump

APRIL

Monday 6th Prof. JOHN CLARKE Beyond Nihilism: what can we learn from Nietzsche?

MAY

Monday 18th Dr. PHILIP GOFF Is Consciousness Everywhere? Foundations for a New Science of Consciousness

CONTENTS

EDITORIAL

Islands of Light	<i>Paul Filmore, Chairman</i>	2
100th Issue as Editor	<i>David Lorimer</i>	3

ARTICLES

Network Newsletter No. 1 18th January 1974	<i>George B. Blaker, Dr Patrick Shackleton</i>	4
Gaia, Psyche and Deep Ecology	<i>Andrew Fellows</i>	7
In Florence Nightingale's Footsteps	<i>Barbara M. Dossey Deva-Marie Beck</i>	11
Soul Sickness and Soul Healing	<i>Dr. Zhi Gang Sha Rulin Xiu</i>	16
Cats are People too: the Biologist's Dilemma	<i>Matt Colborn</i>	19
The Promise of Promissory Materialism?	<i>Edi Bilimoria</i>	23

REPORTS

The Future of Global Systems Thinking James Lovelock Centenary Conference	<i>Andy Richards</i>	24
Report on the SMN Annual Gathering 5-7 July 2019	<i>Michael Cohen</i>	26
Cascadia Conference Report 5-7 July 2019	<i>Diana Clift</i>	28
Evolving Consciousness	<i>Mark Vernon</i>	30

NETWORK NEWS

Network News	32
News and Notices	34
Members' Articles	37

BOOK REVIEW SECTION

Science/Philosophy of Science	38
Medicine/Health	41
Philosophy/Spirituality	43
Psychology/Consciousness Studies	50
Ecology/Futures Studies	56
General	57
Books in Brief	61

Notice to Contributors

All proposed contributions should be sent to the Editor by email as a Word and/or PDF file.

For further guidelines please email:
dl@scimednet.org

PARADIGM EXPLORER is published three times a year by the Scientific & Medical Network, generally in April, August and December.

Editor: David Lorimer
2 Chemin de la Chaussee,
11230 St Colombe sur l'Hers,
France

E-mail: dl@scimednet.org

Web Site: www.scimednet.org

(Members may apply to the SMN Office for password to access the Members Only area of the web site).

Editorial Board:
John Clarke, Paul Kieniewicz

Printed by:
Kingfisher Print & Design Ltd, Devon

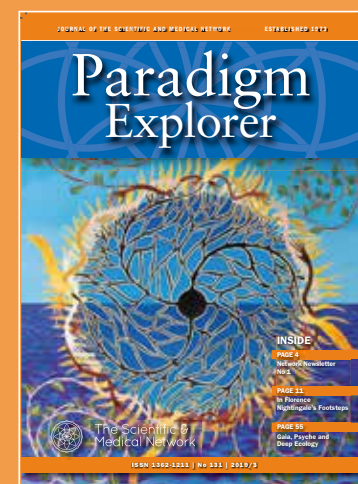
The opinions expressed in Network are those of individual authors and not necessarily statements of general Network views. The Network is in no way liable for views published herein.

Paradigm Explorer
Registered office:
Scientific & Medical Network,
c/o Dawe, Hawken & Dodd,
52 Fore Street, Callington,
Cornwall PL17 7AJ

Tel: 0203 468 2034.

Email: info@scimednet.org

Company limited by guarantee,
registered No. 4544694 England
Registered charity No. 1101171 UK



Cover: *Holding Openness*, Alan Rayner, oil on canvas 2005



Islands of Light

*From Dr Paul Filmore, Chairman chairman@scimednet.org
Forum: Editorial (Please comment via the members' website)*

I often find myself focussing on the third line: 'Through the world we safely go', of the well-known extract from William Blake's *Auguries of Innocence*.

"Man was made for joy and woe
Then when this we rightly know
Through the world we safely go.
Joy and woe are woven fine
A clothing for the soul to bind."

At any time of perceived change or uncertainty, this third line is so supportive, and keeps us grounded and focussed. This line though, is predicated by the underpinning line 'when this we rightly know'. For me the word 'this' in the line, should

be interpreted more widely than the prophetic Blake interpretation of 'joy and woe'. I see William Blake using the word 'this', as a comprehensive description of the human condition. So if we can separate enough to see ourselves and others, living within the human condition, then we are free to live our lives without uncertainty or fear because we can, 'through the world' 'safely go'. With this understanding we are then enabled to devote ourselves to the benefit of humankind in many small ways, by being what I envisage as, 'islands of light' where we try do the right thing, even against what often feels like the overwhelming forces/ challenges which are abroad in this our present world.

Many of us are drawn to the Network to try to do these right things. In each of our small ways, but stronger as the Network group, we try to undertake activities that promote these 'islands of light' within what feels like the rough seas of present-day craziness. What more obvious an 'island of light', can be the publication of this journal? Over such a time span, this journal has shared so many people's often tentative or speculative thoughts, through articles, comments and book reviews. So it is with humility I believe that we can rightly celebrate, this the 100th edition of *Paradigm Explorer* (formerly *Network Review*) edited by David Lorimer, and with all sincerity thank everyone who has contributed in any way.

Christmas 2019

A big thank you must go to the superb team we have here at the SMN. We have had a great year of meetings and activities. I thank in particular our new manager Andrew who this summer took over and has had a steep learning curve with us, which he has managed superbly. Secondly it goes without saying that our Programme Manager David has done a superb job alongside admirably editing *Paradigm Explorer*. Many people have contributed to our successful conferences and talks alongside David. In particular we must thank Olly, Andrew, Joan, Michele, Lana on social media, and our team of helpers. Also we must not forget Chiara who has taken over our book keeping, and Richard who keeps our IT running. Many others from our Board also contribute with specific jobs, like Jacqui with local groups and Nicholas as secretary. We also have two new young Board members José and Molly who have already brought in new energy, knowledge and a young perspective. Finally, I must not forget our trustees who have been so supportive, not least Janine. Again a big thank you to all and apologies if I have missed anyone!

Wishing our team and all our readers a very happy Christmas and a joyful 2020.

Paul



100th Issue as Editor

David Lorimer

This issue marks my 100th as editor of what started as the Network Newsletter, as you can see from the piece that follows from January 1974. I first met George Blaker in the summer of 1983 when I was teaching philosophy and languages at Winchester College. Out of the blue, I received a letter from George inviting me to join the Network. I duly replied in the affirmative and sent my subscription of £10 for the year. A few weeks later, George invited me over to Ockley for lunch at The Crown in Capel, a neighbouring village. After only about 10 minutes, he said that I was just the kind of person he was looking for to take over the Network. I immediately knew intuitively that this would be my path, and joined the Council in the autumn.

I then left Winchester in the summer of 1986 and moved to Gloucestershire. In October, I drove out to France to conduct a seminar at Le Plan Centre near Le Castellet - not far from Toulon - with Sir George Trevelyan, on The New Gnostics. We subsequently ran seminars on The New Essenes and the New Cathars - and now I find myself living in just that area of south-west France. I arrived back via Heidelberg and Alsace, beginning my work for the Network on November 9. George had used a manual typewriter, and I now invested in a new electric typewriter to begin my work (the first Network computer came online in 1988).

As I have written in an earlier brief editorial to celebrate 30 years working for the Network, the pace and nature of the day was very different in the absence of technology. The main business was conducted by post and over a few phone calls, with no more than six

items arriving on any given day unless a conference was in the offing. Application forms arrived for membership, and I wrote a letter of welcome which I posted in the local post office at Northleach with a copy of the current newsletter and Members' Directory. I had plenty of time to pursue a wide range of activity.

One of my first main tasks was to produce Newsletter No. 32, which I did reflecting the then 'design' with a blank page in front and in A5 size with minimal formatting. I found a local printer in Cheltenham, AJ Green - Allan, his wife Jennie and son David, who did all our printing - including leaflets - for the first five years. I would then often drive down to Cornwall to Paul Filmore's house - where he still lives - to finalise the copy and have labels printed out on his then state-of-the-art dot matrix printer - lasers were a thing of the future. I remember there being 413 labels for Members in December 1986, plus maybe another 200 for Friends. These all had to be stuck individually onto envelopes, and, when back in Hampnett, I stuffed all the envelopes myself, added individual stamps, and took the boxes down to the post office for collection. I also remember the mortification of seeing my first serious typo in the contents section of that first newsletter where Willis Harman's article was about wisdom rather than wisdom!

As far as I can remember, there were no book reviews in that first issue. This line developed gradually, and one of the first major reviews I remember writing was of *Transformations of Consciousness* by Ken Wilber, Jack Engler and Daniel P Brown - written of course on my

electric typewriter and therefore with no electronic copy. Gradually, the extensive book review section grew to be a unique feature of the journal, with so many coming in that I soon had to establish a books in brief section following the main reviews. The format gradually evolved with the help of Dr John Miller and the title became *Network Review* and, with Number 124 in the summer of 2017, *Paradigm Explorer*. Kevin Ashbridge worked with me in Scotland in 1996, and set up the book review database, which had over 5,000 entries when I came to France in 2014. I still receive about 250 books a year and occasionally, when I am away for up to a fortnight, more than one a day has arrived during my trip!

The cumulative output of producing 100 issues of the journal is very considerable, and represents one of my most significant achievements over the past 30 years. It has also been an immense privilege to be in a position where I am learning all the time across a considerable range of disciplines, distilling many essential insights in the process - which I aim to pass on to readers, but which also form part of my own intellectual and spiritual development, along with our programme of conferences - especially *Mystics and Scientists and Beyond the Brain*. As such, I regard myself as a curator who has been creatively exhibiting and communicating a selection of important works for you, my readers, over many years. On that note, I'd like to offer a seasonal toast - those who know me personally will probably think of champagne - to the many friends I have made through my role in the Network.



*George and Richenda Blaker
outside Lake House*

Network Newsletter No. 1

18th January 1974

George B. Blaker, Dr Patrick Shackleton

Annotated by David Lorimer

George Blaker CMG and Dr Patrick Shackleton were two of the founders of the Network. George continued as Hon. Sec. after Patrick's death in 1976 until I took over from him in November 1986. Readers may find it interesting to reflect on how much things have changed – or not!

Aims Developments so far, and Action for the Future

This Letter

1. It is in the nature of our network that the aid of every individual member cannot be invoked every time there is some action to take. Usually the most we can do is to ring up two or three members for urgent consultation. At the same time a reasonable degree of cohesion within the group as a whole is obviously an advantage and may be easier to achieve if all the members have a chance of knowing, at least in broad outline, what the group and some of the individual members in it are doing. This after all is the work in which as a group we are all participating. It has been proposed therefore that we should circulate an informal newsletter from time to time giving such information as we can about how we are getting on, and this is our first attempt at so doing.

Aims

2. At the time of the last meeting of our original group, in September 1973, when our numbers were much smaller, our most immediate aim was to build up, by progressive personal contact, a private and informal list, or “network”, of qualified scientists, pure and applied, including in the latter category medical doctors, who have adopted or are inclined towards a non-materialist interpretation of the Universe and who have a sympathetic personal interest in studies of and research into parapsychical, parapsychological and spiritual matters and in action that might usefully flow from these. The criteria considered appropriate for recruitment to the network were rather exacting: scientific or medical degrees conferred by a University and a history of employment in scientific or medical work, in addition to the personal inclinations referred to above. *The Network was the first of its kind – the term, so widespread today, was not at all common in 1973. Other Networks like the Business Network followed.*
3. The reasons for adopting this strict selective process lie at the heart of the whole plan. The view was accepted that, despite fairly widespread expressions of

disillusionment with science and some dislike of the direction in which it appears to be leading the world, people in general do, in this materialistic age, look to scientists directly or indirectly as their intellectual and spiritual leaders. They no longer accept the opinions of others about the nature of the Universe or what constitutes reality except where these opinions seem to be substantiated by the findings of scientific or medical research. The method of compiling an ever growing body facts, each related to and depending on those already established, leads to the development of a great scientific system of immense value and entirely valid and coherent within its own terms. But the limitations which this system imposes are seen to become ever more onerous.

New discoveries, unrelated to what is already known in a scientific way, tend to be ignored for lack of adequate means of scientific expression. It has become essential for scientific research to be focused to an increased extent on those areas where true advances in basic understanding of the human situation can be made. It seems to us that studies of what is often called (but may not be) the “paranormal”, leading naturally into studies of the spiritual nature of man and the Universe, have a vital contribution to make to this process, and that there is a need to bring the relevance of the results of good quality research in those fields to the notice of as many as possible of those scientists who have not hitherto had any particular occasion to take notice of it. What is needed therefore is an interpretation, good enough in quality to appeal to the trained minds of scientists, of results being achieved. The part of our Network dedicated to this work must consist almost exclusively of scientists because only they will stand a reasonable chance of being able to present material that will impress their colleagues sufficiently to make a timely and much needed impact on the

direction of orthodox scientific thought. Scientists have the equipment and hold the key to the kind of research that will be done, and it is they whose interest must be aroused.

4. However, we have had a lot of practical help from people who are not strictly within our criteria for membership (as well as from those who are) but are intensely interested in our endeavours, and we are grateful to all of these. Without being unfair to the others we can perhaps single out in this connection the Human Development Trust, which has generously offered us various facilities and also has a scientific sub-committee to which some of our members belong.

Developments So Far

5. Since the last meeting the network has grown slowly but steadily and now embraces more than 50 qualified men and women. Some notable new figures have been kind enough to declare themselves in full support of our activity, some enthusiastically and some at least to the extent that we may cite their names where this is helpful and relevant. The organisation has been kept to a minimum, as agreed in September, and we have avoided giving ourselves any name. It is hoped that we can continue thus, at least for the time being. *I am not sure when the name Scientific and Medical Network was adopted.*
6. The Institute of Applied Meditation has very generously presented us with a supply of transcripts of the symposium entitled “The Dimensions of Healing” sponsored by the American Academy of Parapsychology and Medicine and held at Stanford University from Sept. 30th to Oct. 3rd and at the University of California, Los Angeles, from Oct. 5th to 8th, 1972. As the sale price of these books is \$10 each they are not being distributed automatically, as this might lead to duplication, but we will gladly send one gratis to any member asking for one so long as supplies last.
7. Before leaving the subject of this gift from the Institute of Applied Meditation, may we draw your attention to the enclosed sheet giving initial notice of a residential conference and series of lectures being arranged in England in May by the Institute in association with the American Academy of Parapsychology and Medicine. We have undertaken to supply further details in the first place on behalf of the Institute to any of our members (only) who may be interested. The invited speakers include a number of the contributors to the symposium in California referred to in paragraph 6 above.
8. Another piece of literature we have been distributing is a report of an interview with Dr. Shafica Karagulla, President of the Higher Sense Perception Research Foundation, also of California. It has gone to those members of the network who, it was thought, might not easily have been able to get a sight of it otherwise. Since then a few more copies have been obtained and can be supplied on request to any member who would like to see one.
9. If any author member would like to send us a number (up to about 50) of reprints of any relevant article that he or she has had published in a scientific or professional journal, for circulation to our members, we should be happy to undertake the distribution.
10. We were asked, and after suitable consultation were able to recommend, the names of two scientists who could appropriately be invited to attend for the United Kingdom a symposium being arranged in Europe.
11. Some members have engaged in correspondence in the national press (e.g. “The Times” in December) on matters relating to science and ESP, as well as their normal writings in learned, professional or scientific

journals, and this is an activity that it would probably be helpful to extend as and when opportunity offers if it seems likely that something could be said that would serve our aims. No doubt it is more useful to address ourselves to the broader issues rather than the narrow ones that crop up from time to time, but a worthwhile wider argument can often be developed from a specific point that is being debated in the newspapers. We would like to invite some more of our same members to join in this game in the newspapers of their choice.

12. Dr. D. M.A. Leggett (*another founder then Vice-Chancellor of Surrey*) has convened a small pilot Seminar at the University of Surrey on the significance of the paranormal. We hope to be able to report on this separately.

Action for the future

13. This is the section in which we want to invite our members to keep us stimulated with proposals for policy and action that they would like to see us as the “secretariat” or themselves and other members carrying out. Proposals have been coming in, mainly, as it happens, from the medical side.
14. One member requests that one of our psychologist members should write a book on “the anatomy of disbelief” in which he would search out the underlying emotional objections to the whole field of paranormal study. Any takers?
15. Another proposes that it would be worth making a real effort to break the tight circle in medicine which, it is alleged, effectively ensures that no reference is made to wider energy systems or to higher sense perception (HSP) in the teaching of medical students. Do the younger teachers, or even the students themselves, offer a way in here? Do our other doctors think this is dangerous legitimate ground to explore?
16. We have not yet, in our own opinion, succeeded in recruiting adequate numbers of the highly qualified practising scientists with whom we want to consult.
- We cannot circulate our list of members for suggested additions because we have guaranteed that it will be confidential. It will be helpful therefore if sympathisers will continue to send us, without being too much inhibited by any fear of the risk of duplication, names of scientifically qualified people whom we have reason to believe we could usefully approach.
17. Reading List. It is to be presumed that most of our members know the literature as well as or better than we do, but if anyone is interested in receiving a reading list, we have one ready to send, comprising a selection of more than a hundred books on a wide variety of paranormal matters and containing, in our estimation, some of the more usable material for the practical purpose of convincing other scientists that they would not be wasting their time in looking more deeply into the origins of things than current opinion generally considers necessary. We also need to assemble other good quality convincing data in the form of papers, reports and research results to offer, where we can, to interested members in support of their efforts to enlighten their audiences. In some cases, we may be able to circulate papers, as was done with the Karagulla interview. *I have the 1975 version of this list for any interested readers.*
18. It may be useful at this point to refine further our definition, still tentative, of the kind of material we are looking for to recommend to others. So far we have described it as follows:
- (a) evidence (not proof) of planning by or purpose of some dynamic mind other than that of any incarnate person connected with the research.
 - (b) evidence of the existence of energies, laws and forms of life that cannot be directly apprehended by our normal physical senses.
 - (c) evidence that the physical structure of living; or inanimate things is dependent for its maintenance and growth on a more basic non-physical field.
- (d) well attested instances of higher sense perception (HSP). Professor E. R. Laithwaite’s article “Inner Voice” in the New Scientist of December 20th appears to furnish an example of this.
 - (e) well attested cases of mind functioning independently of the body (including out-of-the-body experiences).
 - (f) evidence of the continuity of life after the death of the body.
 - (g) the more than usually conclusive cases of healing through paranormal agencies (since there are so many cases of healing to choose from).
19. In connection with more than one of our areas of activity it would be helpful if we might have from each of you, if you are willing, and at your leisure, a statement of
- (i) what your particular interests are within or related our general field, and
 - (ii) what, if anything, you are actually doing. This knowledge should enable us to be of better service to you when any special opportunities arise. *This was also used to compile the first confidential List of Members, now a casualty of GDPR and last printed in 2002.*
20. It seems that it is not too soon to begin collecting and discussing ideas for new research projects. After adequate consultation with those experienced in relevant areas the intention might be to find someone with the facilities and the interest to undertake and develop the work.
21. The above constitutes a continuing programme of work that, with its more penetrating aspects that we hope to get down to, could occupy all our time; but are there other things our members wish us to do at this stage?



From Applied Physics to Applied Metaphysics

Andrew Fellows PhD

Civilizations are hard-wired for self-destruction. They travel in an arc from initial success to terminal decay and ultimate collapse due to intrinsic, inescapable biophysical limits combined with an inexorable trend toward moral decay and practical failure. Because our own civilization is global, its collapse will also be global, as well as uniquely devastating owing to the immensity of its population, complexity and consumption. To avoid the fate of all past civilizations will require a radical change in our ethos—to wit, the deliberate renunciation of greatness—lest we precipitate a dark age in which the arts and adornments of civilization are partially or completely lost. [Ophuls, 2012]

Unreason

Even these unflinching sleeve notes from William Ophuls' highly recommended analysis understate our current peril in two significant ways. Firstly, beyond the collapse of our civilisation, the factors that could drive our entire species (along with others, and many already) to extinction in the near future are accumulating and intensifying with the advent of the Anthropocene epoch in which the great forces of nature are becoming irreversibly more unpredictable and hostile to life due to our impacts; I trust that I need not dwell on these here. Secondly, and more constructively, I contend that relinquishing our

hubris as Ophuls advocates is certainly necessary but not alone sufficient, and that a far more comprehensive 'radical change' in our entire worldview—a *metanoia*—is required for us to adapt willingly and adequately to the challenging years ahead. Hence the primary aim of my book, *Gaia, Psyche and Deep Ecology: Navigating Climate Change in the Anthropocene* [Fellows, 2019] is to posit a plausible, comprehensible and coherent framework to foster such a paradigm shift. My quest, sometimes conscious and at others not, for this over decades began with a formal academic background

in applied physics, but could now be described as independent research into 'applied metaphysics', of which more later. While the line between open-mindedness and gullibility may be fine, and charlatans undoubtedly abound, I am dismayed by how many of the elements of this framework are simply taboo, even in 'progressive' discourse. This is most poignant for me in *The Guardian* newspaper because it is my first source of information about the unfolding climate emergency thanks to its exemplary coverage of the political and scientific dimensions. We clearly have far to go, so I

write here, as a newcomer to the Galileo Commission advisers and SMN membership, in the hope of reaching a more receptive audience!

The outer ‘applied’ aspect of my intertwined professional and personal lives for almost five decades has focussed on the energy sector, from all things nuclear to climate disruption. I am at heart an activist, but after years of protest against the problem through countless demonstrations and direct actions I resolved instead to become part of the solution by working in energy conservation and then renewables, in particular wind power, as an applied scientist. The campaigning nonetheless continued, albeit transmuted from demonstrating to lobbying. Having replaced my placards with an executive briefcase, my experiences in the corridors and boardrooms of power as a representative of the industry confirmed my suspicion that reasonable scientific and even economic arguments had little to no influence upon policymaking. Other factors, irrational and covert, were steering matters, with consequences trenchantly summarised by Paul Kingsnorth [Kingsnorth, 2017, 131]:

The green movement, which seemed to be carrying all before it in the early 1990s, has plunged into full- on mid-life crisis. Unable to significantly change either the system or the behaviour of the public, assailed by a rising movement of ‘sceptics’ and by public boredom with being hectored about carbon and consumption, colonised by a new breed of corporate spivs for whom ‘sustainability’ is just another opportunity for selling things, the greens are seeing a nasty realisation dawn: despite all their work, their passion, their commitment and the fact that most of what they have been saying has been broadly right — they are losing. There is no likelihood of the world going their way. In most green circles, sooner or later, the conversation comes round to the same question: what the hell do we do next?

Metaphysics

‘What the hell’ I did next, having largely exhausted conventional approaches and become increasingly interested in mysticism, was to explore what Terence McKenna famously called the ‘wiring under the board’, both in myself and in our *Zeitgeist*, by studying Jungian psychology full-time in Zürich for eight years. Although C.G. Jung died a year before Rachel Carson published her environmental wake-up call [Carson, 1962], he nonetheless nailed the issue in for me sixteen prescient words: ‘...*the world today hangs by a thin thread, and that thread is the psyche of man.*’ [Jung, 1957/1977, 303] By ‘psyche’, he didn’t just mean our familiar mental world of ego consciousness, which is just the visible tip of the metaphorical iceberg; the majority of psychic contents and processes below the waterline are unconscious, autonomous and active, their existence only indirectly inferable through their often irrational influence on our emotions and behaviour, most overtly through manifestations such as dreams, projections and complexes. At deeper levels the unconscious realm becomes universal rather than personal, patterned by archetypes which are, in turn, ultimately ordered by what Jung called the ‘Self’. At the very deepest level, the apparent split between psyche and matter breaks down altogether. Jung called this ontic, psychophysically neutral domain the ‘psychoid’ or, invoking the lexicon of alchemy, the *unus mundus* (one world). He explored this further through his collaboration with the theoretical physicist Wolfgang Pauli and, after two decades, they published [Jung and Pauli, 1952] what is now often called the Pauli-Jung conjecture. This is one of several variants of metaphysics that can be classed, in contradistinction to Cartesian dualism, as dual-aspect monism [Atmanspacher, 2014]; their common antecedents in Western philosophy can be traced back at least to Descartes’ near-contemporary, Baruch Spinoza, and in Eastern thought to the Vedanta tradition that originated centuries BCE.

Crucially, Jung considered the psyche to be teleological, its ultimate purpose being movement towards the goal of meaning and wholeness, a process he called ‘individuation’, while reconciling the inevitable tensions between stability and growth along the way. Teleology is, of course, anathema to our mainstream Western science that is still predicated on causality. However, causality is hidden in complex systems and apparently violated in phenomena such as quantum entanglement and the psychological anomaly of synchronicity (the most well-known yet misunderstood outcome of the Pauli-Jung conjecture). While acausality does not amount to teleology, the common origin of psyche and matter in dual-aspect monism hints at the possibility of a similarly teleological correlate in the physical world, and this finds its broadest scientific expression in Gaia theory, which James Lovelock defined [Lovelock, 2009, 166] as:

A view of the Earth introduced in the 1980s that sees it as a self-regulating system made up from the totality of organisms, the surface rocks, the ocean and the atmosphere tightly coupled as an evolving system. The theory sees this system as having a goal—the regulation of surface conditions so as always to be as favourable as possible for contemporary life. It is based on observations and theoretical models; it is fruitful and has made eight successful predictions.

This ‘goal’ is essentially the only difference between Gaia theory and Earth systems science, i.e., between controversy and respectability. In Lovelock’s earlier writings he posited that the planet behaves like a single giant organism which, supported by the personification suggested by William Golding, evokes the Platonic notion of the *anima mundi*—the world soul. Jung, on the other hand, was preoccupied with the human soul. Since metaphysics is the attempt to describe reality, caveats such as Alfred Korzybski’s axiomatic assertion that the map is not the

territory [Korzybski, 1931/2000] appear in many cultures, and are simultaneously humbling and liberating. With this in mind, I explored the possibility that Jung and Lovelock, unwittingly and unknown to each other, could have been creating maps of territories that are complementary subsets of mind and matter, i.e., the mental and physical worlds that we inhabit, which (inevitably!) share a common ontological substrate, the *unus mundus*. I found numerous qualitative, but nonetheless significant, correlations (and no obvious contradictions) between the goals, dynamics, structures, contents and current pathologies of psyche and Gaia. The key structural correlation (KSC) is that of our ego with our species, and the unconscious with the other-than-human in these mental and physical domains respectively. These are all fully detailed in my book, but the correlated pathologies merit a brief mention here as they offer a powerful insight into our current predicament.

Jung's vehement critiques of the (then) contemporary Western psyche are more pertinent than ever today: *'We lack all knowledge of the unconscious psyche and pursue the cult of consciousness to the exclusion of all else. Our true religion is a monotheism of consciousness, a possession by it...'* [Jung, 1929/1967, §51] This egotism within our psyche is complemented outwardly by our dominance of Gaia, which is perhaps most succinctly conveyed by the authoritative estimate that we, together with our livestock, comprise some 97% by dry mass of terrestrial vertebrates, leaving only 3% for wild animals [Smil, 2011, 619]. Elsewhere Jung warns that *'The unconscious ... only becomes dangerous when our conscious attitude to it is hopelessly wrong. To the extent that we repress it, its danger increases.'* [Jung, 1946/1985, §329] Again, this is externally paralleled by our hubristic attitude to, and alienation from, the other-than-human world, and the unprecedented dangers of the Anthropocene that have arisen as a result. Such a catastrophic co-incidence is only to be expected given the aforementioned KSC.

Enantiodromia

Yet here I am, writing this using sophisticated electronics while sheltered in a comfortably heated room from the snow outside. If human progress to date has brought so many undeniable benefits such as these, what is the problem? It is, as Fritjof Capra observed, that *'One of the most difficult things for people in our culture to understand is the fact that if you do something that is good, then more of the same will not necessarily be better. This, to me, is the essence of ecological thinking.'* [Capra, 1983, 25] 'Our culture' overlooks the interplay of opposites and the commensurate need for balance that is inherent in Eastern thought, most explicitly in the complementary qualities of yin and yang. Jung coined the neologism 'enantiodromia' from the philosophy of Heraclitus to describe *'the play of opposites in the course of events, the view that everything that exists turns into its opposite.'* [Jung, 1921/1971, §708] It is the pivotal factor in his 'Stages of Life' developmental theory, which was the first to cover the entire human lifespan from cradle to grave [Jung, 1954/1969]. Broadly speaking, the emphasis shifts from separation of the ego from its fusion with the unconscious at birth to reconciliation of the ego through conscious union with the unconscious as death approaches, i.e., from adaptation to the outer world to adaptation to the inner world; the latter is an alternative description of the individuation process. The transition from one to the other can be disorientating and painful, precipitating a mid-life crisis. Jung showed little interest in scaling this up from the individual to the collective, but others have seen its potential:

There is one unexpected way in which Jung's first/second half dichotomy can be of enormous help. This is as an aid to looking at the culture we live in now which, in spite of sporadic signs to the contrary, has a cast of a first half of life type, as Jung described it. We value independence and success; it seems we cannot control our destructiveness. And we have but glimpses of the meaning and purpose of life. The qualities of the second half of life represent what our culture desperately needs to grow toward.

[Samuels, 1986, 171]

Using both the KSC and first-hand experiences in my therapeutic practice, I analysed our stubborn resistance to the practical changes that science tells us we have to make as a symptom of collective mid-life crisis. As the consequences of the Anthropocene become more severe, our 'heroic development' (as I have called the first half of collective life) is coming to an end. This analysis identified three interrelated modes of denial: inertia (business as usual), nostalgia (the U.S. and U.K. being clear examples) and hubris (most extremely in ecomodernism and transhumanism). Moreover, it indicated how to transcend these toxic defences in the second half of life via a fourth path, which I have called 'frugal individuation'.

This path has already largely been mapped out by the long-range deep ecology movement, which arose in the 1970s. Its original proponent was the Norwegian philosopher Arne Næss, whose influences notably included Spinoza and William James but not, as far as I know, Jung. I have nonetheless established qualitatively significant correlations between the tenets of deep ecology and individuation as understood by Jung. Like Jung, Næss had a concept of 'Self' that was inspired by the Upanishads and was clearly differentiated from the domain of the individual ego. Deep ecology advocates a psychological rather than moralistic approach to environmentalism by expanding the 'ecological Self' beyond the boundaries of the narrow ego through the process of caring identification with larger entities such as forests, bioregions and the planet as a whole. Its essence is a shift from anthropocentrism to biocentrism which, again using the KSC, outwardly parallels the inner psychic shift of the centre of the personality from the ego to the (Jungian) Self. At a time when we are both inwardly and outwardly moving in the opposite direction, it is unsurprising that deep ecology is deeply unpopular.

Panpsychism

Relatively late in my research, I discovered that Jungian psychology, Gaia theory and deep ecology are all inherently compatible with the recent revival and development of theories of nonlocal psyche propounded by William James and Frederick W.H. Myers at the end of the nineteenth century. Comprehensive evidence, especially from ‘psi’ phenomena, that the physical brain functions as a receiver and transmitter, rather than a generator, of consciousness, has been meticulously curated [Kelly et al., 2007]. The theories and implications of going ‘beyond physicalism’ [Kelly et al., 2015] received widespread attention at *The Science of Consciousness* conference this year, and have been elegantly presented by Steve Taylor [Taylor, 2018]. Whatever we elect to call this vital new disruptor of the physicalist paradigm—panpsychism, panentheism (Kelly et al.), panspiritism (Taylor) is a secondary consideration here. Rather, it is important because it is the greater *metanoia* within which my framework is embedded, thereby reinforcing the consilience upon which my thesis depends.

Meaning

In conclusion, I have established intriguing synergies between apparently unrelated views and models of our inner and outer worlds, but to what end? With the arguably bland term ‘frugal individuation’ for the way ahead, I envisage frugality in Ophuls’ sense of ‘*the art of making as little as possible go as far as possible.*’ [Ophuls, 2011, 186], but let’s not kid ourselves at this critical juncture. Living without the unprecedented comforts and opportunities to which we have become accustomed will be challenging, but we have no choice. Will we have to be coerced kicking and screaming into frugality, or can we make the transition willingly, even joyfully? As a Jungian Analyst, I know the transformative impact of finding meaning in inescapable individual suffering. Collectively, one way to find meaning in our imminent material deprivation is to understand it as a voluntary act of surrender to a principle that transcends our egotistical desires. The Abrahamic faiths that underpin Western culture with their off-world,

anthropomorphic God and creation myth of human dominion have little to offer in this context. Rather, I contend that each of us can, in our own way, find the necessary meaning through the process of individuation, the common ground of which in my framework is movement towards realisation of both the Jungian and ecological Self to expand our awareness of, and identification with, the other-than-ego and other-than-human respectively. It may be hard to see why we should care for an inert world, but it is surely far harder to see why we should not care for a sentient world, for another—or perhaps even ultimately the same—soul. Judiciously applied, metaphysics could, quite literally, make a world of difference to our fate.

Andrew Fellows is a Jungian Analyst (www.andrewfellows.ch) practising in Bern, Zürich and online, an independent researcher and author, and a deep ecologist. He holds a Doctorate in Applied Physics (Dunelm), and enjoyed two decades of international professional engagement with renewable energy, sustainable development and environmental policy before moving from the U.K. to Switzerland in 2001 to study Analytical Psychology. He has presented his evolving ideas since 2007 at international conferences throughout Western Europe, in Japan and in the United States. Factual updates, recommended references, and his lecture schedule are available at the companion website to his book, www.irreducible.world. He lives over three thousand feet above sea level in rural Switzerland without a car.

References

- Atmanspacher, H. (2014) 20th Century Versions Of Dual-Aspect Thinking. *Mind and Matter*, 12, pp. 245-269.
- Capra, F. (1983) *The Turning Point*. Flamingo, London.
- Carson, R. (1962) *Silent Spring*. Houghton Mifflin, Cambridge, MA.; Riverside Press, Boston.
- Fellows, A. (2019) *Gaia, Psyche and Deep Ecology: Navigating Climate Change in the Anthropocene*. Routledge, London.
- Jung, C.G. (1957/1977) The Houston Films. In C. G. *Jung Speaking: Interviews and Encounters*, (Eds, McGuire, W. & Hull, R.F.C.) Princeton University Press, Princeton, N.J., pp. 276-352.
- Jung, C.G. & Pauli, W. (1952) *Naturerklärung und Psyche*. Rascher, Zürich.
- Jung, C.G. (1929/1967) Commentary On “The Secret of The Golden Flower”. In *The Collected Works Of C. G. Jung Volume 13: Alchemical Studies*, Princeton University Press, Princeton, N.J., pp. 1-56.
- Jung, C.G. (1954/1969) The Stages of Life. In *The Collected Works Of C. G. Jung Volume 8: The Structure And Dynamics Of The Psyche*, Princeton University Press, Princeton, N.J., pp. 387-403.
- Jung, C.G. (1921/1971) Definitions. In *The Collected Works Of C. G. Jung Volume 6: Psychological Types*, Princeton University Press, Princeton, N.J., pp. 408-486.
- Jung, C.G. (1946/1985) The Practical Use of Dream Analysis. In *The Collected Works Of C. G. Jung Volume 16: The Practice Of Psychotherapy*, Princeton University Press, Princeton, N.J., pp. 139-162.
- Kelly, E.F., Crabtree, A. & Marshall, P. (Eds.) (2015) *Beyond Physicalism: Toward Reconciliation of Science and Spirituality* Rowman & Littlefield, Lanham, Maryland.
- Kelly, E.F., Kelly, E.W. & Crabtree, A. (Eds.) (2007) *Irreducible Mind: Toward A Psychology for the 21st Century* Rowman & Littlefield, Lanham, Maryland.
- Kingsnorth, P. (2017) *Confessions of A Recovering Environmentalist and Other Essays*. Graywolf Press, Minneapolis, MN.
- Korzybski, A.H. (1931/2000) A Non-Aristotelian System and Its Necessity for Rigour in Mathematics and Physics. In *Science and Sanity: An Introduction to Non-Aristotelian Systems and General Semantics*. International Non-Aristotelian Library Publishing Co., New York, pp. 747-761.
- Lovelock, James. (2009) *The Vanishing Face of Gaia: A Final Warning*. Allen Lane/Penguin Books, London; New York.
- Ophuls, W. (2011) *Plato’s Revenge: Politics in the Age of Ecology*. MIT Press, Cambridge, MA; London.
- Ophuls, W. (2012) *Immoderate Greatness: Why Civilizations Fail*. Createspace Independent Publishing Platform, North Charleston, SC.
- Samuels, A. (1986) *Jung & The Post-Jungians*. Routledge & Kegan Paul,
- Smil, V. (2011) Harvesting the Biosphere: The Human Impact. *Population Development Review*, 37, pp. 613-636.
- Taylor, S. (2018) *Spiritual Science*. Watkins Publishing, London.

In Florence Nightingale's Footsteps

*Global Citizens as Environmental and Civil Society
Activists: The UN 17 Sustainable Developmental Goals*
Barbara M. Dossey and Deva-Marie Beck

In January 2019, the World Health Organization (WHO) Executive Board designated 2020 the “Year of the Nurse and Midwife” in honour of the 200th birth anniversary of Florence Nightingale (1820-1910).⁽¹⁾ Thus, nurses and midwives are encouraged to perceive themselves as ‘global citizens’— people who recognize the growing interconnectedness among individuals, countries, and economies, and who identify as belonging to a world community.⁽²⁾ We also invite everyone to perceive themselves as ‘global citizens’ and find related, innovative ways to engage with nurses and midwives as they renew their healthcare commitment to healing, caring, and compassion, including for their respective communities.

While healthcare often focuses on acute or chronic illness, the elements necessary for good health are far more complex than we tend to recognize.^(3,4) There are many challenges confronting us as a planet. For example, the September 2019 global climate change strike protests — in more than 150 countries — highlighted the urgent need for reform in many industries and international commitment to saving our world.⁽⁵⁾ In addition to evolving environmental threats, serious health-related suffering (SHS) is also on the

rise. Researchers estimate that the global burden of SHS will be increasing exponentially — by 87% — worldwide.⁽⁶⁾ Poorer countries will be most impacted by this SHS avalanche. Species are disappearing. Cities and countries are confronting increasing environmental threats. Innumerable populations continue to navigate health challenges without access to the basic healthcare that is their human right.

Nightingale Identified Nursing's Wider Lens in 1893

Florence Nightingale (1820-1910) — the philosophical founder of modern secular nursing and the first nursing theorist — ranks among the most brilliant sanitary, medical, and social reformers in history.⁽⁷⁾ She identified this comprehensive lens in her last definitive 1893 essay titled ‘Sick-Nursing & Health-Nursing.’⁽⁸⁾ While she defined ‘sick-nursing’ as a need “nearly as old as the world, nearly as large as the world, as pressing as life or death.... that of sickness”, Nightingale also established an equally-significant ‘health-nursing’ which she addressed as ‘the art of nursing... the culmination of health.’⁽⁸⁾ Indeed, she defined health as “not only to be well, but to use well every power we have.”⁽⁸⁾

How would Nightingale have approached the health problems we face today?⁽⁹⁾ How would she have addressed the connections between domestic and neighborhood violence with the marginalized conditions people endure? How would she have connected health with the pollutants in our air, soil and water? Would she have linked today's obesity, poor nutrition and fast food with increases in poor health? How would she have shaped national and global public opinion to make health a priority for everyone? What would have been her approach to influence today's leaders and the media?

Nightingale noted and addressed the factors that can make direct impacts upon health — factors that are often the cause of poor health and disease. Anticipating these broader interdependent issues still concerning us today, she worked on achieving improved conditions for children, women, the hungry and poor, and for better programs of education for people on the margins of society.⁽⁷⁾ She identified factors now seen as environmental health determinants — like clean air and houses, sanitation and nutritious foods — and for factors now known as social health determinants — like socio-economic status, education, religion, culture, race/gender, family relationships, and employment — local to global.^(10,11)

Nightingale and The 17 United Nations Sustainable Development Goals (SDGs)

Since the year 2000, the United Nations has established a series of Global Goals that contribute to nursing’s wider understanding of health. First, the UN’s Millennium Development Goals (MDGs) identified global aims for quality of life to be achieved by 2015. Then, from 2010 to 2015 a series of global meetings were convened to create a Post-2015 Agenda. This resulted in identifying 17 UN Global Goals for Sustainable Development (SDGs) — adopted by all 193 UN Member States in 2015.⁽¹²⁾ More than a century ago, Nightingale anticipated and worked to achieve the precursors to these Global Goals.⁽³⁾

Health is a central common thread running through all 17 SDGs and these point directly back to similar issues that Florence Nightingale addressed in her lifetime. These SDGs connect the dots between the key factors — health determinants — needed to achieve a healthy world. The following discussion lists each SDG and provides examples of how Nightingale addressed these same issues in her lifetime.

SDG #1 No Poverty seeks to “end poverty in all its forms everywhere.”⁽¹²⁾ Nightingale was fully aware of the connections between health and poverty, lack of housing, clothing, and shelter — particularly for these impacts on children.⁽¹³⁾

SDG #2 Zero Hunger aims to “end hunger, achieve food security and improved nutrition, and promote sustainable agriculture.”⁽¹²⁾ During the 1860s, Nightingale worked to reform the Liverpool Workhouse Infirmary where hundreds of hungry, impoverished people crowded into unsanitary and unsafe conditions.⁽⁷⁾

SDG #3 Good Health and Well-being intends to “ensure healthy lives and promote well-being for all at all ages.”⁽¹²⁾ This was the central philosophy of Nightingale, who understood that the work of nurses and midwives shouldn’t be limited to caring for people during illness.⁽⁷⁾

Table 1 Social and Environmental Determinants of Health

Social Determinants	
■	Availability of resources to meet daily needs, such as educational and job opportunities, living wages, or healthful foods
■	Social norms and attitudes, such as discrimination
■	Exposure to crime, violence, and social disorder, such as the presence of trash
■	Social support and social interactions
■	Exposure to mass media and emerging technologies, such as the Internet or cell phones
■	Socio-economic conditions, such as concentrated poverty
■	Quality schools
■	Transportation options
■	Public safety
■	Residential segregation

Environmental Determinants	
■	Natural environment, such as plants, weather, or climate change
■	Built environment, such as buildings or transportation
■	Worksites, schools, and recreational settings
■	Housing, homes, and neighborhoods
■	Exposure to toxic substances and other physical hazards
■	Physical barriers, especially for people with disabilities
■	Aesthetic elements, such as good lighting, trees, or benches

(Adapted from ‘Healthy People.gov and the Office of Disease Prevention & Health Promotion at <https://www.healthypeople.gov/2020/about/foundation-health-measures/Determinants-of-Health>)



Figure 1. UN 17 Sustainable Development Goals (SDGs)
 Source. Reprinted with permission from the United Nations Sustainable Development Goals. <https://sustainabledevelopment.un.org/sdgs>.

SDG #4 Quality Education undertakes to “ensure inclusive and equitable quality education and promote lifelong

learning opportunities for all.”⁽¹²⁾ With characteristic passion, Nightingale addressed the links between health and education:



Barbara M. Dossey



Deva-Marie Beck

“Oh teach health, teach health, health, health, to the rich, and poor, to educated and, if there be any uneducated, oh teach it all the more — to women especially!”⁽¹⁴⁾

SDG #5 Gender Equality aims to “achieve gender equality and empower all women and girls” as a basic human right.⁽¹²⁾ Nightingale advanced this issue with her own work and deeply pondered women’s experiences in a time when gender equality was mostly non-existent: *“Women dream till they no longer have the strength to dream: those dreams against which they so struggle — so honestly, so vigorously and conscientiously, and so in vain — yet which are their life, without which they could not have lived.”⁽¹⁵⁾*

SDG #6 Clean Water and Sanitation seeks to “ensure availability and sustainable management of water and sanitation for all.”⁽¹²⁾ Nightingale understood that clean water is essential to health: *“In many parts of the country,” she wrote, “well water of a very impure kind is used for domestic purposes. And when epidemic disease shows itself, persons using such water are almost sure to suffer.”⁽¹³⁾*

SDG #7 Affordable and Clean Energy undertakes to “ensure access to affordable, reliable, sustainable and modern energy for all.”⁽¹²⁾ While Nightingale lived into the emerging era of electricity, she did not specifically anticipate ‘renewable energy.’ However, she often called for relevant and necessary observation of issues of concern: *“It must never be lost sight*

of what observation is for.... not for the sake of piling up miscellaneous information or curious facts, but for the sake of saving life and increasing health.”⁽⁷⁾

SDG #8 Decent Work and Economic Growth intends to “promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.”⁽¹²⁾ Nightingale consistently called for improved working conditions for nurses, including good pensions, sound living conditions during training, hospitals designed to save nurses’ energy and facilitate better patient care, and additional benefits such as a one-month annual holiday.⁽⁷⁾

SDG #9 Industry, Innovation and Infrastructure seeks to “build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.”⁽¹²⁾ Nightingale contributed to designing the original St. Thomas’ Hospital in London. Her innovations included placing windows for sunlight in order to make available to both patients and nurses.^(7, 16)

SDG #10 Reduced Inequalities aims to “reduce inequality within and among countries.”⁽¹²⁾ Nightingale — concerned with inequalities arising from cultural intolerance — valued various spiritual beliefs and stressed that all the world’s religions should be respected and studied. As she described, this universal perspective provides “unity to the whole — one continuous tread of interest to all these pearls.”⁽¹⁷⁾

SDG #11 Sustainable Cities and Communities undertakes to “make cities and human settlements inclusive, safe, resilient and sustainable.”⁽¹²⁾ Understanding the significance of health in communities Nightingale wrote, *“The health of the unity is the health of the community. Unless you have the health of the unity, you have no community health.”⁽⁸⁾*

SDG #12 Responsible Consumption and Production intends to “ensure sustainable consumption and production patterns.”⁽¹²⁾ Nightingale prioritized policies to sustain health over economic policies designed only to increase wealth. She wrote, *“Workpeople should remember that health is their only capital.”⁽⁸⁾*

SDG #13 Climate Action aims to “take urgent action to combat climate change and its impacts.”⁽¹²⁾ While working for decades on healthcare concerns in India, Nightingale understood that deforestation was associated both with droughts and with excessive rainfall that resulted in floods. *“[If] tree planting [were] properly carried out there would be equalized rainfall,” she wrote. “We are so stupid, like children: we go in cutting down wood without replacing it.... Tree planting would do much both to bring rainfall and to arrest floods.”⁽¹⁸⁾*

SDG #14 Life Below Water seeks to “conserve and sustainably use the oceans, seas and marine resources for sustainable development.”⁽¹²⁾ During her life, Nightingale took many ocean voyages and remarked about her love for the sea. *“When I was a child, I remember reading that Sir Isaac Newton said in his last hours: ‘I seem to myself like a child who has been playing with a few pebbles on the sea shore — leaving unsearched all the wonders of the great ocean beyond.’”⁽¹⁹⁾*

SDG #15 Life on Land intends to “protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.”⁽¹²⁾

From the 1850s to the 1880s, Nightingale worked with leaders throughout India to address the health of the Indian population, stressing the deforestation that causes loss of tillable soil during monsoon storms.⁽¹⁹⁾

SDG #16 Peace, Justice, and Strong Institutions seeks to “promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.”

⁽¹²⁾ Nightingale’s contributions to the care of the wounded Crimean War soldiers greatly inspired Henry Dunant, the founder of the International Red Cross and first recipient of the Nobel Peace Prize. In turn, Dunant’s ideas led to establishing, in 1864, the First Geneva Convention — the treaty still foundational for international humanitarian standards during war.
⁽²⁰⁾ In 1872, Dunant wrote, “Though I am the founder of the International Red Cross and the originator of the Convention of Geneva, it is to an Englishwoman that all the honour of that Convention is due. What inspired me to go to Italy during the war of 1859 was the work of Miss Florence Nightingale in the Crimea.”⁽²¹⁾

SDG #17 Global Partnerships for the Goals aims to “strengthen the means of implementation and revitalize the global partnership for sustainable development.”⁽¹²⁾ As a nurse and social reformer, Nightingale often built collaborative connections with like-hearted and like-minded people whose perspectives and professions were different than her own.⁽⁷⁾

From a timeless relevance of her own perspectives, Nightingale wrote a remarkably visionary article, published in *Fraser’s Magazine* in 1873. “What will the world be on August 11, 1999? What we have made of it . . . What 1999 will be, whether all these things are the same then as now, or worse, or better, depends, of course, in its proportion upon what we are doing now, or upon what we are not doing now.... In 1999, shall we not wish to have worked out what life, family life, social life, political life should be?

And not to have taken for granted that family life, social life, political life are to be as they are.”⁽²²⁾

Conclusion

Nightingale’s legacy informs the critical global health issues of our time — issues addressed in the UN Sustainable Development Goals (SDGs) — even as we perceive ourselves as ‘global citizens’ — defined as people who recognize the growing interconnectedness among individuals, countries, and economies, and who identify as belonging to a global community. With this understanding, we can bring healing, caring, and compassion back to healthcare. As ‘global citizens’ inspired by the vision of Florence Nightingale, we can use the SDG framework to be and become environmental and civil society activists contributing to global health — through local means — empowering each of us to nurture healthy people living on a healthy planet. Around the world, we invite all global citizens — through social media and related online advocacy — to create a healthy world with many endeavors, including signing our commitments to the ‘Nightingale Declaration for A Healthy World’ (Figure 2).⁽²³⁾



Figure 2. Nightingale Declaration for a Healthy World

Source: Used with permission. © Nightingale Initiative for Global Health. www.NIGHvision.net

Barbara Dossey, PhD, RN, AHN-BC, FAAN, HWNC-BC, is an internationally recognized integrative, holistic nursing pioneer, a nurse theorist (Theory of Integral Nursing; co-author, Theory of Integrative Nurse Coaching), and Florence Nightingale Scholar. She is Co-Director, International Nurse Coach Association (INCA) and Core Faculty, Integrative Nurse Coach Academy, North Miami, Florida; International Co-Director, Nightingale Initiative for Global Health (NIGH); and Director of Holistic Nursing Consultants (HNC), Santa Fe, New Mexico. She has authored or co-authored 25 books. She is an 11-time recipient of the prestigious American Journal of Nursing Book of the Year Award, and has received many other awards. She is on the American Nurses Association Healthy Nurse Healthy Nation™ Advisory Board. www.iNurseCoach.com www.dosseydossey.com www.NIGHvision.net

Deva-Marie Beck, PhD, RN, is a Nightingale scholar and global activist, who has been working—for nearly three decades—on citizen advocacy approaches to achieving the UN’s Global Goals, starting with the MDGs and now the SDGs—mainly focused on her nurse colleagues, who are, across the world, prime stakeholders for achieving these Global Goals related to health and health determinants. Since 2006, Dr. Beck has served as International Co-Director of the Nightingale Initiative for Global Health (NIGH), Gatineau, Quebec, Canada, and Geneva, Switzerland leading work on UN Briefings, group discussions, website updates, videos, campaigns, projects, journal articles, book chapters, textbooks and keynote presentations—worldwide—and, recently, to achieve NIGH’s ‘Special Consultative Status’, granted by the United Nations Economic & Social Council (UN ECOSOC) in 2018. She is also currently working closely with a motivated inter-disciplinary team of SDG advocates—led by nurses, teachers, and youth leaders—based in East Africa. www.NIGHvision.net

References

1. World Health Organization (2019). WHO Executive board of directors declares 2020 as the year of the nurse and midwife. Retrieved from <https://www.who.int/hrh/news/2019/2020year-of-nurses/en/>
2. Beck, D. M. & Dossey, B. M. (2019). In Nightingale's footsteps—individual to global: From nurse coaches to environmental and civil society activists. *Creative Nursing: A Journal of Values, Issues, Experience and Collaboration*, 25(33): 258-263.
3. Dossey, B. M., Rosa, W. E. & Beck, D. M. (2019). Nursing and the sustainable development goals: From Nightingale to now. *American Journal of Nursing*, 119(5): 40-45.
4. Rosa, W. (2017). *A New Era in Global Health: Nursing and the United Nations 2030 Agenda for Sustainable Development*. New York, NY: Springer Publishing.
5. Ott, H. (2019, September 20). Millions hit the streets for global climate change strike. *CBS News*. Retrieved from <https://www.cbsnews.com/live-news/global-climate-change-strike-protests-today-2019-09-20-live-updates/>
6. Sleeman, K.E., de Brito, M., Etkind, S., Nkhoma, K., Guo, P. Harding, R. (2019). The escalating global burden of serious health-related suffering: projections to 2060 by world regions, age groups, and health conditions. *The Lancet Global Health*, 7(7), E883-E892.
7. Dossey, B. M. (2010). *Florence Nightingale: Mystic, Visionary, Healer*. Philadelphia: F. A. Davis. pp. 267-77, 291-9, 302-3.
8. Nightingale F. (1893). Sick-nursing and health-nursing. In: Burdett-Coutts A, editor. *Woman's Mission: A Series of Congress Papers on the Philanthropic Work of Women by Eminent Writers*. London: Sampson Low, Marston and Company, Ltd.; p. 184-205.
9. Dossey B. M., Beck D. M., Oerther S., Manjrekar P. (2017). Florence Nightingale's legacy: The rationale for an integral worldview in achieving the sustainable development goals. In Rosa, W. (Ed.). *A New Era in Global Health: Nursing and the United Nations 2030 Agenda for Sustainable Development*. New York: Springer; 149-178.
10. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2019). HealthyPeople.gov: Social determinants of health. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>
11. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2019). HealthyPeople.gov: Environmental health. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/environmental-health>
12. United Nations. (2018). The Sustainable Development Goals Report 2018. Retrieved from <https://unstats.un.org/sdgs/files/report/2018/TheSustainableDevelopmentGoalsReport2018-EN.pdf>
13. Nightingale F. (1860). *Notes on Nursing*. London: Harrison and Sons; pp. 1, 15, 70.
14. McDonald L., editor. (2001). Florence Nightingale's spiritual journey: biblical annotations, sermons, and journal notes. *Collected Works of Florence Nightingale* Waterloo, ON: Wilfrid Laurier University Press; 16 vols.; 2; p. 536.
15. McDonald L., editor. (2008). Florence Nightingale's suggestions for thought. *Collected Works of Florence Nightingale* Waterloo, ON: Wilfrid Laurier University Press; 16 vols.; 11; p. 584.
16. Richardson R. (2010). Florence Nightingale and hospital design. London: King's College; Online exhibitions; <http://www.kingscollections.org/exhibitions/specialcollections/nightingaleand-hospital-design/florence-nightingale-and-hospital-design>
17. Cook, E.T. (1913). *The Life of Florence Nightingale*. London: Macmillan and Co., Ltd.; 2 vols.; 1; p. 74.
18. Vallée G, editor. (2007). Florence Nightingale on social change in India. *Collected Works of Florence Nightingale*. Waterloo, ON: Wilfrid Laurier University Press; 16 vols.; 10; p. 293.
19. Nightingale F. (1872). Address from Miss Nightingale to the Probationer-Nurses in the 'Nightingale Fund' School at St. Thomas' Hospital, and the Nurses who were formerly trained there. In Dossey, BM, Selanders, L, Beck, DM & Attewell, A. (2005). *Florence Nightingale Today: Healing, Leadership, Global Action*. Silver Spring, MD: NursesBooks.org. pp. 204-211.
20. International Committee of the Red Cross. (2010) *Founding and Early Years of the ICRC (1863-1914)*. Retrieved from <https://www.icrc.org/en/document/founding-and-early-years-icrc-1863-1914>
21. Cook ET. (1913). *The Life of Florence Nightingale*. London: Macmillan and Co., Ltd.; 2 vols.; 2; p. 205.
22. Nightingale, F. (1873, July). A subnote of interrogation; what will our religion be in 1999? *Fraser's Magazine (New Series)*, 8, 25–36.
23. *Nightingale Declaration for A Healthy World (n. d.)*. Retrieved from <http://www.nighvision.net/nightingale-declaration.html>

Barbara and Deva-Marie will be speaking with Dr Larry Dossey at our event in London on May 16.



Dr. Zhi Gang Sha



Rulin Xiu

Soul Sickness and Soul Healing



Dr. Zhi Gang Sha¹ and Rulin Xiu²¹

¹ *Institute of Soul Healing and Enlightenment, 30 Wertheim Court, Unit 27D, Richmond Hill, Ontario L4B 1B9, Canada*

² *Hawaii Theoretical Physics Research Center, 16-266 E. Kipimana St, Keeaau, HI 96749, USA*

Summary

Soul sickness is mentioned in many spiritual and religious texts. In this paper, we use quantum physics to scientifically explain soul, soul sickness, why soul sickness is the root cause of all sicknesses and difficulties in life, and how to heal soul sickness. This work is based on the insight that everything is made of matter, energy, and information. Soul or spirit is in fact the information content carried by one's vibrational field. Soul sickness is the sickness caused by negative information, which is the disorder and disconnection within one's vibrational field. Soul healing is essential and crucial for healing all sicknesses, difficulties, and challenges in our lives at a deeper level. We also show that soul healing techniques are easy, simple, and pleasant to implement by medical doctors, health practitioners, psychiatrists, business consultants, and other professionals, in conjunction with any other healing modality and medical treatment to enhance their efficacy. People can also apply soul healing techniques to heal themselves physically, mentally, emotionally, financially, and spiritually.

There are many different kinds of sicknesses, for example physical sickness, energetic sickness, emotional sickness, mental sickness, relationship sickness, financial sickness, spiritual sickness, and other sicknesses.

Modern medicine treats sickness mostly through treating the physical body, such as the liver, heart, kidney, circulatory system, digestion, skin, blood, cells, genes, and more. On the other hand, Traditional Chinese Medicine (TCM) considers that most sicknesses are due to energetic imbalances and treats them by removing energy blockages through herbs, acupuncture, massage, and other means.

In this work, we propose the existence of soul sickness. Soul sickness is mentioned in many spiritual and religious texts. In this paper, we will use quantum physics to explain soul, soul sickness, why soul sickness is the cause of all sickness, and how to heal soul sickness.

This work is developed from Tao Science [Refs 1, 2, 3]. Tao Science is based on ancient Tao wisdom combined with the mathematical

framework developed in quantum physics. Tao Science can address three issues which current natural science can't deal with. First, current natural science deals only with the physical realm, it does not address consciousness or spirituality. Tao Science integrates natural science and spirituality together at the most fundamental level. It can scientifically explain consciousness and spiritual wisdom and phenomena. Second, current natural science cannot describe the source or origin of everything. Tao Science integrates Tao wisdom about the source and origin of everything into quantum physics, and thus brings revolutionary breakthroughs in science and technology [Refs 4, 5, 6, 7, 8]. Grand unification theory, string theory, relativity theory, and many other physics theories can be derived from Tao Science [Ref 5]. Tao Science gives a new breakthrough understanding about space and time. It can show mathematically how and why the universe is a projection from a hologram. It gives a new, simple interpretation of quantum physics. Third, current natural science, especially medical science, can't address the root cause of all sickness, difficulties, and challenges.

Tao Science can explain their root cause and give ways to heal them. This is the focus of this paper.

In the following, we will first present how Tao Science uses quantum physics to define and study soul. Then we will introduce the important concept of positive and negative information. We will show that soul sickness is the sickness due to the negative information within someone or something. Soul sickness is caused by our past action that brings about negative information. Finally, we will share some soul healing techniques.

Quantum Physics of Soul

According to quantum physics, everyone and everything is a vibrational field which can be described by a wave function. In Tao Science, we show that this vibrational field carries information, energy, and matter [Ref 3]. Matter is physical reality. Energy moves and changes matter. Information gives shape and form to matter and energy. Information determines our physical world.

Information has three aspects: the content of information, receiver of information, and processor of information. Tao Science tells us that our spirit or soul is simply the content of information in our vibrational field. Here, we don't differentiate spirit and soul. The spiritual heart is the receiver of information, and the mind is the processor of information.

In quantum physics, vibrations can be quantum entangled with each other. For quantum entangled vibrations, the observation of one vibration can instantly affect the states of the other vibrations with which it is quantum entangled. Vibrational entanglement makes it possible to obtain information or change the state of another person or object without being in direct contact with them. knowing, telepathy, clairvoyance, distance healing, instant healing, teleportation, and more. The more vibrational entanglement we have with others, the more miraculous spiritual or soul power we have. In quantum physics, the detectors we use and how we place the detectors determines the quantum

phenomena we observe. Our spiritual heart and mind correspond to the detectors used in quantum physics for measuring quantum phenomena. The information of soul is manifested through our spiritual heart and mind. Physical reality is manifested through the process:

Soul -> Heart -> Mind -> Energy
-> Matter

Soul gives the content of the information, heart receives the information and activates the mind. Mind processes the information and directs where the energy goes, and energy moves matter. Matter is what we experience and observe in our physical reality.

For example, one can give oneself the message that one is loved by everyone. This message can open one's heart to receive love and offer love to others. This in turn leads the mind to process the received information in the way that one is loved so one does not need to worry or be stressed about anything. One will take action based on the message that one is loved, thus bringing more love into one's life. Consequently, one will experience a loving, healthy, and successful life. On the other hand, if one gives oneself the message that one is not loved by others and the world, then this one will not open to receive love from others. After receiving and processing this message, this one will tend to worry and be anxious about things and take action based on fear, anxiety, and stress. This can lead to sickness, unpleasant experiences, and even failures in relationships, finances, and career.

From this manifestation process, we can see that, although everything we experience is matter, matter is determined by soul, heart, mind, and energy. Soul is the starting point of the manifestation. Similar to how the information in our bank account determines the amount of money we have, soul, the content of the information in our vibrational field, essentially determines every aspect of our lives and acts as the root cause of everything. Heal the soul first; then healing and transformation of every aspect of life will follow.

What is Soul Sickness?

In Tao Science, we propose that there are two kinds of information: positive information and negative information [Ref 14]. Negative information relates to the unrelated possibilities, disorder, disconnection, and uncertainty in a system. The measure of negative information is entropy. The message that one is not loved is negative information because it can lead to disconnection.

Positive information relates to the order, connection, and certainty that a system has within itself and with others. For life to occur, order and connection must be present. In a healthy body, every cell is connected with every other cell and behaves in an orderly way. Healthy bodies have positive information. The message that one is loved is positive information because it can lead to more connections. The more positive information we have, the healthier we are. The measure of positive information is negative entropy.

As defined here, information described by Claude Shannon and other physicists is negative information. Negative information produces sickness, decay, difficulties, ignorance, and challenges in our lives. Positive information brings health, longevity, joy, wisdom, and success into our lives. Increasing positive information brings more of these positive qualities into our lives.

In Tao Science, we define soul sickness as the sickness caused by negative information, disorder, and disconnection within our vibrational field. To heal soul sickness is to transform negative information into positive information.

The manifestation process shows that soul sickness is at the root cause of all sicknesses, challenges, difficulties, and disasters in life. To heal soul sickness will bring healing to all of these areas of life.

The cause of soul sickness is our past actions, including negative thoughts, speech, listening, sights, tastes, smells, feelings, movement, and other actions that create or increase the negative information within us. Because the vibrational fields of our ancestors and even descendants are in part vibrationally entangled with our vibrational field,

the past actions of our ancestors and the future actions of our descendants can also create negative information in our vibrational field.

Soul Healing Techniques

To heal soul sickness, conduct actions to transform the negative information in our vibrational field into positive information through positive thoughts, speech, listening, sights, tastes, smells, feelings, movement, and other actions.

Healing of soul sickness includes the following six steps:

1. Asking for and offering forgiveness for all the actions by our self, our ancestors, or our descendants that have caused sickness, difficulties, and challenges for others.
2. Being grateful for our challenges and difficulties for giving us the opportunity to remove the negative information in our vibrational field and to transform it into positive information.
3. Determining the negative information, including the negative messages given to one's self and to others, that has caused sicknesses, challenges, and difficulties and replacing it with positive information and positive message.
4. Receiving and invoking positive messages.
5. Feeling, experiencing, and processing positive messages.
6. Taking action based on positive information and messages.

Soul healing techniques include:

1. Reciting phrases carrying positive information and messages.
2. Invoking, or giving positive information.
3. Staying in an environment having vibrations that carry positive information.
4. Feeling and offering love, forgiveness, compassion, light, humility, abundance, gratitude, and service to others.
5. Using body positions to bring more positive information and energy into one's body.

6. Using imagination and creative visualization to bring light and love to oneself and others.

One example of a soul healing technique is the placebo effect. Tests of the efficacy of new medical treatments often involve comparing whether the use of a given treatment benefits patients more than a fake treatment. The fake treatment provided is called a "placebo." Many research studies have found the placebo effect to be "a valuable treatment" for many sicknesses. The placebo effect is an example of the most basic kind of soul healing phenomenon. In the placebo treatment, patients receive a positive message that they are receiving medical treatment. The efficacy of the placebo for healing demonstrates that giving positive information, or soul healing, is a valuable treatment.

Soul healing is different from current medical treatment in three ways. First, soul healing addresses the root cause of all sicknesses and challenges. Current medical treatment usually focuses on changing the matter or energy of the body. Soul healing focuses on changing the information content within the soul, heart and mind, which is the root cause of all difficulties and illnesses. Second, current medical treatment usually requires direct physical touch, input, or interaction. Soul healing can take place over distance without direct physical touch. Third, soul healing can be applied to every aspect of life, including the physical, emotional, mental, and spiritual aspects of existence, as well as in relationships, finances, and more. Current medical treatment occurs mostly on the physical level. Its effect on other aspects of life is rather limited.

Conclusion

In this work, we show from the quantum physics point of view that the negative information existing in our vibrational field plays a critical role in causing sickness and the difficulties in our lives. Soul sickness, the existence of negative information within us, is the root cause of all sicknesses, difficulties, and challenges in our lives. Soul healing is essential and crucial for healing at the deepest level.

Soul healing techniques are simple, easy, and pleasant to implement by medical doctors, health practitioners, psychiatrists, business consultants, and other professionals. They can be used in conjunction with any other healing modalities and medical treatments to enhance their efficacy. People can also use soul healing techniques to heal themselves physically, mentally, emotionally, financially, and spiritually. These techniques can greatly empower people to heal and transform their lives.

We recommend that all medical doctors, psychiatrists, health practitioners, business consultants and managers, and everyone else learn and apply soul healing techniques. We will present and discuss in more detail soul healing techniques and their efficacies in our future work.

Acknowledgements

We want to thank Edward Wuenschel for editing this paper and many others for supporting this work.

References

1. Sha, Zhi Gang, Xiu, Rulin, Tao Science. Heaven's Library Publication Corp. ISBN 978-1-945949-88-3 (2017).
2. Sha, Zhi Gang, Xiu, Rulin, Soul Mind Body Science System. Benbella Books. ISBN 978-1-940363-99-8 (2014).
3. Zhi Gang Sha and Rulin Xiu, "Composition of existence and the definition of spirit, heart, and mind according to quantum physics". International Journal of Information Research and Review Vol 5 (1) 5072-5075, Jan 2018
4. Zhi Gang Sha and Rulin Xiu, "Derivation of Galaxy Rotation Curve from the Universal Wave Function Interpretation of String Theory". American Based Research Journal Vol 7 (01)- 2018
5. Zhi Gang Sha and Rulin Xiu, "Derivation of Multiverse from Universal Wave Function Interpretation of String Theory". Journal of Physical Science and Application 7 (6) (2017) 1-5
6. Zhi Gang Sha and Rulin Xiu, "String Theory Explanation of Large-Scale Anisotropy and Anomalous Alignment". Reports in Advances of Physical Sciences, Vol. 1, No. 3 (2017) 1750012 (9 pages)
7. Zhi Gang Sha and Rulin Xiu, "Inflation Scheme Derived from Universal Wave Function Interpretation of String Theory". Journal of Physical Science and Application, 2017, 7 (4): 33-37
8. Zhi Gang Sha and Rulin Xiu, "Space, Time, and the Creation of Universe". Philosophy Study, 2017, 7 (2): 66-74.



Cats are People too: the Biologist's Dilemma

Matt Colborn

Last autumn, we put sticklebacks in the pond. Almost immediately, they sped down to the thick vegetation at the bottom. We didn't see hide nor scale of them until the spring, when a male emerged, patrolling near the surface in breeding colours. Pretty soon, more males appeared, aggressively staking out territorial claims in preparation for breeding and nesting. This dramatic change of behaviour was prompted by hormonal changes, triggered by an increase in the water's temperature and day length. The behavioural change came fairly swiftly in a fashion that could be termed a robotic response to environmental cues.

Reading accounts of animal behaviour, it's sometimes difficult to shake the 'robot' impression. Another example would be the attraction of male moths to female. Male moths have antennae covered with hairs. Those hairs contain smell receptors, tuned to respond to pheromone molecules. The pheromone molecule hits the receptor and stimulates it, triggering an action potential. The action potential travels to a part of the brain called the *glomerulus*. The *glomerulus*, in turn, sends signals to the wing so that the male flies upwind.

In one YouTube video, a silkworm is placed in a y shaped glass tube.

A stick soaked with a pheromone is poked into one branch of the Y. The moth shivers and then scurries rapidly towards the hormone laced stick. In another video, a researcher explains carefully how they worked out the connectome governing these sorts of responses in moths. He also demonstrates a simulation that successfully mimics the functional activity of the connectome. From a certain point of view, a previously obscure response of the moth is reduced to inner 'wiring.' Mystery is dissolved, and the robot within is revealed.

This sort of work is fascinating but can also be a little disconcerting. In these accounts, an apparently purposive action is reduced to the automatic response of a system adapted to ensure the arrival of the next generation of moths. No mind is required. Wyatt, my source for the moth example, writes pretty much as if animals actually *were* robots. The language of the information age is used throughout the text; animals have 'plug in sensors' for 'information.' 'Neural circuits' process that information. The action of animals is broken down into complex webs of these neural circuits, plus hormonal systems. Simple box diagrams reinforce this sense that we are dealing with essentially mechanical or electronic machines.

I recall this from my time in the lab, where flies and bees would be occasionally referred to directly as machines that were little different from the robot bug that scuttled about in the upstairs offices. To a significant degree, this attitude was understandable. Behavioural experiments on animals seem to confirm repeatedly that apparently complex behaviours are regulated by natural processes that can be 'cracked' or 'hacked' via electrodes, fMRI and powerful computer modelling. The more one works through the research papers, the more the thought occurs that animal behaviour might largely or entirely be explicable in terms of 'mindless mechanisms.' And if this is so, then what about humans? Are human beings, in the final analysis, like the moths, flying mindlessly towards behavioural cues according to a particular configuration of our connectome?

Higher Order Reductionism?

Robert Sapolsky's recent book *Behave* tackles the issue of biological explanations fairly directly. The book, about our contradictory propensities to violence and to compassion, begins with an insightful discussion of the nature of causation in biology and neuroscience. Sapolsky rejects hard-line molecular reductionism, acknowledging that human

behaviours involve ‘brain chemistry, hormones, sensory cues, prenatal environment, early experience, genes, both biological and cultural evolution and ecological pressures, among other things.’ He also states that splitting these subjects into tidy categories is a problem, emphasising the need to resist ‘categorical thinking.’ Instead, he claims, multiple explanations must be sought for human behaviour:

‘...it is impossible to conclude that a behaviour is caused by a gene, a hormone, a childhood trauma, because the second you invoke one type of explanation, you are *de facto* invoking them all.... A “neurobiological” or “genetic” or “developmental” explanation for a behaviour is just shorthand, an expository convenience for temporarily approaching the whole multifactorial arc from a particular perspective.’

This is an important concession but still counts as ‘a higher order of reductionism,’ as Theodore Roszak puts it. The machine metaphor is still present, but it is computational instead of the clockwork or steam engines of former ages. The fact that complexity is accounted for does not alter the basic issue of the dilemma: that the overarching worldview still reduces life to a mechanical pattern. The addition of culture doesn’t modify this conclusion. Like B.F. Skinner in *Walden Two*, one can have a purely mechanistic view of human and animal behaviour and still believe in the profound influence of culture. Cultural determinism is still determinism.

This worldview is especially stark in some contemporary approaches to consciousness. In a recent paper, Seth and Tsakiris characterise human beings as ‘beast-machines.’ The paper is radical in the sense that it rejects the idea of ‘mind and self as substrate-independent forms of information processing.’ This means they (implicitly) reject Silicon Valley proposals that human consciousness might be ‘uploaded’ into the cloud, favouring instead an embodied view of consciousness.

They evoke the idea of a ‘beast-machine,’ a term first coined in 1748 by Julien de La Mettrie, stating that ‘if animals are beast machines then so are humans, since humans are also animals.’ Conscious experiences arise, they suggest, as a result of ‘our physiological reality [and embodiment], by the drive to stay alive that animates all living creatures....’ They conclude that ‘We perceive the world around us, and ourselves within it because of, and not in spite of, the fact that we are beast machines (p. 979).’

The basic drive here is noble. It is to reject Descartes’ assumption that animals were mere mechanisms without soul or consciousness. They also wish to assert evolutionary continuity between humans and animals, a necessary correction to claims of human exceptionalism. The (implied) rejection of the simplistic ideas of those in Silicon Valley who seek electronic immortality is also welcome.

However, their description of the working of the brain and nervous systems is still within the mind-as-computer frame of classical cognitive science. The nervous system, we are told, makes ‘Bayesian best guesses,’ that are ‘neurally encoded’ from ‘afferent sensory data.’ The brain and nervous system runs on ‘computational principles.’ The claim that consciousness needs to be embodied and can’t be free floating shouldn’t distract from the fact that the framework remains solidly conventional cognitive science.

This frame is not a bad thing in itself, but it has significant limitations and the outcome of taking the machine metaphor literally seems to me less than desirable. Rather than *inflating* the status of animals by acknowledging their unique and precious forms of sentience, humans and animals are to be *reduced* to ‘beast machines.’ In other words, higher order reduction is embraced and the deeper problems of consciousness are totally ignored.

Roszak presents several objections to this kind of higher-order reductionism. First, he suggests

that it ends up being as pessimistic a doctrine as the older style reductionism; humans might be ‘beast machines’ as opposed to pure information processors but we are still ‘nothing but’ beast machines, with the emphasis on *machines*. Roszak suggests that this

....formulation of a new science of systems is as grave an assault on holistic systems as Newtonian atomism. Worse still, it lends itself to a “robot image of man” (sic)....

A ‘robot image’ of humans and animals has a number of moral consequences. Roszak worried that it would ‘easily lend itself to a kind of managerial authoritarianism,’ but there are deeper problems. The main one is that organisms come to be seen as *instruments*.

The consequences

The worldview of machines is one of manipulation and control. It is the worldview of the left brain, according to Iain McGilchrist’s schema. No doubt the authors of the ‘beast machine’ paper have a basically humanitarian outlook. This is in common with many scientists who are concerned with issues of animal welfare, wishing to avoid causing unnecessary pain and suffering in the course of their research.

Despite this, compassion can be undermined by a purely mechanistic approach to biology. Recently, there has been a great deal of fuss about the advent of mind-reading technology for rats. This involved the insertion of microprocessors into a rat brain in order to read the pattern of neural activation of the place cells in the hippocampus. The one thing the ‘mind-reading’ of rats did not seem to do was increase the empathy of the researchers to the animal’s suffering.

In wider culture, too, an unwavering devotion to the machine metaphor can have a very negative effect on animal welfare. Take this quote from a Walls executive:

‘The breeding sow should be treated as a valuable piece of machinery, whose function is to pump out baby pigs like a sausage machine.’

This sort of attitude — an unthinking, monstrous abuse of sentient beings — is fostered by a culture that interprets nature in mechanistic terms. McGilchrist frames this in terms of the dominance of the left hemisphere’s worldview: an outlook that is dehumanized, purposeless, favouring component parts over holistic wholes. ‘Following the left hemisphere’s path,’ he suggests, has ‘involved the destruction and despoliation of the natural world’ because the left hemisphere views the ‘body as a machine, and the natural world a heap of resources to be exploited.’ Humans, machines and the wider world are depersonalised, ‘disenchanted’ in an aggressive program to forward the left brain’s agenda of material progress and the denigration of anything that falls outside its narrow purview. According to McGilchrist, the triumph of the left hemisphere is almost complete, and the consequences have been severe.

I’d suggest that the idea of mechanism stops being useful and becomes tyrannical when the idea’s metaphorical content is forgotten and it is seen as a literal truth. (The left hemisphere is literalistic, McGilchrist says. But the many ‘successes’ of biology and cognitive science should not distract from this framework’s metaphorical nature). A broader perspective is surely needed.

Recovering persons

A tonic to the abstract ‘beast-machine’ outlook is William Kotzwinkle’s satirical novel *Doctor Rat* (1976). The novel is narrated by a castrated lab rat that comments on the experiments going on around him. Doctor Rat strives to maintain scientific neutrality — and yet it is plain that many of the experiments he observes are monstrously cruel and often unnecessary. This novel shifted my own outlook on animal research, away from comfortable

rationalisations. It’s provocative because it forces us to see things — in a stylised way — from the animals’ point of view. This is an important cognitive shift, and one that cannot, I suggest, be made from within a purely mechanistic, reductive framework.

The reason for this is probably because personhood is a holistic property, or set of properties, possibly strongly emergent. These properties, being holistic, are obscured or even lost when an animal is broken into functional parts.

So some sort of cognitive shift seems necessary to counter the distancing and abstracting effect of much scientific work. Stephen Harding has spoken of his experiences in the woods near Oxford whilst completing his doctorate in muntjac ecology. He contrasts the moments of collecting quantitative data for his doctorate with the times when he was free to observe the deer and the woodlands in a more intuitive manner. From this came an appreciation for the need of a more holistic science where these subtle intuitions were not erased. Harding also writes of an important shift in perception, akin to mystical experience, when the aliveness of the living planet is unveiled to the participant, sometimes in an insistent way.

He cites an incident from *The Sand County Almanac* when a hunting Aldo Leopold came across a dying wolf. Previously, Leopold had agreed with the wolf eradication policy of the US government, but this changed when he saw ‘green fire’ in the eyes of a dying wolf.

‘I thought that because fewer wolves meant more deer, that no wolves would mean a hunter’s paradise. But after seeing the green fire die, I sensed that neither the wolf, nor the mountain agreed with such a view.’

For Leopold, the personhood of the wolf and the mountain were revealed in a moment that caused for him a permanent shift in consciousness; he went on to

become one of the founders of the environmental movement in America. This reassertion of personhood seems to challenge, quite severely, the somewhat pallid discussions of animals as flesh computers or ‘beast-machines.’ Was the dying wolf a ‘beast-machine? Or is it better to think of him as a whole being, integrally embodied in its world?

This intuition can be confirmed by everyday observations of animals. I do not respond to my cat as if she is a robot or a ‘beast machine’ but as a person. She has a character and idiosyncratic foibles. In order to understand these particular aspects of her being, I don’t feel the need to map her connectome or shove electrodes into her skull, but instead to observe and interact with her. She is a purposive, conscious, inquisitive person who is capable of suffering pain and enjoying pleasure. This is possibly a controversial statement, but I suspect that these aspects of my cat would be difficult to pinpoint within her connectome.

This claim admittedly throws up problems. First, there’s the problem of whether ‘persons’ should be thought of as human beings only, or whether the term can be also be applied in the non-human world. The second problem is anthropomorphism — wrongly projecting human qualities onto animals. There’s not the space to address these issues in full, but careful observation and judgments made in context seem to me the only way to resolve both issues.

Another counter to these claims are the observations I made at the beginning of the piece concerning the robotic behaviour of animals (and humans). There are many more examples I could cite. How is it possible to reconcile robotic behaviour with signs of personhood? I would suggest a principle of complementarity. That is, it is possible to approach animals and people *either* as functional machines *or* as persons. Many biologists would possibly agree here. The mechanistic dogma — one aspect of scientific materialism — tends to insist that even if an organism is *apparently* a person, they are really ‘merely’

functional machinery. A tell-tale indication of this is the frequency with which advocates of materialist, functionalist approaches to consciousness claim that being, self and consciousness are ‘user illusions’ or ‘hallucinations.’ The most flagrant example of this is Keith Frankish’s ‘illusionism,’ where inner life is effectively denied or negated, simply because it cannot be squared with a mechanistic view of things — his claim is that we don’t have an inner life, just the ‘illusion’ of one. What is ‘real’ is the machinery that runs the illusion.

I would like to reverse this order of priority. What if instead of claiming that animals were machines that sometimes seem personlike, we claimed that animals were persons whose natural functions can be understood to a degree using machine metaphors and frameworks of understanding? Such a move would dethrone the mechanistic ideology by insisting upon the primacy of the personal. What would the world look like then?

The resurgence of animism

One consequence might be a shift to a form of ‘animism.’ There are lots of variants of animism and most traditional versions have supernatural elements. This alone would be enough to lead to their rejection by most biologists. There would also be cultural resistance: in *Chance and Necessity* (1970) Monod insisted that science was only made possible by the repudiation of ‘ancient covenant’ of animism. However, the mechanistic approach seems to me increasingly inadequate to address the primary problem that humanity faces, which is to re-integrate itself in a harmonious way with the rest of the natural world. It seems to me that some more integrative alternative is forced upon us for our survival and wellbeing, and for the survival and wellbeing of other species.

In *Dark Green Religion*, Taylor points out that there exist naturalistic versions of animism or ‘Gaian Naturalism.’ The key feature

is that animism refers to ‘a shared perception that beings or entities in nature have their own integrity, ways of being, personhood, even intelligence.’ This seems to me a possibly more acceptable version of animism, one that might incorporate scientific knowledge within a wider worldview that allows the re-integration and acknowledgment of the more subtle features of animals and human animals.

This proposal might be too radical for some. However, it seems to me that the magnitude of the ecological crisis can only be met with a radical shift in perception. The terrible cruelties we inflict on animals (let alone each other) can only be met with a comparable seismic shift. So it seems to me way past time to move beyond an unthinking love of the machine, and acknowledge the personhood of our fellow biospheric travellers. Only then might healing be possible.

Matt Colborn (D.Phil, MSc. Cognitive Science). The author of Pluralism and the Mind (2011), he is currently working with the Alef Trust and also as a freelance. Academic interests include Consciousness Studies & philosophy of mind, animal behaviour and cognition.

Acknowledgements: Thanks to Iain McGilchrist, Les Lancaster, Alan Gauld, Ed Kelly, Rupert Sheldrake and Rory Newman & Sue Thomason for their helpful comments on earlier drafts of this article.

ⁱ Leal, W. (2008). Bombyx Mori and Bombykol, <https://www.youtube.com/watch?v=6dwy7HcCuVI>, accessed on 05/10/2019.

ⁱⁱ Slizerman, E., Riffell, J. & Kutz, J.N. (2013). <https://www.youtube.com/watch?v=FIRYjVnqBp0>, accessed on 04/10/2019.

ⁱⁱⁱ Wyatt, T. D. (2017). *Animal Behaviour a very short introduction*, Oxford: Oxford University Press.

^{iv} Sapolsky, R.M. (2017). *Behave*, London: Vintage, ebook.

^v Roszak, T. (1992). *The Voice of the Earth*, Grand Rapids, MI, Phanes, p. 169.

^{vi} Seth, A.K. & Tsakiris, M. (2018). Being a Beast Machine: The Somatic Basis of Selfhood, *Trends in Cognitive Sciences*, November 2018, Vol. 22, No. 11, pp 969—981.

^{vii} Roszak, 1992, p. 169.

^{viii} McGilchrist, I. (2009/2018). *The Master and His Emissary*, London: Yale University Press.

^{ix} Xu, H.et al. (2019). Assembly Responses of Hippocampal CA1 Place Cells Predict Learned Behavior in Goal-Directed Spatial Tasks on the Radial Eight-Arm Maze, *Neuron*, VOLUME 101, ISSUE 1, P119-132.E4, JANUARY 02, 2019, DOI:<https://doi.org/10.1016/j.neuron.2018.11.015>

^x Quoted in Ricard, M. (2018). The uncomfortable truth: on the treatment of animals. In Dunne, J. & Goleman, D. (eds.) *Ecology, Ethics and Interdependence*, Wisdom Publications: Somerville, MA, p. 133.

^{xi} McGilchrist, 2009/2018, p. 434.

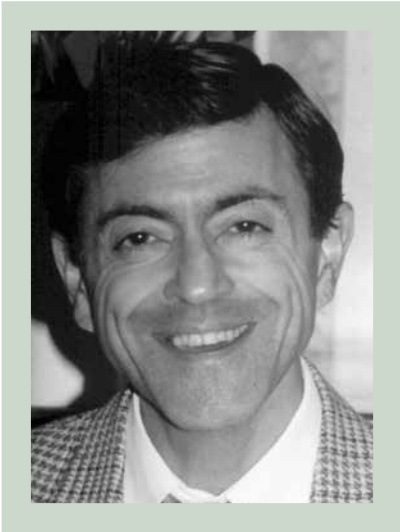
^{xii} Cited in Harding, S. (2009) *Animate Earth*, Green Books, Totnes, Devon, p. 42

^{xiii} It has also been suggested to me that there is a fundamental difference between humans and animals because humans have the capacity to transcend mechanical consciousness and animals don’t. Possibly. The capacity for the transcendence of mechanical habits, however, can’t have come out of nowhere; my suspicion is that it has deep evolutionary roots and is perhaps an outcome of the creativity that seems innate in the universe. See also Kauffman, S.A. (2016) *Humanity in a Creative Universe*. London: Oxford University Press.

^{xiv} Frankish, K. (2016). Illusionism as a theory of consciousness, *Journal of Consciousness Studies* 23 (11-12):11-39 (2016)

^{xv} Mary Midgley pulls these suggestions apart in Midgley, M. (2014). *Are You An Illusion*. Durham, Acumen.

^{xvi} Taylor, B. (2010). *Dark Green Religion*, Berkeley: University of California, p. 15.



The Promise of Promissory Materialism?

Or, Two Steps Back to Regress Three Steps Backwards?

Edi Bilimoria

Sir Karl Popper and Sir John Eccles in *The Self and Its Brain* (Springer International, 1977) explicitly state ‘materialism has thus transcended itself’; therefore, that promissory materialism is essentially an act of faith.

Nonetheless, the title on the front cover of *New Scientist*, 21 September 2019 proudly announces: ‘THE TRUE NATURE OF CONSCIOUSNESS: WE’RE FINALLY CRACKING THE GREATEST MYSTERY OF YOU’. This is in connection with *Rethinking Consciousness – A Scientific Theory of Subjective Experience* by Michael Graziano, professor of psychology and neuroscience at Princeton University. It is the latest in a series of learned papers and books offering the promise that the full and final materialistic solution to the hard problem of consciousness is just looming.^[1] In keeping with previous books of such ilk, this latest book is supposed to be ‘eye-opening’ for offering ‘ground-breaking’ new theories.

Graziano’s basic premise is that the brain *generates* consciousness which can be discovered through evolutionary theory and an analogy with machines. So by tracing evolution over millions of years we find examples from the natural world to show how neurons first allowed animals to develop simple forms of attention: taking in messages from the environment, prioritizing them, and responding as necessary. Focusing attention apparently helps an animal find food or flee a predator.

It may also have led to consciousness. But in order to monitor and control this specialized attention, the brain evolved a simplified model of it—a cartoonish self-description depicting an internal essence with a capacity for knowledge and experience—in other words, consciousness.^[2] (It may be impolite to enquire who the cartoonist happens to be.)

In the related *New Scientist* article, Graziano states, ‘In this account, consciousness isn’t so much an illusion as a self-caricature.’ He then suggests an engineering approach to the problem because ‘sometimes, the best way to understand a thing is to try to build it’. Accordingly, ‘to engineer human-like consciousness into a machine [...] would require just four ingredients: artificial attention, a model of that attention, the right range of content [...], and a sophisticated search engine to access the internal models and talk about them.’^[3] In essence, this requires uploading the data structure of consciousness into machines.

His book is indeed a celebration of the machine paradigm of mainstream science wedded to a basic version of Darwinism offering the prospect of the natural consciousness of a person uploaded into a machine for a digital afterlife.

When will the scientific tide turn towards the perennial wisdom so that a true SCIENCE may emerge from its sepulchre of scientism? We may have

to stretch our patience to the limit and follow Max Planck’s advice:

A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die and a new generation grows up that is familiar with it. . . . An important scientific innovation rarely makes its way by gradually winning over and converting its opponents: it rarely happens that Saul becomes Paul. What does happen is that its opponents gradually die out, and that the growing generation is familiarized with the ideas from the beginning: another instance of the fact that the future lies with the youth.^[4]

On present reckoning, we may be waiting for ages before mainstream science comes to regard consciousness as *Atma*, the Divine Self, the irreducible ground of our being, rather than an illusion or the latest ‘ground-breaking’ idea—a cartoonish self-description, or a self-caricature. The front cover of the same *New Scientist* speciously quotes Richard Dawkins saying ‘We Are All Irrational’, whereas what he actually said (page 39) was ‘I think we are all susceptible to a certain level of irrationality’, which must, then, by his own reckoning, include Dawkins himself. But if self-caricature engenders ‘a certain level of irrationality’, the irony will not be lost on you.

^[1] Michael Graziano, *Rethinking Consciousness – A Scientific Theory of Subjective Experience*, W. W. Norton & Company, 2019.

^[2] Adapted from Description by W. W. Norton & Company <<https://www.wwnorton.co.uk/books/9780393652611-rethinking-consciousness>>

^[3] Michael Graziano, ‘What is Consciousness?’, *New Scientist*, 21 September 2019, p. 36, 37.

^[4] Max Planck, *Scientific Autobiography and Other Papers* (New York: Philosophical library, 1950) 33, 97.



The Future of Global Systems Thinking – James Lovelock Centenary Conference

Andy Richards

How can we better predict global changes through understanding the interactions between the climate, natural ecosystems, human social and economic systems, and the built environment? This was the overarching question for a three day meeting for 287 attendees at the University of Exeter, UK. Hosted by the Global Systems Institute, the event also celebrated the 100th birthday of James Lovelock, originator of the Gaia theory, inventor of the electron

capture detector and of the microwave oven.

“The Future of Global Systems Thinking: Celebrating James Lovelock’s Centenary” brought together a truly transdisciplinary group of researchers, educators and impact generators, in the sciences, mathematics, engineering, social sciences, arts and humanities. The conference used James Lovelock’s pioneering approach as an inspiration to address the history

and current state of Earth system thinking and its application in approaches to solving the Earth’s climate crisis. This included the concept of Gaia 2.0 which explores how humans may collectively add self-awareness to the Earth’s natural self-regulation systems. Gaia 2.0 is central to the Global Systems Institute which is a new interdisciplinary research, teaching, and engagement endeavour at the University of Exeter.



A highly stimulating and creative programme of talks, panel discussions, and public events encouraged new perspectives and stimulated deep discussions. These progressed over the three days from the history of Earth system thinking and our current understanding of the 4.5bn year history of the Earth system itself, to the current state of global systems in the Anthropocene, through to the idea of tipping points for transformative change.

Along the way we touched on the search for life on other planets (Arwen Nicholson, University of Exeter), how historic narratives of humans triumphing over nature have shaped our approach to Anthropocene (Amanda Power, University of Oxford), and how poetry can help us to think about interconnected systems (John Clarke). But ever present in our discussion was the current climate and ecological crisis, and the need to have systems thinking embedded in our responses to it. Humans are now radically altering the Earth's systems as highlighted in several of the talks from melting ice sheets (Ricarda Winkelmann of the Potsdam Institute for Climate Impact Research in Germany) to use of plastics (Tamara Galloway, Global Systems Institute, Exeter). The final day explored tipping transformative change in a positive direction with talks on a variety of aspects ranging from socio-ecological and economic transformations to indigenous-based forest management.

The conference was the brainchild of Professor Tim Lenton, Director of the Global Systems Institute. His live interview on stage with James Lovelock was undoubtedly the highpoint and was experienced by over 400 people in the audience and many more online via the livestream. Well known for being independently minded, James Lovelock demonstrated he is just as sharp, forward-thinking and inspirational at 100.

In addition to the interview several public events were held to engage the public in dialogue in the transition to global sustainability and make this a celebratory event in addition to the academic discussions. These included an

Earth Themed Open Mic event, a collaboration between scientists and artists aimed at improving climate communication through song, music, poetry. There was also a lively panel discussion with world-leading speakers from politics, business, activism, and science entitled "Can I Do Anything About Climate Change?" held at the Exeter Phoenix theatre.

The meeting format accomplished its mission of taking James Lovelock's legacy as an inspiration to stimulate discussions how we can get a step closer towards a transition to global sustainability. This is most evidently shown by the following quotes from attendees:

"How wonderful your meeting was. This one was exceptional in rhythm, quality, fun, diversity, parity (a rare things to have so many wonderful women researchers!), and balance between disciplines."

"Bringing people together across such a range of disciplines and subject areas provides the magic opportunity of serendipitous discovery. I am sure there were many such moments for most of the people there as there were for me. I learnt a huge amount and had the joy not just of meeting some old friends but of making new ones."

The conference has also stimulated several outputs including a BBC Radio 4 programme produced by Gaia Vince, the award-winning British environmental journalist, broadcaster and non-fiction author. Michael Marshall also wrote an article in New Scientist titled 'James Lovelock at 100: Eclectic conference considers Gaia's future'. The musician Toby Marks (AKA Banco de Gaia) was also present throughout the conference and produced a new digital musical creation 'Ages of Gaia' which can viewed from the conference website along with podcasts, a recording of the interview with James Lovelock and all of the talks and panel discussions.



Andy Richards currently lead on supporting the development, implementation and delivery of the Global Systems Institute (GSI). This new £100m interdisciplinary institute will position Exeter as a world-leading university in solving global challenges and shaping the future world through transformative research, education and impact.

<https://www.lovelockcentenary.info/live-stream/>

The interview with Jim was on the Tuesday.

The individual recordings will go on the conference programme page



Report on the SMN Annual Gathering 5-7 July 2019

Michael Cohen

The theme of the Gathering this year was “Shaping the Future of Consciousness Studies”. The main proceedings started on Friday evening with a video of an interview with Larry Dossey: “One Mind, One Consciousness – where Spirituality Meets Science”. Dr Dossey explained that his interest lay in the role of consciousness and spirituality in health and healing. This was taboo during the time of his medical training, when all emphasis was on the body, as it still is in many places. Dr Dossey spoke of his belief that consciousness need not be attached to the brain, and that it persists after death, and that this view was in the process of becoming mainstream.

Saturday began with a report by David Lorimer giving an update on the Galileo Commission and reports on his attendance at some recent conferences on “Science and Non-Duality” and “Science of Consciousness.” This was followed by a talk by Professor Max Velmans on “The Ancient History and Future of Consciousness Studies.” Both talks emphasised how the materialist world-view associated with modern science is of quite recent date. David quoted Max Planck from 1931:

I regard consciousness as fundamental, matter is derivative from consciousness. We cannot get behind consciousness. Everything that we talk about, everything that

we regard as existing, postulates consciousness. There is no matter as such; it exists only by virtue of a force bringing the particle to vibration and holding it together

in a minute solar system; we must assume behind this force the existence of a conscious and intelligent mind. The mind is the matrix of all matter. (1931).



Photo courtesy of Natalie Tobert



In his fascinating talk, Max Velmans began by discussing the four late-nineteenth century pioneers of psychology: Ernst Weber, Gustav Fechner, Wilhelm Wundt and William James. For these men, psychology began with the study of consciousness. The banishment of consciousness from psychology happened later, in the mid-twentieth century, with B. F. Skinner and others.

I was particularly struck by the account of the life of Fechner (1801-1887). He was a professor of physics. It was only after a profound existential and psychological crisis that he became a philosopher and explorer of the nature of consciousness. Max Velmans went on to discuss the “return of consciousness” beginning with the emergence of cognitive psychology in the 1960’s.

Dr Joan Walton’s talk on “The Significance of Politics in Researching Consciousness” looked at the mid-twentieth century “banishment of consciousness” from a sociological and political point of view. She traced the growth of reductive materialism in the West from the 1930s onward to the rise of neo-liberalism and free market economics, associated with Milton Friedman and the Mont Pelerin society. The view that economics was a deterministic discipline like

physics prevailed, in which accurate prediction was possible. Courses on social science were removed from education. Joan explained how in recent decades the pendulum has swung back. In her own work as a lecturer in education Joan has been led to an active consideration of the phenomenon of consciousness, employing a multi-disciplinary approach in which both the subjective and objective aspects are considered.

The formal business on Saturday concluded with a talk by Professor Marilyn Monk on “A Hierarchy of Consciousness from Atom to Cosmos”. This for me was a stand-out talk: rigorously grounded in mainstream “hard” science and yet informed by and leading to what I can only describe as a mystical vision of reality. Prof Monk began by confessing that she was a molecular biologist, not a specialist in consciousness studies. Finding herself confused by different presentations of consciousness studies she had decided to investigate the phenomenon for herself. She started with the definition of consciousness in the Oxford Living Dictionary: “The state of being aware of and responsive to one’s surroundings.”

She began with the axiom that everything is interconnected and everything is in service to its own higher-order structure. She then started to investigate consciousness from the atomic level, then working up through the levels of molecules, cells, amoebae, animals, up to the whole cosmos. At each stage the parts are in service to the higher-order structure: atoms, to a molecule, bees to a hive, etc. The material processes by which this occurs are often well-understood by modern science. Prof Monk’s conclusion in her own words was: *This scheme of things establishes consciousness as the unity of everything, and the belonging to the unity of all things in service to their higher order structures. It suggests that matter is derivative from consciousness. It fits with my experience that I have consciousness at my particular level of the hierarchy and that consciousness has me though my*

interconnection to everything else. It celebrates belonging, and meaning, and purpose, for everything on planet earth and beyond.... And finally - this whole scheme looks like love itself. Service is love.

Although I have been a member of The Network for many years, I have not been active for some time, and this was my first Annual Gathering. Apart from the formal business, it was a delight to talk to many like-minded people from many backgrounds. It was a particular pleasure to meet several young people, some working in healthcare, who told me they found the Network to be a “safe space” in which they could discuss freely a non-reductionist approach to their work. It was a stimulating and fascinating weekend and I look forward to attending again.

Michael Cohen teaches Mathematics in London. He has a long-term interest in the connection between science and spirituality and is a trustee of the Beshara Trust, a charity which hosts talks and courses with a spiritual perspective.





Cascadia Conference Report

Diana Clift

For 30 years I enjoyed living close to London, able to attend most Network events, from evening lectures to residential meetings around the UK and continental Europe. When I emigrated to Canada two years ago I was sad to be losing that ready access to Network events. There was nothing for it but to bring the Network with me by starting a branch here in BC. I call it the Cascadia branch, Cascadia being the North West Pacific coast of North America, bordered by the Cascade mountain range.

I planned a residential meeting along the lines of the Frenchman's Cove, Jamaica, events. I've been part of the organising team for twenty years and we have a formula which combines academic content, experiential and experimental sessions, and recreation in a beautiful place which works well for small groups. So I invited fellow Jamaica team members David Lorimer and Patsy Carter to help make this happen. David kindly agreed to be our speaker and we chose as a topic an Introduction to Beyond the Brain. The location we selected was the Mayne Island Resort, on a small island, accessible by ferry from both Vancouver and Victoria.

We were a small group, just 11 in total, of whom four came from Europe and the others were from Vancouver, Victoria and Saturna Island ('next door' to Mayne Island). The journeys were easy, the weather benign and the location beautiful, right on a beach surrounded by forest.

With his customary erudition, David outlined the historical and philosophical background to the changing ideas on the nature of consciousness which led to the mechanistic brain-based view which remains the orthodox paradigm of most scientists.

We then considered the evidence that this view is incomplete. Throughout the four days of the meeting we convened each morning to take part in an experiment, an attempt to influence the germination of broccoli seeds by mental intention, either speeding it up or slowing it down relative to controls. This was a repeat of the experiment we had carried out in Jamaica with Jude Currivan in 2018. On that occasion the results had been clear and positive. We tried to quantify the germination progress, and for the first three mornings the results looked hopeful, but by day 4 it was too difficult to distinguish between the samples. Our experimental design could have been improved! But anyway, Leigh took all the seeds home to Saturna Island where they continue to grow in her greenhouse.

I gave a talk entitled 'Hypnotherapy: the weird stuff' about some strange hypnotic phenomena I have personally encountered, including apparently 'channelled' personalities, and subtle communication between people influencing physical health. But the most interesting part of the whole event was when we all shared our personal experiences of

psychic phenomena and especially Leigh Field and her husband Vagn Bonnevie-Nielsen's story.

Leigh spoke for Vagn who was seriously brain damaged by a cardiac arrest in 2006 (and a subsequent infection). During some 20 minutes when his heart and brain had ceased to function he had a vivid near death experience, which he can still recall clearly even though his memory is otherwise seriously impaired. Leigh and Vagn both spoke very movingly about this and Leigh has agreed to write up the experience for Paradigm Explorer.

Nearly everyone in the group had experienced psychic phenomena, synchronicities or surprising inspirations. For Susan Goodwin and Bill Wigram, Psi has been a part of their lives all along. Leigh proposed the concept of the psychome, being a unit of consciousness that is both inheritable and shareable

Another theme to arise at our meeting was a reinterpretation of the Christian story. Bill Wigram has had the visionary experience of an encounter with Jesus and the disciple Thomas which inspired him to write his book 'The Thirteenth Disciple'. David reappraised the role of Mary Magdalene in the light of the Gnostic gospels and the 'Gospel of the Beloved Companion'. This was of interest to those of us who grew up with Christianity and have been reacting against it ever since. Pauline Kenneally and



Roger Sandford, both former Catholics turned Unitarian/agnostic, found the different take on Christianity together with the evidence that consciousness is not generated by brain, challenging and exciting. Michael Riess on the other hand found all the formal talks a turn off, but responded to the personal experiences, the exploration of nature, and the social side of the meeting. Linda Eterman had attended our last Frenchman's Cove event (with Oliver Robinson speaking on Pathways between Head and Heart in January this year) and also Rupert Sheldrake's workshop on Science and Spiritual Practice on Cortes Island, BC, in August, so is very familiar with the format and, as a singer/guitarist provided important musical input at all of them!



As always with these types of event, the fun component was essential. We did a lot of singing, dancing, discussion, enjoying the natural beauty of the island, trying the BC wines and beers from local microbreweries and a self-generated entertainment with contributions of songs, poems, readings etc from all the participants. The venue worked very well for our small group. We had a conference room in the main building which was a bit noisy, but also the living room of a beach cottage where we could meet away from other guests. Each morning David led us in Paneurhythmy in the grounds overlooking the sea. Only David bathed in the cold Pacific Ocean, but we all enjoyed the swimming pool and the hot tub! One afternoon we took an outing to a beautiful Japanese garden, a memorial to the Japanese families who had farmed on the island until World War 2 when they were stripped of their land and interned, a shameful part of Canada's recent history. We also had a session of contemplation in nature which inspired some of us to poetry.



I am indebted to David for giving so generously of his time and wisdom, just weeks before his wedding! I am also very grateful to Patsy for her invaluable contribution to this and the Frenchman's Cove events. She takes on a lot of the admin tasks with patience and good humour, she co-hosts all the less formal sessions and puts up with a very noisy housemate!

It is customary at these events for me to compose a song based on all that happens at the meeting, a piece of musical ephemera which means nothing to anyone who wasn't present. Nevertheless, I think I shall end with the words of the chorus:

*Here we are on the Island of Mayne
We're contemplating consciousness Beyond the Brain
We're trying to follow philosophical threads
Though David's erudition's going over our heads!*

Diana Clift is a Vice-President of the Network.

*Arbutus Pending
Strong roots
stretch into
Overhanging earth.
A clenching fist
opens up
to fine limbs
reaching into the sky but
stripped of bark,
clinging precariously
to life,
boldly defying erosion,
staving off gravity and death.
Rooted in stillness
we too stretch into
space and time,
releasing a ripple of joy
onto the shimmering waters
of life.
David Lorimer September 28*



Evolving Consciousness

Reflections from the day conference of Saturday 30th November, 2019

Mark Vernon

“What is now proved was once only imagined,” wrote William Blake. London’s greatest modern mystic lent his inspiration to our gathering as around 150 people met in Colet House, London. Organised by the Scientific and Medical Network, generously supported by the Fetzer Institute, and originally conceived by Mark Vernon, we were there to ask how consciousness evolves. We focused, in particular, on the part played by the human imagination.

It was a day of heartfelt discussions and, after a shared lunch, joyful improvisation led by Pippa Evans. Our guide throughout was Owen Barfield, the so-called “last Inklings” and friend of CS Lewis and JRR Tolkien. They both confessed that Barfield had the best ideas.



Owen Barfield

“I think fundamentally if we could understand some of Owen Barfield’s ideas about the relationship between the inner and outer worlds and really, really understand them and really take them seriously, I think we can take a very important step towards addressing, perhaps not solving but certainly addressing, some of the problems that face us today.”

Gary Lachman



We were reminded too of the role that the writings of Rudolf Steiner played in Barfield’s life by one of the day’s speakers, Gary Lachman. Gary conducted what turned out to be Barfield’s last interview. He reminded us that Steiner had seen

that the world we live in today was imagined yesterday, and the world of tomorrow is being imagined today.

In short, imagination matters. It matters very much indeed. As Malcolm Guite, another contributor, explained: it is a truth-bearing faculty. Just why was understood by Barfield through his appreciation of the poet and philosopher, Samuel Taylor Coleridge. Coleridge had realised that the imagination is the “prime agent of all human perception”. It forms what we see. It can make mistakes, which Coleridge called fancies. But it can also facilitate nothing less than a sharing in divine sight and so reveal the world as bathed in spiritual light.

“We’ve probably been working with a series of inherited and essentially artificial barriers between approaches to life and approaches to academic life and I think they’re all coming down here.”

Malcolm Guite



“Imagine a life unfolding before you into the future that fosters flourishing, love and all the good things.”

Marilyn Monk



It happens when our individual capacities align themselves in the service of the whole. This pattern can be perceived in nature herself, argued Marilyn Monk, another discussant. Every element, from subatomic particles upwards, understands itself by the part it plays in the dance of the totality it shares.

Part of our service, suggested Simon Conway Morris, is to become conscious of the meaning of life. This is our joy and struggle, manifest no more clearly than in the extraordinary abilities provided by our use of language. As Barfield realised, if we seriously reflect on the way words work we can come to see that they are given to us by nature. Further, when we breath them out, charged by our imagination, we are sharing in nothing less than the creative activity of the Spirit. To know this is to embody a shift of

“Language is a completely different cognitive exercise which allows us an infinite exploration of who we are.”

Simon Conway Morris



consciousness that is the urgent task of our day.

We have become too good at manipulating the world, Barfield observed, without understanding its meaning. The scientific age is inclined to gauge everything via outer quantities and engage in what EF Schumacher called a “science for manipulation”. We must recover knowing everything via their inner qualities and so regain Schumacher’s “science for understanding”.

And yet, this disenchantment and alienation is part of our evolution. The struggle to regain sight of the living processes and spiritual beings appreciated by our ancestors is also the way to a new kind of freedom. As Jessica Kingsley suggested, when she reflected on the effects of spiritual practices: this freedom comes with experiencing our awareness reaching beyond what we thought were its limits, much as words liberate our minds when they point beyond themselves.

The truth is that our reason and imagination are enfolded in one another, explained Malcolm Guite. When they work together, they release the intuition that can grasp the whole. This is the level of participation with life that we are invited to share, added David Lorimer. It’s to realise that the centre in me that says, “I am”, is the centre in another who says, “I am”, which is also the centre of the divine I AM.

David cited Thomas Troward who amplified the dynamic: “The divine operation is always for expansion and fuller expression,” and this operates “in the same manner in me.” Or, as Coleridge put it: “The primary imagination I hold to be... a repetition in the finite mind of the eternal act of creation in the infinite I AM.”

In the afternoon, we divided into smaller discussion groups pursuing one of four themes: personal formation, religious and spiritual traditions, science and modernity, and mysticism and gnosis. The room came alive with thoughts as people pursued questions such as what individual transformation involves and how religious traditions can be freed to communicate their life once more. Others contemplated

how science and spirituality are akin because they both seek to test intuitions. There was also much discussion of the nature of gnosis and how to communicate powerfully felt mystical vision.

Such vision is not to obscure that we live in dire times, continued Richard Tarnas as the bright sunshine of the day yielded to winter’s early night. Indeed, this vision entirely understands the desperate state of things because it also appreciates that any true transformation of vision, as opposed to an extension of what’s already known, is gained only after a phase transition. There’s a death that leads to a rebirth; an initiation. It is to reconnect with our true selves, added Mark Vernon, which is not an isolated essence within us but nothing less than the wellspring of the fullness of life.

It seems that today the western world is undergoing a cultural dark night of the soul and it will produce real tragedy. But there is also a telos to this descent, an end to the spiritual emergency, which is a return and unfolding. It can be known as such, offering a way fully to embrace what’s going on. The imagination is crucial here as well because it can inspire the moral courage to speak about these things; the trust to undergo the near death experience.

It sounds extraordinary to say so, but we are asked to become co-workers and co-creators with the soul of the world. This is the meaning of the evolution of consciousness. It’s why our gathering ended with hope. We are invited to offer all we have in this service and will find that we are assisted.

We had assembled to consider what spiritual experience might mean in a secular age when understood as an evolution of consciousness. We left with a sense that it can mean everything.

Recordings of the day are available online at www.markvernon.com/evolving-consciousness.

*Dr Mark Vernon is a psychotherapist, writer and the author of *A Secret History of Christianity: Jesus, the Last Inking and the Evolution of Consciousness*. It’s an account of the Christian era using Barfield’s insights and an assessment of our spiritual task today.*

Network News

ATTENTION MEMBERS

PERSONAL NUMBERS AND OFFICE PROCEDURES

Please help your administration office to run smoothly and so help you efficiently:

- when your details change (address, telephone number, email address etc.) please make sure we know
- use your membership number whenever you contact us, and write it onto all correspondence, conference booking slips, subscription forms and orders for books, services etc.
- book early for conferences - it helps you get a place
- ensure cheques are made out correctly to Scientific & Medical Network; for conferences and orders: always add (legibly!) details of what it's for and membership number on back, even when accompanied by a booking form
- remember we're a network, and it often takes time for all relevant people to be contacted so when making requests give us time to respond helpfully (and always remember to tell us who you are - we sometimes get forms back with no name at all!)
- help us save money; whenever possible pay in £ sterling and remember to gift aid when you make a payment (subscription, conference fees, etc..) - it maximises funds available for more important things.

Office hours are 10.00am to 5.00pm Monday- Thursday. Please leave a message if no one is available to take your call. We will get back to you as soon as we can.

NEW HONORARY MEMBERS

Ken Wilber, Dr Anne Baring and Dr Michel Odent were all elected Honorary Members at the Board Meeting in November. Ken spoke by Zoom at Beyond the Brain, which we will report in the next issue.



KEN WILBER, b 1949

Often referred to as the “Einstein of consciousness studies”, Ken Wilber is a pre-eminent scholar of the Integral stage of human development. He is an internationally acknowledged leader, founder of the Integral Institute, and co-founder of Integral Life. Ken Wilber is one of the most important philosophers in the world today. He is the most widely translated academic writer in America, with 25 books translated into some 30 foreign languages. Ken is the originator of the world's first truly comprehensive or integrative philosophy, aptly named “Integral Theory.”

Ken Wilber is also the founder of the Integral Institute, which is the first organization fully dedicated to advancement and application of the Integral Approach in relation to contemporary global issues. It was formed in collaboration with over 200 scholars and experts, specializing in education, politics, business, medicine, psychology, spirituality, as well as, law and criminal justice.

Wilber explains the need for an Integral Approach in the following way: in our current post-modern world, we possess an abundance of methodologies and practices belonging to a multitude of fields and knowledge traditions. What is utterly lacking however, is a coherent organization, and coordination of all these various practices, as well as their respective data-sets. What is needed is an approach that moves beyond this indiscriminate eclectic-pluralism, to an “Integral Methodological Pluralism” — driving toward a genuine “theory of everything” that helps to enrich and deepen every field through an understanding of exactly how and where each one fits in relation to all the others.



DR ANNE BARING, MA OXON, PHD (HONS, UBIQUITY UNIVERSITY) b 1931

Anne Baring is a Jungian analyst and author and co-author of 7 books including, with Jules Cashford (1992), *The Myth of the Goddess; Evolution of an Image*; with Andrew Harvey, *The Mystic Vision* (1995) and *The Divine Feminine* (1996); and with Dr. Scilla Elworthy, *Soul Power: an Agenda for a Conscious Humanity* (2009). Her most recent book, published in May 2013, is *The Dream of the Cosmos: A Quest for the Soul* which was awarded the Scientific and Medical Network book prize for 2013. Her book for children, *The Birds Who Flew Beyond Time*, first published in 1993, was based on Sufi text *The Conference of the Birds* and was illustrated by the late Thetis Blacker. The ground of all her work is a deep interest in history as well as the spiritual, mythological, shamanic and artistic traditions of different cultures. Her work is devoted to the affirmation of a new vision of reality and the issues facing us at this crucial time of choice. She lives in the UK near Winchester with her husband, artist Robin Baring. www.annebaring.com



MICHEL ODENT, MD, b 1930

Michel Odent, MD, was in charge of the surgical and maternity units at the Pithiviers (France) state hospital (1962-1985). For many years he was the only doctor in charge of about 1,000 births a year. He is the founder of the Primal Health Research Centre (London). He is the author of the first article in the medical literature about the initiation of lactation during the hour following birth (1977), of the first article about the use of birthing pools (Lancet 1983), and of the first article applying the 'Gate Control Theory of Pain' to obstetrics (1975). He created the Primal Health Research database (www.primalhealthresearch.com). He has been a member of the Professional Advisory Board of La Leche League International for about 40 years. His latest book of many is entitled *The Future of Homo* (World Scientific 2019)

Michel Odent is Visiting Professor at the Odessa National Medical University and Doctor Honoris Causa of the University of Brasilia.

NEW MEMBERS OF THE BOARD – Molly Martinez Hackney and Jose Montemayor Alba



Molly is co-editor of *The Medium's Medium*, a publication of Spiritualist Art from the 19th and 20th centuries, once ignored by the cultural mainstream. The book served as the supporting literature in sales of channeled artwork from the other realm at Frieze Masters, London. She graduated from the University of Bristol in 2019 with a First-Class Honours History of Art degree, culminating in her dissertation *The Alternative Guide to the Universe*. This was the first academic paper on Outsider Art and scientific endeavour (a raw form of creativity, produced from impulse

without the intent to sell, for an audience of self). Focusing on the art of unorthodox visions of time and space, the dissertation stretched the parameters of the art historical canon to include the aesthetics of Mayan numerology, Pythagorean mathematics, Goethe colour theory and I Ching principles.

She has worked in the advertising industry, re-positioning Eclectic Music Productions and in Berlin for Ciclope Awards, the Oscars of advertising content. Raised by an integrative psychotherapist mother and an advertising producer father, her interest lies in the strange hinterland between the belief that consciousness exists beyond the brain, and how to market such a thing. Now on the board of the Scientific & Medical Network, Molly intends to attract her generation of members on this noble plight of a paradigm shift to a post-materialist world view.



Jose a multidisciplinary artist, XR developer and psychonaut whose works are transcending traditional media. Jose's multidisciplinary work explores areas ranging from photography, film, 3D animation, virtual cinematography, art installations, projection mapping, live visuals for music (VJ), public speaking and developing transformative technology with virtual and mixed reality technologies.

He currently dedicates much of his time and heart to exploring the synergy between art and science, and the symbiosis between technology and spirituality; Jose's ambition to nurture a healthy relationship between humans and technology has led him to design various integral modalities, frameworks, and methodologies of delivering integral transformative education using digital and analog methods.

Jose just recently joined the board of the Scientific & Medical Network, with the intention to create a trans-generational bridge and cross-pollinate wisdom across generations.

Network Book Prize 2019

The Network Book Prize is awarded annually to the most significant book or books written by Members during the year. Exceptionally, in 2019, there are five awards to books that have demanded years if not decades of dedicated work. Two were reviewed in the last issue:

The Way of the Psychonaut by Stan Grof, MD, PhD and *The Shape of the Soul*, by Paul Marshall. The other three are reviewed in this issue: *Gaia, Psyche and Deep Ecology*, by Andrew Fellows, PhD, who will be speaking at the Annual Gathering, *LSD and the Cosmic Mind*, by Prof Chris Bache and *Merchants of Light* by Prof Betty Kovacs.

Network Book List 1975

A recent trawl through the Network archive revealed the following interesting list of recommended books, typed up on George Blaker's faithful manual typewriter. As readers will see, it covers a very wide field and includes some classic books - everyone will have their own suggested pre-1975 additions, and among mine would be CD Broad – *Lectures on Psychical Research*, just as one example. Among those who were - or are in the case of Lawrence LeShan at the age of 99 - were Robert Crookall, Raynor Johnson, Shafica Karagulla, Arthur Koestler, E. Lester Smith, David Tansley and Lyall Watson. Available from the editor.



LOCAL GROUP NEWS

LONDON GROUP

CLAUDIA NIELSEN
0207 431 1177,
claudia@pnielsen.uk

To read reports from other meetings, go to the **REPORTS** page of the London Group page of the Network's website. If you don't live in London but wish to be advised of London events, please drop me an email and I shall add your e-address to the circulation list.

■ **SEPTEMBER**



At this time of the year, Prof RAVI RAVINDRA visits the UK and often comes to speak to our group. So we were delighted to host his talk on **Inner Transformation through the Yoga of the Bhagavad Gita**. Ravi is Prof Emeritus at the Dalhousie University in Halifax, Nova Scotia in Canada, where he served for many years as

professor in three Departments: Comparative Religion, Philosophy and Physics. He is the author of a number of books on science, religion and spiritual disciplines. The backdrop of his talk on the message of the Gita is that, as all sages in all spiritual traditions throughout human history have affirmed, one cannot come to the Truth or Light, or God unless a radical transformation of the whole being of the searcher is undertaken. That is the yoga taught in the Bhagavad Gita.

The Gita is part of the Hindu epic The Mahabharata and tells the story of a war between the Pandavas and the Kauravas in which the prince Arjuna is faced with having to engage in violent battle with members of his own family, friends and teachers. Within the wider narrative of the Gita, Ravi focused on the dialogue between Arjuna and his charioteer Krishna. Krishna is the incarnation of the Highest Divinity. Whereas a lot has been written about the symbolism of the narrative as the war and Arjuna's role in the war as an external scenario, Ravi told us that the fundamental message of this sacred text, is that the battle is to be understood as an internal dynamic. An internal battle between 'us 1' and 'us 2'. This is the interpretation of Indian sages. The battle is driven by the preoccupation with wealth and power amongst others, which runs society, and our struggles with those. Arjuna is facing a crisis of karma. Karma here is understood as duty, responsibility, order, law and so on.

Ravi pointed out that some key words in Sanskrit need to be understood within the context in which they are used. In this context, karma points to these words, in the context of right and wrong. This kind of crisis is common in life, whenever there is a choice to be made. Arjuna does not want to fight, he wants to give up his weapons. Krishna, the incarnation of the Higher Self or Divinity,

is there to show him that if his choice is to develop spiritually, he must engage. Spiritual development is a move towards 'home' towards a 'higher' or 'deeper' level of consciousness. Higher for the Abrahamic traditions and deeper for the Indian. For this to happen, 'sacrifice' needs to take place. The motivations of physical pleasure and comfort need to be kept in check in service of the process. Desire and fear need to be confronted.

Throughout the talk Ravi kept bringing in examples from Abrahamic teachings to show this perspective to be a universal spiritual message. The message of the Bhagavad Gita is that to evolve spiritually one must engage in Buddhi Yoga, the most comprehensive yoga of all. This is the yoga of awareness leading to the right kind of knowledge. It allows divine action to manifest and teaches non-attachment to outcome. No action can be right until the actor is right, said Ravi. This is the message of transformation in the Bhagavad Gita.

■ **OCTOBER**



This month we hosted a talk by Prof RICHARD SILBERSTEIN who was on a visit to London. Richard is Prof Emeritus at Swinburne University of Technology in Australia, where he served as head of Dept of Physics and subsequently director of Brain Sciences Institute. He is the founder and chairman of

Neuro-Insight Pty, a consumer neuroscience company with offices in Melbourne, London and New York. Richard has over 40 years of neuroscience research experience and is the originator of the Steady State topography (SST) brain imaging methodology. The talk this evening was *Bioelectric fields, Where Biology and Reincarnation Intersect*.

Richard's talk was based on the research on past lives memories in children, conducted by Ian Stevenson (1918-2007) coupled with the work of Michael Levin who researches bioelectric fields and their influence on the body. Since the evidence of reincarnation relies heavily on memory, specifically on what people might remember of their previous lives, Richard quoted examples from the literature of research with children who, when very young, remember having lived before, including in their narratives details which are subsequently confirmed by records.

Addressing the biology part of the talk, Richard spent some time explaining how cells create the bioelectric fields with measurable voltage. This is in itself a fascinating subject as these fields play a remarkable role in certain physical diseases, including cancer. Richard told us about experiments conducted by Levin with planaria, a fascinating water flatworm which reproduce asexually by separating its tail which will generate another head, and the head another tail. We spent some time learning about these experiments and within the context of the lecture, heard about experiments showing that planarian with regenerated heads have memories of learnings the tail part had achieved with the previous head. This indicates that those memories were stored outside of the physical brain.

So alongside bottom-up process of genetic and epi-genetic constituents that affect generations of animals, the planarian experiments may indicate a top-down process involving bioelectric fields and memory.

With regard to birth marks found in people who recall past lives it is suggested that bioelectric fields constitute a plausible mechanism whereby consciousness influences the developing human foetus producing birthmarks coinciding with the site of past life lethal injury. It is further suggested that bioelectric fields can constitute a plausible mechanism whereby consciousness influences the developing human foetal brain producing the conditions necessary for the conscious recollection of first-person past life memories. If past-lives memories can indeed be recalled, they must be associated with specific synaptic processes in the brain, most likely taking place in the temporal lobes and the hippocampus. These may be mediated by modifications in bioelectric fields controlling development, probably around birth and shortly after. Richard mentioned research in mice which shows that in infancy the hippocampus undergoes fast neurogenesis, with new synaptic connections replacing older ones indicating loss of memories previously established.

In humans, this could explain why past lives are forgotten at an early age of 5 or 6 in humans, at a time when fast neurogenesis occurs. Research shows however that memories may be forgotten but not gone and may manifest in later life behaviour. These preserved memories may be unconscious and remain in what Richard called 'implicit memory' which may cause its emotional and procedural content to manifest in automatic responses to circumstances and relationships, as well as other behaviours later in life. An example may be the manifestation of skills in children at unusually young age, such as the case of 'Hunter' a young golf prodigy in the US who was born after 2000 and recalled a past life as Bobby Jones, a golfing superstar of the 1920s.

■ NOVEMBER



DIANA DURHAM was the speaker this month and her presentation, *Coherent Self, Coherent World: Synthesising Myth, Metaphysics & Bohm's Implicate Order*, is the title of her latest book. Diana is a poet and author of three collections of poetry, a novel, *The Curve of the Land* (1915) and her first non-fiction book, *The Return of King Arthur: Completing the Quest for Wholeness* (2004). The essence of her argument this evening was that when we live a coherent life, when our 'personality self' is in a meaningful relationship with a deeper quality of awareness and identity, the world we experience is also coherent. The opposite being true as well: when the relationship between our 'personality self' is not in meaningful relationship with our identity, disconnected from our inner intuitive source, then the world in which we live is experienced as chaotic, confusing and difficult. Using the lens of myth, Diana mentioned the story of the Wounded Fisher King who rules over

Wasteland. The wasteland is a result of the wound of the king, who deals with his pain or distress by going fishing, in other words, finding ways of negating, denying, or distracting himself. This resonates with ways people find not to attend to their wounds, through distractions and addictions. The kingdom is a reflection of the ruler and in order for the land to flourish, healing needs to occur in the king rather than to the land. Coherence needs to be restored internally. Coherence in this context is the quality of forming a unified whole, in which a meaningful relationship exists between the parts.

What Diana called the 'inner self' and the 'personality self' need to be in a meaningful relationship, and the relationship with world will be coherent as a result. In this state of being, we experience harmony and balance, and feel happy and fulfilled; we feel connected with our intuitive self, are open-minded, tolerant and can think clearly. We feel centred. Lama Govinda talked about this in terms of the overlap between the 'universal spiritual' and the 'empirical individual'. Said with different words, the 'intuitive mind' looks both ways, to the inner and the outer. David Bohm refers to this process through the idea of consciousness experiencing itself in the unfolding of the universe by way of its implicate and explicate order. The implicate order unfolds into the explicate which then enfolds into the implicate again, a holomovement. This dance of enfolding and unfolding exists on a personal as well as the universal level. The intuitive flash for example, is the result of the interrelationship between two aspects of awareness: the 'empirical individual' and the 'universal spiritual', the implicate and the explicate order. Bohm saw creativity as resulting from this dance which enables new meanings to emerge. We participate in the universe by way of our creativity. So coherence between the inner and outer facilitate harmony in living as well as creativity.



When Death Comes

*When it's over, I want to say: all my life
I was a bride married to amazement.
I was the bridegroom, taking the world into my arms.
When it's over, I don't want to wonder
if I have made of my life something particular, and real.
I don't want to find myself sighing and frightened,
or full of argument.
I don't want to end up simply having visited this world.*

Mary Oliver



BATH

Fashion, Faith and Fantasy in Modern Physics – a presentation by Professor Sir Roger Penrose OM, FRS* at the Bath Royal Literary and Scientific Institution; 26th November 2018

Professor Sir Roger Penrose is one of our foremost theoretical physicists who has more than lived up to his position of the ‘Rouse Ball Chair at Oxford University’, with his inclusion of historical and philosophical aspects of a subject within his lectures.

It was against this background that he addressed a capacity audience in the prestigious Bath Royal Scientific and Literary Institute on “Fashion, Faith and Fantasy in Modern Physics”. He painted a multi-faceted picture reflecting his own life path as a man questing not only within the normal confines of physics and mathematics from the ultimately small to the cosmically large, but also exploring issues that reach into the very nature of consciousness itself.

Such questing, often against the status quo of mainstream science, is at the heart of the Scientific & Medical Network and is clearly a hallmark of Sir Roger’s personal mission. It is no exaggeration to say that his presentation showed something of the conceptual reach that is possible if one moves outside of peer group silos and their limited perception of reality. I was reminded of that famous etching of the alchemist breaking through the celestial sphere to see what might be “driving” reality.

The purpose of this event was to raise interest in such profound questions that could be addressed in a convivial S&M Network Group in gestation at Bath. This initiative is being taken by *Cindy Beadman*, who managed to garner interest from about forty participants.

* Honorary Member



NEWS

Journal of Scientific Exploration Winter 2019

Members may know that Prof Etzel Cardena published a landmark article on the experimental evidence for parapsychology in *The American Psychologist*. The editors chose to print a so-called rebuttal by sceptics Arthur Reber and James Alcock entitled *Searching for the Impossible: Parapsychology’s Elusive Quest*. The fact that this article was not thrown out by peer review is significant since their argument is based entirely on a questionable philosophical presupposition, as they themselves state: “Our position is straightforward. Claims made by parapsychologists cannot be true. The effects reported can have no ontological status; the data have no existential value.”

The editor then refused to publish Etzel’s riposte on the basis (ironically) that the said paper was not a rebuttal! So readers might get the impression that the matter has been (safely) put to rest. However, the new open access JSE contains Etzel’s response and other commentaries by Bryan Williams, Andrew Westcombe, George Williams and Bernard Carr. I have the pdf if readers cannot access this

online. In his abstract, Etzel writes: “After presenting some background information, this Commentary discusses how: 1) Reber and Alcock’s disregard for the data goes against a core tenet of science, 2) eminent physicists have not considered psi phenomena to be incompatible with their discipline and some have even proposed theories to explain it, so no definitive conclusion can be advanced with regard to the possibility or impossibility of psi phenomena based on physics, and 3) Reber and Alcock misrepresent the history and current status of psi research.” I also have pdfs of these articles and a commentary from SPR President Prof. Chris Roe.

Deep Cosmos: an inquiry into a panpsychic worldview

With Peter Reason, Andreas Weber, Freya Mathews and Stephan Harding

February 29 – March 3, Schumacher College

A panpsychic view starts from the understanding that all things, including the Earth itself, are integral to the fabric of the *living cosmos*, all of the same sentient cloth. Mind is a fundamental aspect of matter just as matter is a fundamental aspect of mind:

we are part of a world that has depth as well as structure, meaning as well as form. In Thomas Berry’s words, this is a community of subjects, not a collection of objects. But how do we humans learn again to be participants in this community, not just know it intellectually, but feel it on our pulses, as the poet Keats put it? If we call to the living presence of the world, will we receive a response? This workshop will explore these questions through a co-operative inquiry process.

More information from Peter at peterreason@me.com or <https://www.schumachercollege.org.uk/courses/short-courses>

Dr William Bloom – Meditation Masterclass

The Spiritual Companions Trust believes that humanity is an evolutionary species with the potential to develop a global culture of love, wisdom and care for all. As Director, William has written this beautifully designed and illustrated handbook for teachers and practitioners covering essential knowledge and skills in the field. It outlines the core state, FAQs, gateways, practices, managing challenges and gives a final checklist. Highly recommended and available from www.spiritualcompanions.org

MEMBERS' ARTICLES AND ARTICLES OF INTEREST

Available through links or from dl@scimednet.org

SCIENCE/PHILOSOPHY OF SCIENCE

Sandra Diaz et al

- *Pervasive human-driven decline of life on Earth points to the need for transformative change (a remarkable review and essential reading - 44 pp. from Science, December 13, 2019)*

Philip Ball

- *Science must move with the times (6 pp., excellent commentary from Nature)*

Nathaniel Comfort

- *How science has shifted our sense of identity (4 pp., another excellent commentary from Nature)*

Jude Currivan PhD

- *How to 'make' a Universe - A New INSCiGht of INformational SCIENCE (3 pp.)*

- *Response to; 'Call for Evidence' Planning Reform*

*Evidence to: Halt the Roll Out of 5g**Call for: Risk Assessment and Safe Technology 1g, 2g, 3g, 4g, 5G (41 pp.)*

Jaume Agustí-Cullell

- *Liberating Intelligence People's power to break away from the current Societies of Domination, towards the new Creative Democracies (20 pp.)*

CONSCIOUSNESS STUDIES

A K Mukhopadhyay and
A S Mukhopadhyay

- *Visualizing Information as a Dynamic Entity Roadmap of Deep Science, AI and Humanity (12 pp., from Psychology and Behavioral Science)*

- *Emergence of Homo Spiritualis: of Essential Requirements - Faith, Devotion and Love: Deep Science of their Psychoneurobiology (7 pp.)*

Steve Taylor

- *Scientism: The Religion that Has Emerged from Science (4 pp.)*

Andrew Lohrey

- *The Paradigm of Nonlocal Realism (7 pp.)*

John Burnett

- *The Nature of Reality (11 pp.)*

Julie Beischel, PhD

- *Spontaneous, Facilitated, Assisted, and Requested After-Death Communication Experiences and their Impact on Grief (12 pp., www.tjics.org)*

John Kapp

- *Book review of Spiritual Science, by Steve Taylor (2 pp.)*

PHILOSOPHY/
SPIRITUALITY

Archbishop Charles Jason Gordon

- *Building a Civilisation of Love - Religion, Spirituality and Authentic Practice (9 pp.)*

GENERAL

Royal Society of Arts

- *Democratising Decisions about Technology - A Toolkit (56 pp, Report)*

Tanja Balazic Pecek, Marija Ovsenik

- *Organization, Autopoiesis and Human Potential as Paradigm of the Future Organization (12 pp.)*

Alan Rayner

- *What is Natural Inclusionality? (4 pp.)*

- *What Does the Experience of Breathing Reveal to Us About the Fundamental Nature of Life, Environment and People? (3 pp.)*

David Bohm

- *On Dialogue (19 pp.)*

Dr Anne Baring

- *The Gift of Mary Magdalene (9 pp.)*

ONLINE ARTICLES BY ANTHONY JUDGE

- *Annexing the World as the Deal of the Century Imaginative global transformation through full-spectrum dominance by MeToo*
<https://www.laetusinpraesens.org/musings/deal.php>

- *Framing Cognitive Space for Higher Order Coherence Toroidal interweaving from I Ching to supercomputers and back?*
<https://www.laetusinpraesens.org/docs10s/toroidx.php>

- *Envisaging a Comprehensible Global Brain - as a Playful Organ Patterns connecting the dots between hemispheres, epicycles and quavers*
<https://www.laetusinpraesens.org/docs10s/brainenv.php>

- *Hearing the Variety of Voices in Climate Change Discourse Recognising the challenge of soundscape comprehension in controversy and emergency*
<https://www.laetusinpraesens.org/docs10s/voices.php>

book reviews

Books in this section can be purchased via the Network web site (www.scimednet.org) from Amazon.co.uk and the Network will receive a 10% commission. In addition, the Network receives a 5% commission on all sales if you log on through our web site!

SCIENCE-PHILOSOPHY OF SCIENCE

THE ALPBACH SYMPOSIUM

David Lorimer

■ BEYOND REDUCTIONISM

Edited by Arthur Koestler (late SMN) and J. R. Smythies

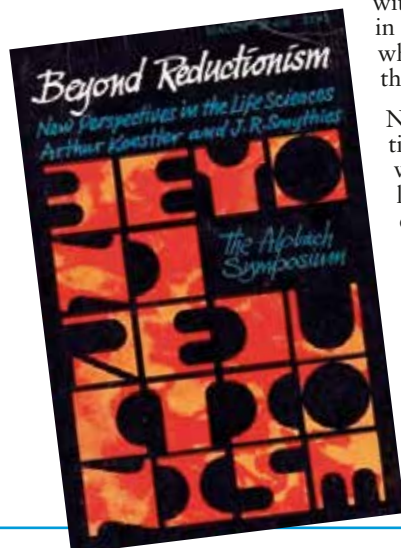
Hutchinson, 1969, 438 pp., out of print.

In his preface to this remarkable volume, Arthur Koestler notes that his main interest over the previous 10 years had been the history and present state of science, and its impact on our view of the world. He had become aware of a certain discontent with the prevailing philosophical bias lingering on as a heritage from the 19th century, 'although the new insights gained by contemporary research have reduced it to an anachronism.' Our recent Galileo report is very much in tune with this 'insufficient emancipation of the life sciences from the mechanistic concepts of 19th-century physics, and the resulting crudely reductionist philosophy.' 50 years on, this mechanistic philosophy is still hugely influential, especially in biology, in spite of conceptual and empirical advances. Invitees to the symposium were personalities in academic life with undisputed authority in their respective fields, who nevertheless shared that 'holy discontent'.

Not surprisingly for the time, all these people were men, but the list is extraordinary distinguished, including Paul Weiss, Ludwig von Bertalanffy, Jean Piaget, Jerome Bruner, Paul Maclean, Friedrich Hayek, CH Waddington, WH Thorpe and Victor Frankl. Notable absentees include Sir John Eccles

and Sir Karl Popper. The level of presentation is extremely high, and the interdisciplinary discussion quite remarkable among this group of Renaissance men. Although there have been significant advances since that time, for instance in complexity and chaos theory along with the formulation of Gaia theory, the elements underpinning this thinking are already present. We learn that Weiss had already formulated the concept of a biological system as early as 1924. His initial paper is of extraordinary scope, penetration and brilliance and should be compulsory reading for contemporary biologists, especially those of a mechanistic bent, as he explains the inherent limitations of this approach with remarkable clarity, beginning with the proposition that the universe is in fact an immense cohesive continuum that cannot be adequately understood as a dynamic whole by abstracting isolated elements and trying to put them back together again. Reductionism and holism are complementary within an ordered living hierarchy of open systems.

Weiss criticises what he calls micro-determinism, proposing a complementary macro determinacy and explaining this in a series of 12 coherent propositions (pp. 32-33). He criticises the notion that the gene is the sole ordering principle as based on sheer assertion and 'blind faith in unqualified reductionist preconceptions.' This demonstrates what Hayek later calls the primacy of the abstract, of categories imposed on nature and taken to be real in themselves. Systems themes are taken up in the second presentation from Bertalanffy - these men had already been working for decades in their respective fields. He begins with a discussion of general systems, observing that we are witnessing a change in basic categories of knowledge and that the mechanistic approach leaves out 'just what is specific to living things in life processes', hence the need for an expansion of scientific categories, concepts and models categories such as chreode and homeorhesis introduced by Waddington later in



the volume. As he points out, 'the former physicalistic, mechanistic and reductionist approach obscured essential aspects of reality.' (p. 63) Selection is enthroned as ultimate reality. Bertalanffy then lists a number of areas requiring further empirical research and conceptual re-evaluation, including the notion of adaptation and the role of randomness.

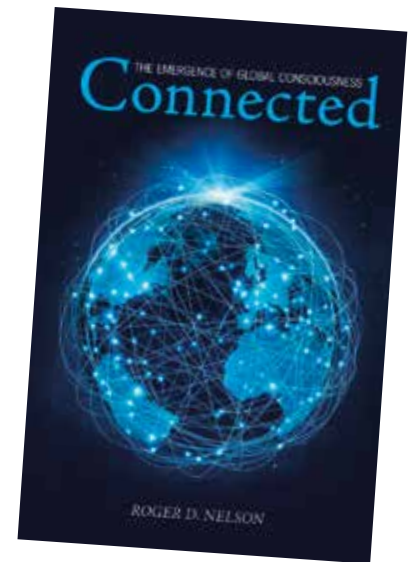
Koestler himself provides an elegant introduction to his seminal idea of the holon as both a part and a whole within a hierarchical living system - an idea further developed in the work of Ken Wilber. An important overall quality is the contrast between self-assertion and integration, which can also apply to social systems and broadly resembles Riane Eisler's fundamental categories of domination and partnership discussed elsewhere in this issue. There is a very useful appendix on general properties of self-regulating open hierarchical order. J. R. Smythies follows with an essay on aspects of consciousness, focusing mainly on the then prevalent theories and, interestingly, discussing models proposed by C.D. Broad and H.H. Price, distinguished philosophers both involved in psychical research, although this is not in fact mentioned.

Paul Maclean is famous for his theory of the triune brain, and here he discusses the paranoid streak in man in the light of his model. His most fascinating reflections come on the last page when he is discussing conditions existing in Europe before World War II and events that can transpire when there are widespread, uneasy feelings among whole nations - a condition analysed by Jung at the time. As we know, it is at times like this that a paranoid or xenophobic streak can emerge, then as now. Just as puzzling, he remarks, 'is how a civilised people can be duped into the selection of a deranged leader'. He speculates about the influence of the reptilian brain in selecting such a leader in conjunction with a poorly discriminating limbic brain mistaking 'the caricature of the leader for a genuine leader.' Then comes the revealing sentence: 'particularly deceptive it seems, are the bold, aggressive qualities of the psychopath that make it possible for him to put on a big show and talk louder and longer than anyone else.' (p. 275) Need I say more?

After an informative discussion of the theory of evolution by C.H. Waddington, the effective founder of epigenetics, comes the final contribution on reductionism and nihilism from Victor Frankl, famous for his *Man's Search for*

Meaning, a classic book based on his experience in Auschwitz, and which has sold 9 million copies in multiple languages. His message has lost none of its force in criticism of various 'isms'. When science becomes scientism, biology becomes biologism and psychology becomes psychologism, these disciplines are unwittingly transformed into ideologies and used to generalise a narrow explanation on the basis of the corresponding speciality. He observes that reductionism is in fact a mask for nihilism expressed as 'nothing-butness', corresponding to the reduction of quality to quantity and humans to the subhuman or to things, as C.S. Lewis observed in his *Abolition of Man*. Frankl regards the existential vacuum as a major challenge to psychiatry and mental health more generally, characterising this as a noogenic neurosis, which he put, even then, at 20% of the total. Interestingly, in his discussion of the will to meaning, he goes beyond self-fulfilment and self-actualisation to self-transcendence, which is also the case with Maslow. The unity of the human being, he asserts, cannot be found in the lower dimensions. In the discussion, he notes that there are three ways in which we can find meaning - in terms of action, experiencing the good and the beautiful and the true, but also, as his own experience taught him, 'by shouldering his unavoidable, unchangeable fate in a heroic way, thereby transmitting and turning tragedy into triumph' and in the process lending meaning to suffering.

The richness of content and the exchange in discussion make this a classic volume and its central themes are as relevant today as they were 50 years ago. Perhaps it is time to revive an annual Alpbach Symposium as the scientific equivalent of the equally seminal discussions that took place at Eranos in Switzerland. Only yesterday, I was reading a contribution by Schrödinger on the spirit of science to the Eranos volume on *Man and Nature*. What Koestler in his final remarks calls the four pillars of unwisdom are still alive in terms of emphasis on evolution as nothing but random mutations preserved by natural selection with a corresponding proposition for mental evolution, that we are nothing but passive automata controlled by the environment and reducing our tensions by adaptive responses; and that the only scientific method worth that name is quantitative measurement. So there is still much conceptual work to do in expanding and refining our scientific and philosophical categories.



INTENTIONS MATTER - WE ARE CONNECTED

Vasileios Basios

■ CONNECTED: THE EMERGENCE OF GLOBAL CONSCIOUSNESS

Roger D. Nelson, Ph.D.

ICRL Press, 2019, 332 pp.,
\$xx, p/b - ISBN 978-1-936033-
35-5; available at [http://icrl.org/
icrl-press-2/connected/](http://icrl.org/icrl-press-2/connected/)

*"Someday after mastering winds,
waves, tides and gravity, we shall
harness the energies of love, and then
for the second time in the history of
the world, man will discover fire."*

- Teilhard de Chardin

The poetic pen of the great mystic and scientist Teilhard de Chardin motivates us, with the above dictum, to consider the transformative, creative power of love and connectedness. Roger Nelson in his book "Connected" narrates the story of the discovery of the first glimpse of this creative force as uncovered and recorded in the project that he has been leading for the last twenty years or so.

It seems that the 'Noosphere' of Pierre Teilhard de Chardin and Vladimir Vernadsky has for the first time in history sent its weak yet traceable signals through Roger Nelson's "Global Consciousness Project" (GSP). The book tells this fascinating story and provides the fullest possible account to the reader in a vivid and captivating exposition supported by rigorous and unparalleled experimental evidence.

Two decades of careful research on the presence of coherence in the fluctuations of - the only - network

of random number generators spread all over the globe was the instrument for this path-breaking discovery. Roger Nelson, in this 'tour de force', describes with meticulous epistemological and methodological detail what it took them, him and his global partners and co-workers, to demonstrate the creation of order within genuine randomness due to coherent consciousness states in the world. Here is the opening the "Global Consciousness Project" web-page, the twenty-year-long running project that the book introduces us to and communicate its inner story:

"Subtle interactions link us with each other and the Earth. When human consciousness becomes coherent, the behaviour of random systems may change. Random number generators (RNGs) based on quantum tunnelling produce completely unpredictable sequences of zeroes and ones. But when a great event synchronizes the feelings of millions of people, our network of RNGs becomes subtly structured. We calculate one in a trillion odds that the effect is due to chance. The evidence suggests an emerging noosphere or the unifying field of consciousness described by sages in all cultures." (<http://noosphere.princeton.edu/>)

The background where Roger Nelson comes from is the pioneering work of the Princeton Engineering Anomalies Research Laboratory (PEAR-Lab, succeeded by ICRL, see "icrl.org"), where the use of random number generators based on Josephson junction diodes via quantum tunnelling was initiated and perfected. The results that intention influences deviation from randomness were established by the seminal work of the lab led by Robert G. Jahn and Brenda Dunne. Building on this line of work Roger Nelson envisioned and founded, in 1998, an international team of researchers supervising a globally distributed network of Random Number Generators (RNGs) that has spanned the earth ever since. The equipment and the software that collects the data are of excellent quality, robust, dependable and not at all prone to temperature, electromagnetic or any other known possible physical disturbance. Many technical tests have to be passed before these RNGs qualify to become sensors and detectors of deviations from randomness. The project's 'nickname', EGG, means 'Electro-Gaia-Gram', is a play on words reflecting analogies and metaphorically pointing to EEG, the 'Electro-Encephalo-Gram', the recordings for brain waves. So, each RNG of the EGG records "noosphere's" waves!

The thesis that intention and emotion might induce correlations in physical systems and thus departure from total randomness in the signal as would have been expected by the standard physics models for RNGs was put to a test over this EGG/RNG network. Data from great events of historical dimension (like the 9/11 and other terrorist attacks), mass celebrations (like New Year's Eve, Global Peace Meditation etc.), big spiritual gatherings, and even mundane big international sports events and Saint Valentine's in total around 500 formally specified events, have been gathered and analysed over these years.

The overall results from all databases collected have a striking bottom line: "The overall result is highly significant. The odds against chance are more than a trillion to one"! Even if the effects are small in magnitude and the correlations sometimes feeble, their statistical significance is beyond any doubt.

Roger Nelson, as his book brilliantly narrates, used the long held and cherished scientific principle that by doing careful statistics bias decreases as the number of independent observations increases. Hence, he and his network's co-workers managed to increase the objectivity of their study to the levels of Higgs Boson discovery! Now, Higgs Boson discovery estimated cost rises to \$13 billion. The GSP's budget can be estimated to some thousands of dollars (excluding of course the time and expertise provided by its volunteer member base). That makes a difference that scales to a factor of a million to one! The contrast between the reception of these two discoveries is as strong as their budget's difference. This is a very clear demonstration of the immense cultural bias and unreasonable ideological prejudice of today's mainstream science!

It is true that we still lack an overarching physico-mathematical, theoretical, model that could account for the phenomena observed in the book at hand. That is why similar kind of data are disregarded as anecdotal, or simply ignored. But observations cannot be denied forever, this is the way real science has taught us. This is where our intention ought to focus next, it matters.

Yes, it is exactly such kind of non-local consciousness research that might profoundly affect the future, and in an inversely proportional way, more than research on the standard models of physics. We fast approach the moment where "... for the second time in the history of

the world, man will discover fire" as Teilhard de Chardin prophesied. As the reader will find out from this captivating book we know now that we are fundamentally connected and intentions do matter, after all.

Dr Vasileios Basios is a senior researcher at the Department of Physics of Complex Systems and at the Interdisciplinary Centre for Nonlinear Phenomena and Complex Systems, at ULB. He conducts interdisciplinary research on self-organisation and emergence in complex matter as well as aspects of the foundations of complex systems, especially on the borderline between biology, physics and complexity.

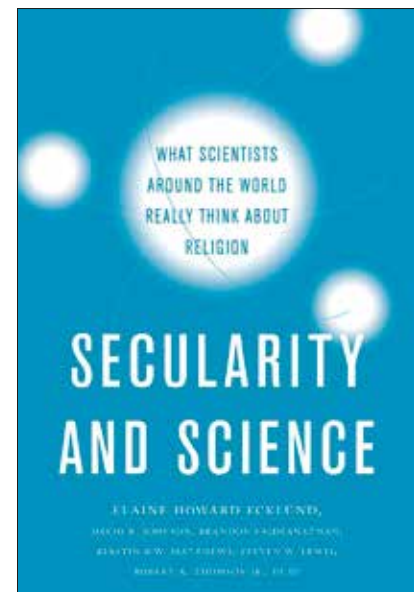
TWO QUESTS FOR TRUTH?

David Lorimer

■ SECULARITY AND SCIENCE

Elaine Howard Ecklund et al

Oxford, 2019, 352 pp., \$29.95,
h/b – ISBN 978-10-092675-5



This book reports on the largest intercultural survey of the attitudes of physicists and biologists to science and religion with 20,000 participants and 600 interviews across eight countries: the US, the UK, France, Italy, Turkey, India, Hong Kong and Taiwan. As readers might expect, there are significant and revealing differences across these cultures, which gives a much more nuanced view of the field as a whole. Some readers may recall our own 2016 survey of spiritual practices and beliefs among European scientists, engineers and medical professionals covering the UK,

France and Germany. Looking at the survey instrument, some of the questions around science, religion and spirituality are very similar, but there are no questions about spiritual experiences, and only meditation and prayer are covered in terms of spiritual practices; and while there is a frequency analysis for prayer, there is none for meditation. The most interesting comparisons concern the relationship between science and religion where the current survey also reports a high prevalence of the option that they are independent areas of enquiry. Our results for the UK were 44%, compared with 46.8% for this study, and for France 52% as compared with 57%. However, the questions were slightly differently set up in that the Rice University questionnaire has three variants of conflict, one of which is that the respondent considers themselves to be on the side of science; this generally corresponds to our category of mutually exclusive. We also found that fewer people felt that spirituality was mutually exclusive with science than religion.

The overall goal of the survey was 'to understand how science is related to ideas of secularisation, or the decline of religion's vitality and influence, among scientists and societies' in terms of belief and identity, religion in the workplace and religion in lifestyles and private lives. The four overall conclusions were that: 'around the world, there are more religious scientists than we might think; scientists – even some atheist scientists – see spirituality in science; the conflict perspective on science and religion is an invention of the West; and religion is not kept out of the scientific workplace.' All this involves epistemologies, cultural traditions, history and politics, in other words social realms, hence the social science approach.

For me, the most fascinating aspect of the study was the profound influence of social contexts - hardly surprising, but nevertheless essential in terms of understanding differences. In the US, the principal problem is that US scientists see the US religious public as antiscience evangelical biblical literalists, hence the prevalence of the conflict view on science and religion, also reflected in the debate about evolution. Part of the context in the UK is the high profile of new atheism and the challenge of Islam – and it is also interesting to note that nearly half of scientists in the UK originate from other nations. With its tradition of secularism, France emerges as the most atheistic country - we also found that France had the highest proportion of atheists at 29%. A further similarity across the two

surveys is that men were more likely to be atheistic and non-religious than women; this trend also applied in our survey to younger respondents, but the current survey does not measure this. One respondent in France was somewhat astonished at the notion of a religious scientist.

Interestingly, the situation is very different in Italy, also a Catholic country where many more scientists are willing to align themselves with Catholicism. The figure here is 58%, as compared with 23% in France, while atheism combined with agnosticism runs at 43% in Italy, and 76% in France. Interestingly, the figures for independence between science and religion are almost identical at 57.1% and 57.8%. For many scientists, religion is a private affair, as Whitehead suggested in the 1920s. In some cases, this is taken further where scientists compartmentalise their beliefs. As a Muslim country, Turkey presents a very different picture with 85% of scientists identifying themselves as Islamic and 61% correspondingly believing in God; this is also reflected in frequency of prayer and attendance at religious services. Correspondingly, the figures for the independence thesis of science and religion are lower at 34%, while collaboration is higher at 32% - the figure in Italy is 15% and France only 7%. The situation is changing, though, with the politicisation of Islam as a threat to the future of science.

In India, religion and spirituality are part of an ethos of accommodation and tolerance. The survey found that science and religion are intertwined and hard to disentangle in spite of the secularisation of the state following independence. Many more scientists in India believe in a higher (immanent) power rather than a personal God, and the figures for atheism and agnosticism combine at only 22%. There is a high level of social participation in rituals at festivals as an aspect of family life. It was here that a Hindu professor of physics stated that the conflict view is born out of a wrong definition of religion: 'you have called religion belief, and belief is anathema to science. Therefore, there is a contradiction between the two. But when you look upon it as a quest for truth, then they become two complementary quests for truth.' (p. 157) In Hong Kong and Taiwan we find a science-friendly Christianity and religion with no religious affiliation 25% higher in Hong Kong; they also exhibit lowest figures for the conflict thesis while the independence view is much higher in Taiwan than Hong Kong.

The final chapter provides a country summary and some more general conclusions reflected from the introduction. Countries differ with respect to religious pluralism and homogeneity. It would have been interesting to gain more insight into the relative perceptions of religion and spirituality, and the survey does report that many scientists identify as spiritual but not religious 'in order to construct meaning in ways they perceive as consistent with scientific practice' and with respect to larger issues of purpose and meaning. Greater influence of women is likely to modify the landscape, and one should note that the historical structures of science are largely masculine. As a whole, the survey gives a rich picture of the field in a variety of cultural contexts, and is well worth close study.

MEDICINE-HEALTH

DEVELOPMENTAL REPROGRAMMING

David Lorimer

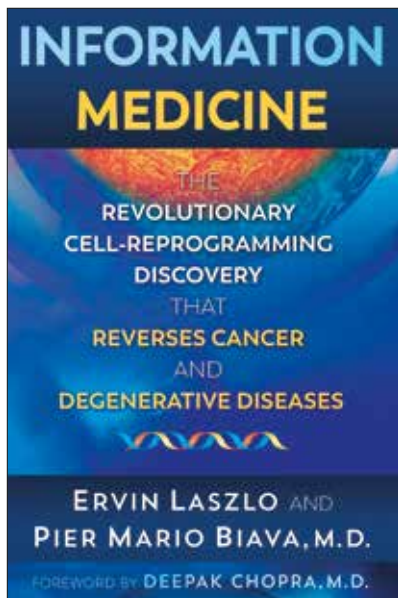
■ INFORMATION MEDICINE

Ervin Laszlo (Hon SMN) and Pier Mario Biava MD

Healing Arts Press, 2019,
208 pp., \$16.99, p/b
ISBN 978-1-62055-822-6

It is 30 years since the publication of *The Second Medical Revolution* by Laurence Foss and Kenneth Rothenberg, subtitled 'from biomedicine to infomedicine' and which I reviewed on these pages. The follow-up book by Laurence was entitled *The End of Modern Medicine*, and was awarded the book prize in 2003 and presented at the annual meeting in 2004. Then in the last issue I reviewed *Healing with Information* by Maria and Istvan Sagi. In this new book, Ervin Laszlo and Pier Mario Biava build on the achievements of the field and the models already developed in the language of vibration, coherence, frequency, resonance, alignment and complexity. Biava has been studying the relationship between cancer and cell differentiation in Milan for more than three decades, so this book represents the fruit of his research set within an emerging philosophical framework. As both Deepak Chopra and Larry Dossey point out, the book is potentially revolutionary in its scientific and clinical applications.

The central idea is David Bohm's idea of in-formation as a universal structuring factor or attractor embedded in what he called the



implicate order that in-forms the unfolding events in the explicate order. This leads to a new definition of health and disease whereby 'health is the full (or at any rate adequate) condition of in-formation in the living organism. Disease is the condition of blocked, reduced or otherwise flawed in-formation. Healing, then, is the re-establishment of the condition of full (or adequate) in-formation.' (p. 12) Underlying this view is the organism as a quantum system where interactions form a complex integral network of relationships. The second chapter explains information medicine in clinical practice at the cellular level, where Biava's research on introducing extracts from a Zebrafish embryo into the organism can reprogramme malfunctioning cancer cells. In this context, cancer can be regarded as 'a complex system where contact and communication with the flow of information among organs and systems of organs is interrupted.' The theory is technically elaborated in terms of cell differentiation in various types of stem cells according to the functioning of the epigenetic code. Stem cell differentiation stage factors (SCDSFs) contained in these Zebrafish embryonic cells have been found to act on tumours by slowing or stopping their growth and restoring the correct programming. Apparently, Zebrafish 'have very largely the same proteins as humans, and access to their genetic material is simple and safe.'

Experiments have been carried out both in vitro and in clinical trials, with considerable success. In one such experiment, in inhibition percentages ranged from 73% of the malignant brain tumour to 26% of the melanoma, bringing about 'cessation of the cell cycle in accordance with the type of tumour, genetic damage

repair, and cell re-differentiation - or the apoptosis (death) of the tumour cells if repair is no longer possible.' (p. 33) Conclusions based on the experiments define cancer cells as altered stem cells 'in which mutations of DNA or epigenetic alterations are present.' In one experiment from the Children's Hospital of Chicago, malignant melanoma reverted to a normal phenotype when it was in the environment of a Zebrafish embryo. Translated into the language of in-formation, these Zebrafish stem cells act as an attractor reorienting the living system towards health and normalcy. The same mechanisms are active during the phases of organogenesis, as observed in a declaration of a committee of oncologists on the research finding it scientifically sound (with 54 references). In summing up the implications, the authors propose that the universe is not a material system, but rather a cosmic information network or more precisely 'a macroscopic quantum system of in-formed vibration' reflected in individual organisms.

The next section consists of seven assessments, mainly by scientists and doctors. Larry Dossey compares the outstanding results of this treatment with standard figures for treatment of primary liver cancer, which highlights its significance, also remarking that this mode of treatment is 'upstream' when compared with the downstream approach of conventional therapies. The second part presents two editorials, four principal reports and a further 10 abstracts of selected peer-reviewed studies with full references. This will enable scientists and clinicians to get to grips with the research and its far-reaching implications for cancer and other chronic degenerative diseases. Sample titles include *a systemic approach to cancer treatment: tumour cell reprogramming focused on endocrine-related cancers; cancer, cell death and differentiation: the role of epigenetic code in tumour growth control; and treatment with stem cell differentiation stage factors of intermediate - advanced hepatocellular carcinoma*. The strength of this novel intervention is the way in which it maps onto existing biochemical understanding, even while presenting the data within a new philosophical framework going beyond the 'anti-' military imagery of battles to the idea of restoring the original programming of the cells in ways that can already be understood through other lines of stem cell research. One can only hope that this potentially revolutionary therapeutic work will not be closed down by the cancer establishment.

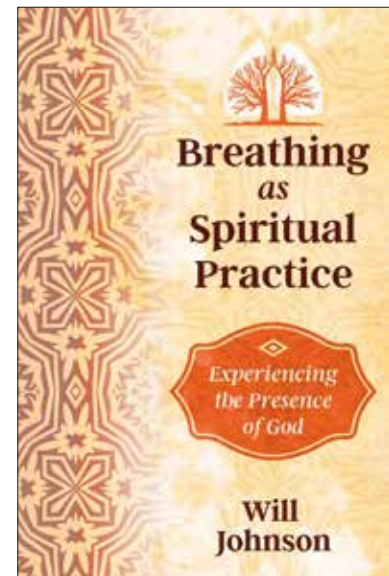
THE WONDER OF BREATHING

Gunnel Minnett

■ BREATHING AS A SPIRITUAL PRACTICE - EXPERIENCING THE PRESENCE OF GOD

Will Johnson

Inner Traditions, 2019,
160 pp., £14.99, p/b
ISBN 978-1-6205-568-87



This book can be described as a daily journal written by someone on a spiritual retreat in a monastery. The author is not part of the monastery, only a visitor. The focus of his retreat is to pay attention to his breathing. Just that. To focus on every breath he takes, all day, every day for as long as he stays there. No more, no less. Coming from a Buddhist background, he wants to follow Buddha's instructions on the awakening of the awareness of breath; "as you breathe in, breathe in through the whole body; as you breathe out, breathe out through the whole body."

This simple activity turns out to lead to a big inner change. By simply paying attention to the breathing, breath by breath, his awareness starts to expand. What Buddha was referring to was not just to breathe in air, he also pointed to a spiritual aspect of breathing: it can expand your consciousness and become a spiritual path to a higher potential.

As a journal of someone on a spiritual path, the book is beautifully written with several poems and suggestions as to how to pursue the experience of expanding the breathing. But personally I think the book would have benefited

from a physiological explanation of breathing; understanding the central role breathing has in the body would have added to an understanding of the spiritual dimension. To make us see that breathing is not just vital for our survival and physical wellbeing, but also a powerful way to deepen our understanding of ourselves and how it can make us expand our consciousness and inner wellbeing.

I have been using breathing as a tool for expanding inner wellbeing since 1980 and have experienced how people have started an inner journey, similar to the one described in this book. It does not matter in what context a person starts to become aware of the potential of the breath. When the person starts to be aware of their breathing, either through altering their breathing pattern or simply by observing the breathing, they tend to start an inner journey.

If this type of comparison had been added to the book, it would have added a new dimension to the personal journey described. Nevertheless, the book offers a very interesting insight to the powerful tool which our breathing can be.

PHILOSOPHY- SPIRITUALITY

APOSTLE TO THE APOSTLES

David Lorimer

■ THE GOSPEL OF MARY OF MAGDALA

Karen L. King

Polebridge Press, 2003,
230 pp., \$24, p/b
ISBN 978-0-944344-58-3

■ THE GOSPEL OF MARY MAGDALENE

Jean-Yves Leloup

Inner Traditions, 2002,
178 pp., \$14.95, p/b
ISBN 978-0-89281-911-9

■ THE MEANING OF MARY MAGDALENE

Cynthia Bourgeault

Shambhala, 2010,
289 pp., \$18.95, p/b
ISBN 978-1-59030-495-2

■ MARY MAGDALENE REVEALED

Meggan Watterson

Hay House, 2019,
239 pp., \$24.99, h/b
ISBN 978-1-4019-5490-1

Since reading and reviewing *The Gospel of the Beloved Companion* with its subtitle the Complete Gospel of Mary Magdalene, I have been researching other scholarly work on the Gospel of Mary and its background. There are three versions extant, two in Coptic and one in Greek, but they all have the same missing sections at the beginning and in the middle. The first was discovered as far back as 1896, but, for various reasons, no version was published until 1955, 10 years after the Nag Hammadi discovery of Gnostic Gospels in Upper Egypt. It is hard to exaggerate the importance of the rediscovery of these Gospels, buried for more than 1500 years in the wake of the order given by Bishop Athanasius of Alexandria in 367 to destroy non-canonical texts. Those who hid them in an urn in a cave must have preserved them in the hope that they would one day be rediscovered. They present a very different portrait of Jesus as sage, a teacher of transformative wisdom and gnosis. And far from being the prostitute conjured up by Pope Gregory the Great in a homily in 591, Mary Magdalene emerges as the beloved companion, herself embodying a profound inner knowing beyond the understanding of male disciples such as Peter and Andrew. She represents Sophia as the counterpart to Yeshua as Logos.

These books explore her role from a number of different angles. Karen King is professor of ecclesiastical history at Harvard, Jean-Yves Leloup is an Orthodox priest and spiritual teacher in his own right who also has a background in psychology, and has translated and edited not only the Gospel of Mary, but also the Gospels of Philip and Thomas (he gave me a French edition of this in 1988). In addition, in developing the bridal chamber imagery of the Gospel of Philip (his edition is subtitled *Jesus, Mary Magdalene, and the Gnosis of Sacred Union*) he has written *The Sacred Embrace of Jesus and Mary - the sexual mystery at the heart of the Christian tradition*, as a result of which the hierarchy of the Orthodox Church requested him to write his

confession of faith. In the course of this, he remarks that there is no evidence that permits him to claim that Jesus expressed his full sexuality with Mary Magdalene or any other woman, but he adds that there is equally no evidence that permits him to claim that he did not do so, noting in the book that what is not lived cannot be redeemed. Cynthia Bourgeault is an Episcopal priest and retreat leader, among whose other books is *The Wisdom Jesus*. Meggan Watterson is a feminist theologian with a Masters in theological studies from Harvard Divinity School and facilitator of REDLADIES, a community of radical love that lets her preach about female saints and mystics who inspire and teach us to live in service of love.

Karen King dates the Gospel of Mary - the only one written in the name of a woman - to the early second century (also about the time of the Gospel of John) which means that it must have been circulating for at least 250 years before disappearing. In this early period, there were many communities of belief trying to make sense of Jesus and his life and message, but what she calls the 'master story' and consequent sharp distinctions between orthodoxy and heresy had not yet crystallised. The picture was one of pluralism, and the creeds only came into existence in the early fourth century when the Roman Emperor Constantine converted to Christianity and established it as the state religion, calling together the (male) bishops at Nicaea in 325. In this way, he consolidated it into a classic dominator system, as characterised in the work of Riane Eisler, whose latest book I reviewed below. In the Gospel of Mary, it is Mary steps forward in a leadership role after the death of Jesus. She models the courage of true discipleship, strength of spiritual character and prophetic visionary insight.

In this gospel, as well as in the Gospel of the Beloved Companion (I have carried out a precise textual comparison), the disciples ask how they are going to go out to the rest of the world to announce the good news given that if they did not spare Jesus, how will they be spared?



At this point, Mary stands up and greets them (in one text ‘tenderly kisses them’) as brothers and sisters and tells them not to be irresolute but rather to praise his greatness, for he has prepared us and made us truly/fully human. This is an important concept, corresponding in the Greek to *Anthropos*, with gender neutral connotations and denoting an archetypal state of integration or the marriage of Heaven and Earth, masculine and feminine, spirit and body. King explains that this means ‘to come to know that one’s true self is a spiritual being whose roots are nourished by the transcendent Good. Salvation means appropriating the spiritual Image as one’s truest identity.’ (p. 61) Another image evoked in Watterson is the Aramaic *idihaya*, meaning undivided.

Peter addresses Mary as sister, saying that the Saviour loved her more than all other women and asking her to tell us the words that she remembers, the things that she knows but which they don’t because they have not heard them (in GBC, ‘the words of the Rabbi which you know and understand, but we do not, nor have we heard them.’ Mary then says that she will teach them about what is hidden from them. In the texts of the Gospel of Mary the vision begins, and then pages 11 to 14 are missing. In GBC, the whole sublime ascent of the soul past the guardians of seven gates is recounted, while the texts of the Gospel of Mary resume at the third power and are truncated. They converge again in a general sense towards the end with references to the chain of forgetfulness existing in time and Mary lapsing into silence ‘for it was in silence that the Teacher had spoken to her.’ In GBC, however, it is clear that Mary achieves gnosis, she sees the all and knows the truth of herself, the truth that is I am – this corresponds to a text the *Dialogue of the Saviour* where Mary is characterised as the ‘woman who knew the all’, becoming ‘the completion of completions’ – the very embodiment of feminine wisdom.

At this point, the texts report that the disciples did not understand what she had been saying. Both Andrew and Peter express disbelief, remarking that the ideas are too different from what they have known (GBC - ‘strange and complicated ideas’), and Peter questions whether Jesus would have spoken privately to a woman about secrets they did not know (‘did he really prefer her to us?’) - and are they to turn around and listen to her? Mary weeps when she hears this, asking if Peter can seriously accuse her of lying. Levi comes to her defence, saying that Peter is treating her as an adversary. As the reader

can appreciate, this episode goes to the heart not only of leadership roles with respect to women and men, but also of spiritual authority – who has the authority to teach and on what basis? The Church has constructed a male apostolic succession on the basis of belief, but here is Mary with a deeper insight – the one who really understands the inner meaning and who has experienced gnosis.

The more general point, treated by all the authors above, is a contrast between soteriology or salvation and sophiology representing gnosis and inner transformation. The first highlights the theological centrality of Jesus’s crucifixion, which King sees as is ‘tied directly to an ethics of sin and judgement.’ For sophiology, the emphasis falls not on Jesus but on his teaching as a revelation of saving truth rather than the crucifixion as an atoning sacrifice by the Lamb of God. In my extensive textual commentary on GBC and the Gospel of John, I highlight the contrast between Jesus saying in John ‘I am the way, the truth and the life’ while in GBC he says that his words are the way, the truth and the life. The Lamb of God discourse present in John is entirely absent in GBC, suggesting that it is a later theological addition. King asks if spiritual authority should be grounded in prophetic experience rather than apostolic succession, contrasting the competing claims of Mary and Peter. Historically, Mary was sidelined and vilified, the letter and the law triumphed over the spirit. However, the Gospel of Mary along with those of Thomas, Philip, the Pistis Sophia and a number of other texts have restored the central position of Mary as the apostle to the apostles in a deeper sense than just being the first to witness the resurrection according to canonical sources. All this is also happening at a time of the resurgence of feminine wisdom and a renewed emphasis on intuitive ways of knowing. In this respect, Jean-Yves Leloup observes that ‘the masculine mind tends to overlook visionary knowledge associated with the feminine principle.’ Maybe we now have the ‘ears to hear’ so frequently referred to in these texts; Mary is one who sees beyond surface hearing and understands that ‘Reality is both who we are, and what we must become.’

Cynthia Bourgeault characterises Mary as the woman at the heart of Christianity and she tries to steer a middle course in view of more sensational coverage in the books of Dan Brown and others. She points out that Christianity has taken its bearings from the monastic model of celibate renunciation, with its implication of sexual abstinence as

the ideal, rather than a sacred state of unitive being; and the shadow of Christian sexuality and the feminine has been projected onto her. She also makes the point that ‘unlike the canonical gospels that emphasise right belief as the basis for salvation, these wisdom Gospels emphasise right practice. They are transformation-minded.’ She sees the relationship between Jesus and Mary as a fifth way of the heart, the path of conscious love involving kenosis or self-emptying, laying down oneself for the other, with both love in the service of inner transformation and inner transformation in the service of love. In the bridal chamber of the heart, one is restored to fullness of being, to one’s true Self (her understanding of salvation) moving from duality to participation, then to union and communion. This spiritual transformation, also symbolised by anointing, is the alchemy of love. At the end of a chapter on France including a section on the Occitan culture that gave rise to the Cathars and courtly love, she remarks that ‘the voice of Mary Magdalene has again spoken loud and clear, calling Christianity back into accountability for the love story at the heart of its theology and to a responsible visioning of human sexuality and feminine wisdom.’ This corresponds to the affirmation of a partnership rather than dominator society, and it is easy to see how the mediaeval Catholic Church represented a classic dominator system threatened by the egalitarian structure of Catharism, where women initiates (*parfaites*) like Esclarmonde de Foix had equivalent status to men.

The recent book by Meggan Watterson is the most passionate and radical, referring to the feminist Gospel of Mary and the Christianity we haven’t yet tried. Not only have we not yet tried this Christianity, it has in fact been buried, persecuted and burned at the stake over the centuries. Like the other authors, she laments the fact that in the fourth century ‘Mary’s status as the companion of Christ, the first to receive his teachings on how to perceive them from within the heart and how to become unified ourselves will all be lost for millennia.’ Women’s spiritual authority within the church has been ‘hard-won, opposed or flat-out rejected from the 1st to the 21st-century’ along with the body and sacred sexuality. She writes of Mary’s sense of betrayal after entrusting the disciples with her secret teachings and being called a liar - then the outrage of being lied about for centuries. Commenting on the logic of fundamentalism, she writes: ‘your God is so small, your God has such a

fragile ego, he will send us all to hell if we don't believe in him...you've mistaken God for power. I think whoever the hell Jesus was, he was about love. I think Jesus was about a love that's the opposite of power.' This last phrase resonates through the book - a love that is the opposite of power, but which in fact represents real power in the sense of potency and the potential to transform.

Watterson reminds us of many forgotten stories involving prophetic women – Thecla and Paul, Perpetua shouting to people to love each other even as she was being dismembered, Marguerite Porete (burned at the stake in 1310) for her book *The Mirror of Simple Souls* where she writes: "I am God, says Love, for Love is God and God is Love, and this Soul is God by the condition of Love.' Then Joan of Arc: 'I am not afraid. I was born for this.' Like the other women cited, Joan listens to the voice of angels, 'listening to the deep. Listening to what we hear from within us. We have never been taught to listen to the feminine, to turn inward, to trust that dulcet voice that knows itself completely.' She sums up the intent embodied in all the books reviewed here: 'what we have remembered is the other half of the story of Christ. We have remembered the love that can only come to life through us, from within. We have remembered her, the woman who knew Christ by heart.' (p. 197) It is a time to remember our ultimately undivided nature, to bring together masculine and feminine, light and dark, conscious and unconscious, human and divine, finite and infinite, merging the self with the soul, standing in and acting from this spiritual presence: a voice in the service of love.

THE RISING WISDOM OF THE HEART

David Lorimer

■ MERCHANTS OF LIGHT

Betty J. Kovacs PhD (SMN).
Foreword by Anne Baring PhD
(Hon SMN)

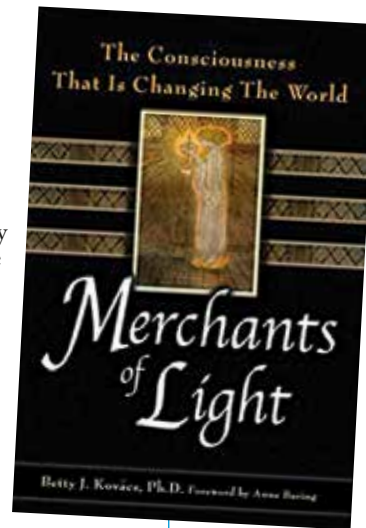
Kamlak Center, 2019,
510 pp., \$23.95, p/b
ISBN 978-0-9721005-5-7

In this book of breathtaking scope and depth, Betty Kovacs reminds us of our inherent divine identity and capacity to create, and how the mystic-shamanic tradition of gnosis has been repeatedly submerged and repressed in Western culture, resulting in a devastating loss of soul and heart. However, her final message is one of hope – if we have created our current

world, we can recreate a new one together that truly integrates heart and head, feminine and masculine, love and wisdom. We can transform imaginably from our limited identity as caterpillars into more expansive butterflies.

Betty's background and experience has some unique features. Her doctorate was in comparative literature and the theory of symbolic/mythic language, and she has taught these subjects for 25 years at university level. In addition, as her earlier book *The Miracle of Death* recounts, she has experienced many dreams, visions and initiations, centrally the death of her son Pisti in a car accident, followed two years later by the death of her husband Istvan, also in a car accident. In the intervening period, Pisti conveyed some essential insights about the nature of consciousness and our evolutionary phase of development. It was he who instructed his father to look up the 18th hexagram from the I Ching, whose code is ML, or Merchants of Light and which stands for 'the transformative laws of an energy field that is activated when we work on what is decayed.' (p. 45) Pisti told his dad to read the hexagram carefully as it was his work, and the work of the Earth in giving birth to a new consciousness at a time when we are 'dreaming a terrible dream' and urgently need to distil light out of our darkness.

After an introductory overview, the second part highlights the complementary roles of the scientist and shaman/visionary as well as key developments in quantum physics and wider cultural developments. Betty diagnoses our current addiction to a worldview that is destroying the planet and tells us the story that life is without meaning and purpose and that only conceptual knowledge is of any value. She then gives a sweeping historical account of the shaman-mystic view of life, going back to 40,000 BC, then the Egyptian mysteries, the loss of Yahweh's partner Wisdom through the Deuteronomists in 621 BC, the significance of the Gnostic Nag Hammadi gospels, and the Church's destruction of the ancient intellectual and spiritual world. The third part draws on her own visionary experience with sacred medicine in Peru, while the fourth part is devoted to retrieving soul, again with a detailed sequential historical



treatment. The fifth part outlines five waves of remembering - the Grail story in the High Middle Ages, the Italian Renaissance, the northern or Rosicrucian Enlightenment, German and English Romanticism, and the current Renaissance, also reflected in the reframing of our consciousness expressed through

the voices of indigenous peoples and reminding us of our true spiritual evolutionary blueprint.

The alpha and omega of the deep structure of reality is Cosmic Consciousness. Betty shows how indigenous cultures from thousands of years ago were able to access this, and still carry this tradition today. The realisation of Cosmic Consciousness is an encounter with our deepest Self, as Chris Bache also articulates in his book review below. Betty resonates with and draws on the work of Peter Kingsley on ancient Greek mysticism and the tragedy of forgetting our true identity. For 1500 years, the Greek mysteries initiated people into a larger vision of life and Cosmic Consciousness until, in 392 CE, they were closed down by the Christian emperor Theodosius. Betty's journey in the book is both inward to the soul or centre of the labyrinth, and outward to history. She shows how the Church's repression of gnosis prepared the ground for modern and mechanistic science, reflecting what she calls the fiction of the superiority of the conceptual mind over the dreaming, visionary mind, which has resulted in the censorship and dismissal of inner experience. In the 18th century, Vico realised that these functions were in fact complementary, as also brilliantly articulated in our time by the work of Iain McGilchrist with which Betty is evidently unfamiliar.

Another key theme is the marginalisation of the spiritual feminine as Wisdom or Sophia. It is fascinating to read about their relationship and the contrast (p. 161) between the Genesis story involving power maintained by fear and punishment, subjection of the female to the male and that human beings should not become like God. The actual mythic pattern is very different, with life as a process of becoming more conscious through seeking inner knowledge and where masculine

and feminine work together, nature is sacred, the goddess is the tree of life and we are initiated into a knowledge of our divinity.

The emergence of the Gnostic Gospels introduces us to a very different 'wisdom' Jesus, as I also explain in my review of books about Mary Magdalene above. Here it is not a question of believing in Christ, but rather following the blueprint of *becoming* Christ through gnosis. As the great high priest, Jesus 'became the model of the return of Wisdom to Yahweh. Jesus embraced Mary and redeemed Yahweh. Once again, "the spirit of Yahweh was the spirit of Wisdom."' (p. 205) However, the Church followed the Deuteronomists, replacing the gnosis of direct experience with dogma and belief in an institutional structure that 'demands obedience from the many and allows for control by the few' as set up by the Emperor Constantine in the early fourth century. Followers of the Greater Mysteries were submerged by the power of those who had only participated in the Lesser Mysteries - countless texts were destroyed, this secret knowledge was buried and forced underground, 'the mystic and visionary life was discredited and lost. Knowledge of the subtle world - the *mundus imaginalis* - was lost. The Gnostic Jesus was destroyed and his beloved Mary Magdalene pronounced a whore.' (p. 215)

Betty explains how repeated waves of Renaissance tried to recover this lost knowledge, but it was repressed and eliminated on each occasion: the Grail, the Cathars and the troubadours; the school of Chartres and the deeper meaning of the cathedrals; the denunciation, imprisonment and poisoning of Pico della Mirandola in the late 15th century; the overtaking of the Rosicrucian Enlightenment, rooted as it was in both mystical experience and scientific exploration, by the mechanistic metaphor and Enlightenment rationalism; the attempt by Romanticism to balance imagination and reason; and the failure to understand the deeper significance of Goethe's Faust in splitting off feeling and the feminine. Betty explains how each renaissance 'has challenged the Western heroic model of mental development with a more complete archetypal pattern for our evolutionary future.' (p. 431)

All this brings us back to the present and the extraordinary scientific, anthropological and cultural developments of the past century (p. 404), including the work of Jung in recovering underground traditions and the widespread occurrence of Cosmic Consciousness and experiences such as NDEs that point

to consciousness beyond the brain. Betty advances reasons why things are different this time as consciousness is being reframed to include a greater reality. She gives examples of many indigenous cultures that have maintained their access to gnosis and an understanding of the deeper laws of nature and are now warning us that we need to change our ways of thinking and acting, paying heed to 'the inner music of the universe.' (p. 417) This is a path of harmony rather than power, manipulation and control, as epitomised in US imperialism that, interestingly, has its roots in a Vatican domination document dating back to 1493. We now need to become conscious of the pathology of the Western worldview with its picture of a meaningless and purposeless universe resulting in an inner and outer wasteland.

However, according to Betty, 'we are now reclaiming the sacred knowledge of *how* we evolve. We are realising that the true role of civilisation is to discover and nurture this knowledge. Our ancestors understood that *civilisation* cannot develop unless it is rooted in the power of the heart to give birth to a *feeling world*. They knew that without feeling, we cannot bring *justice* into being. And they understood that *without the inward journey to develop soul, creation cannot continue to unfold*. The message is clear: without the creative energy of love, we cannot create a true civilisation. And when we cannot create, we destroy.' (p. 441) This is where we all have a role to play and are being supported in this evolutionary imperative by other levels of intelligence that we have called upon to connect in a network of light: 'when we love, we attract the light of love everywhere, and the power of love distils darkness into light. However, it appears that now we all need to focus that love by *consciously* connecting with the nexus points in the great net of light, *consciously* grounding that light in the earth beneath us, and then *consciously* sending that light around the world.' (p. 453)

I urge people to read this profound and moving book and become part of this vital contemporary Renaissance, the fulfilment of our deepest longings for wholeness and cosmic consciousness.

UNITING THE PSYCHOLOGICAL AND THE SOCIAL VIA PROCESS PHILOSOPHY

Steve Minett

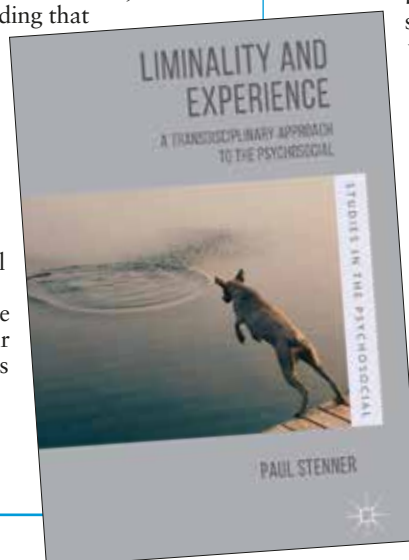
■ LIMINALITY AND EXPERIENCE

Paul Stenner

Palgrave Macmillan, 2017,
257 pp., £57.60, h/b
ISBN 978-1-137-27210-2

As per its eponymous title, this book by the Professor of Social Psychology at the Open University, addresses the concepts of liminality and experience, including the relationship between them. The first of these, 'liminality' (which is probably unknown to most general readers) refers to disruptions to the everyday routines of life for individuals (often described as 'rites of passage'), and/or for societies and cultures, up to and including such macro-historical events as the French Revolution (which is used as an example towards the end of the book). Liminal events can be both spontaneous or the result of 'liminal technologies', such as day-dreaming, poetry, fable and the theatre. The second concept, 'experience' is, within the context of this book, enormously expanded beyond its conventional meaning of individual conscious experience. This is because the book tackles its mission via the particular ontology of Process Philosophy: taking an 'ontological' approach means that the book attempts to access, or (at least) consider the reality of the processes taking place 'behind' or 'beneath' our observation, whether everyday or scientific.

As to what Process Philosophy amounts to, it can perhaps be best summarised as a dismissal of Descartes's split between mind and matter, replacing it with a conception of reality as a succession of temporary 'states of being', plus the transitions between them: as Stenner says; "... the basic 'atomic' units of process are events or actual occasions of experience, and a large number of such 'micro' units ... together compose the various macroscopic entities that constitute ourselves, our bodies and our worlds." [p.123] In other words, 'experience', in the sense attributed to it in Process Philosophy, is what constitutes the ultimate fabric of reality and everything that exists ('mental' or 'physical')



is ultimately composed of it. In his analysis of liminality and experience, Stenner is using the ontology of Process Philosophy, as developed by philosophers such as Henri Bergson, William James and (especially) Alfred North Whitehead, to pursue a particular intellectual project; namely to breakdown the boundaries erected by academic disciplines between what is defined as 'psychology' and the subject matter of the other social sciences: Stenner says that, since the nineteenth century, 'psychic' and 'social' have been; "... institutionally cleaved apart by being lodged within separate specialisms (sociology, economics, etc. dealing with social relations and structures in abstraction from questions of psychology, and psychology dealing with the 'internal' processes of individuals abstracted from their concrete historical and social milieu.)" [p. 9]

A large part of the responsibility for this mistaken (and damaging) separation of the psychological and the social can, according to Stenner, be attributed to an erroneous (but still popular within Western scientific culture) ontology which he calls 'Shallow Empiricism': essentially, this assumes that only 'primary' qualities, i.e. those that can be mathematically measured, such as speed, size and shape, are truly real. 'Secondary' qualities, i.e. 'qualia' such as taste and colour, are ultimately not real at all. In his effort to refute Shallow Empiricism, Stenner refers to Whitehead's idea that humans have access to two modes of perception, which Whitehead called 'presentational immediacy' and 'causal efficacy', these are; "... different 'ways' available to an actual entity of objectifying other perceived actual entities. Although each mode of objectification is a selective abstraction from formal completeness, each, in its pure form, is nevertheless a mode of direct experience. Neither, therefore, admits of error: what you experienced you have experienced. ... error enters only when the two are combined in a synthesis ... contributed by the percipient itself to what is perceived." [p. 92]

This (it seems to me) is the key to Stenner's account of liminal events: an example he repeatedly uses is that of the dog in Aesop's fable, who (out of greed) drops the piece of meat in his mouth in an effort to get the addition piece he sees reflected in a pool of water. The dog seeing the reflection is a result of perception via 'presentational immediacy', while his dropping the meat from his mouth is an example of perceiving the real situation via the mode of 'causal efficacy', thus creating what Stenner calls a 'this-is-not' experience. This fable could also be analysed in terms of G.H. Mead's

division into 'distance experience' and 'contact experience' (which is also cited by Stenner). Mead's conception of two modes of perception is almost exactly the same as that of the psychologist, Nicholas Humphrey [1992] who calls them 'Sensation' and 'Perception'. Humphrey, in turn, attributes the original conception of this dual-mode theory of perception to the eighteenth-century, Scottish philosopher, Thomas Reid. (All of these thinkers employed a much more succinct and less cumbersome terminology than Whitehead, though Stenner refers to neither Humphrey nor Reid.)

Stenner claims that Process Philosophy gives the concept of liminality a key ontological role for four reasons: the first two arise from Process Philosophy's insistence that the essence of all things is both *relational* and *processual*. Given this, the 'betwixt and between' of liminal events becomes both salient and relevant. Thirdly, in contrast to the substantialist and representationalist thought of Shallow Empiricism, Process Philosophy emphasises creativity and emergence: process cannot be separated from its 'content'. It's not just meaningless movement, but concerns the emergence of novelty: Stenner quotes Whitehead to the effect that the; "... expansion of the universe with respect to actual things is the first meaning of 'process'". [1929, p. 327] Stenner adds that: "This expansion occurs through the process of concrescence during which a 'particular existent' is constituted in the fluency of an actual occasion. By way of an actual occasion of experience, something *new* is added to the data that are patterned into a unity, since what is added that was missing before is precisely this element of pattern." (p.264) The fourth reason Stenner gives for linking liminality and Process Philosophy is that the latter, as an ontology, stresses experience and especially; "... experience conceived as a liminal *going through*." [p.264] (Let me at this point make a comment about the distinctly Post-Modernist 'whiff' emanating, as in these examples, from the language of the book. I am definitely not a fan of Post-Modernist prose. However, given that the book is striving to reach beyond Shallow Empiricism towards a more realistic and fruitful ontology, I'm willing to struggle, often line by line, to interpret the text, especially as I'm convinced that it never falls over into deliberate and self-satisfied obscurantism.)

An additional major theme of the book (chapter six) is Stenner's discussion of what's known as the 'turn to affect' in the social sciences and especially the distinction between affect and emotion. Stenner notes that an insistence that affect *is not* emotion;

"... has become almost synonymous with affect theory." [p.211] He quotes a reader on emotion, which he co-wrote with M. Greco in 2008: "Emotions became the object of a tug-of-war in which social scientists ... struggle to drag them across the line separating the psycho-biological from the socio-cultural." [p.206] Prior to this struggle (they claim) it had been assumed that both emotion and affect fell squarely within the territory of natural science. There follows a long and complex discussion of the affect/emotion distinction. My own view regarding this distinction is taken from the neurophysiologist, Jaak Panksepp [2012]. Panksepp makes the (to me) very simple and compelling distinction: 'emotion' refers to the observable, neurophysiological processes which cause our bodily reactions in the major emotions, such as anger, fear, joy, etc. This includes such physiological processes as changes in, for example, blood pressure and hormone secretion. 'Affect', on the other hand, is the *subjective* aspect of experiencing the emotion, i.e. how anger, fear, joy, etc. *feel!* However, Panksepp is also clear that this subjective affectivity is the product of neurophysiological and *not* socio-cultural processes. Panksepp also insists that there are seven universal human emotions hard-wired into our nervous systems and that we are also very much predisposed to share and empathise with each other's affects, via 'mirror' neurones and our general hyper-sociality. Only a Shallow Empiricist perspective would ignore 'affect' and focus on 'emotion' (in Panksepp's terms). Therefore, it seems to me, that Panksepp's affect/emotion distinction is very congruent with Stenner's goal of uniting (or re-uniting) the psychological with the social.

Steve Minett, PhD, (<https://consciousness.wordpress.com>) author of 'Consciousness as Feeling - a Theory of the Nature and Function of Consciousness', the Edwin Mellen Press, New York, 2019

RESTORING THE WESTERN MYSTERY TRADITION

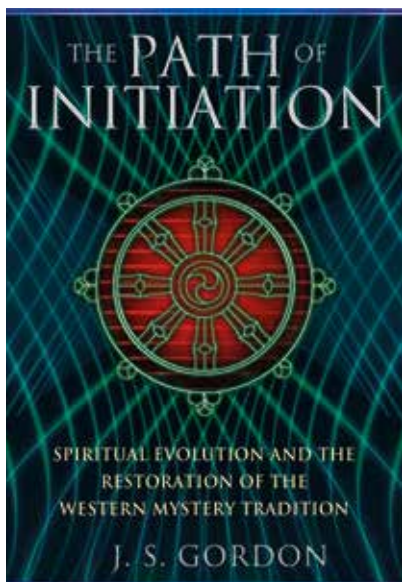
Edi Bilimoria

■ THE PATH OF INITIATION

J. S. Gordon (late SMN)

Inner Traditions, 2013, 608 pp., \$19.95, p/b ISBN 978-1-620551-73-8

This book should display a warning message on its title page: 'Caution – A magnum opus: compelling reading, but definitely not for skimming through on your Kindle!'



As the subtitle states, the path of initiation in the book deals with the restoration of the Western mystery tradition concomitant with spiritual evolution. The restoration of the Western tradition is especially apt for two main reasons. First, many people equate spirituality and the mysteries just with the East and ignore the fact that the West has its own rich tradition as well. Second and more importantly, as the world-travelled sage and philosopher Paul Brunton pointed out, the Western peoples will never take wholesale to Eastern religions, nor will their intelligentsia take wholesale to Vedanta or Theosophy as philosophies. These forms are too alien and too exotic to affect the general mass. Historically, they have only succeeded in affecting scattered individuals. The West's spiritual revival must and can come only out of its own creative and native mind – and that mind is highly influenced by Western science.

In the approach to the psycho-spiritual world, the mystic is concerned primarily with the intensity of his inner experience and its repetition. Such questions as 'Why?', 'How?', 'For what purpose?', 'In what context?' are of secondary concern to the mystic, but they are of absolutely major concern to the esotericist and occultist who, as Gordon admirably elucidates and elaborates through the course of the book, 'sees and recognizes the "inner world" as a progressive theophany (subjectively visual perception of divine organization) of far greater extent and reality than the objectively visible world' (p. 2).

Accordingly, the book provides very useful and comprehensive accounts of the allegories, sacred metaphors and myths as found in the ancient mystery traditions worldwide: the

Egyptians, Assyrian and Chaldeo-Babylonians, Indo-Persians, and Greeks. Also provided are the salient features pertaining to Buddhism, Islam and Manichaeism; and the Jain, Hebrew/Judaic, Pythagorean, Platonic, Sufi, Vedic, Chaldean Oracle, 'Gnostic', Scandinavian, Early Christian, Hermetic, and other sacred traditions. Throughout this panoramic survey it is shown that all the ancient traditions saw and based their philosophies on the central metaphysical concept of a sevenfold system of being and consciousness within the octave of existence, which comprises and is expressed by the soul principle. Additionally, that all were based on the idea of there being but One (Unnameable and Unknowable) Divinity, an aspect of which generated the One Universal Soul, or Oversoul, from which all other souls derived their existence.

Especially useful are the several tables of correspondences, supported by explanatory narrative, between the visible and the unseen worlds pertaining to both nature and man according to the Hermetic Axiom 'As above, so below' and indeed, there are some eloquent, short quotations from the *Hermetica*. The dynamics of involutory cycles involving the deva or angelic hierarchies, the elemental and nature spirits, and evolutionary cycles involving the sequence from mineral to plant to animal to human bear careful study. We realize why the highest development of one kingdom of nature provides the medium for the first, rudimentary stage of development of the next higher kingdom.

Interestingly, Gordon dedicates his book to the Rational Soul of the World as does Manly Hall his own book *The Secret Teaching of the Ages* from which this extract (from Chapter 18) is apposite: 'In the Mysteries it was customary to refer to initiates as *phoenixes* or *men who had been born again*, for just as physical birth gives man consciousness in the physical world, so the neophyte, after nine degrees in the womb of the Mysteries, was born into a consciousness of the Spiritual world. This is the mystery of initiation to which Christ referred when he said, "Except a man be born again, he cannot see the kingdom of God" (John iii. 3)'. However, Gordon makes no mention of Hall, his major esoteric and metaphysical sources being Helena Blavatsky and Alice Bailey. Moreover, he also disdains any mention of the various sub-branches of modern theosophical thought pursued by such as Besant and Leadbeater and the Anthroposophy of Steiner because he finds little

originality in their concepts or lines of thought. This restriction of ideas to essentially classical Theosophy and the Arcane School would seem an unnecessary constraint on a work that otherwise displays immense scope and outreach.

The contents are organized in four parts and five appendices, with Epilogue and supplementary material. Part One 'Consciousness and the Evolutionary Instinct' deals with an understanding of spirit, soul and consciousness in general; human consciousness; the unseen kingdoms of nature; karma and reincarnation; and evolution. Part Two 'Historical Background to the Mysteries and Path of Initiation' concerns sacred metaphor and allegory in the ancient mystery traditions; and then the 'Dark Ages' and the rise of Western esotericism. Part Three 'The Stages of the Initiatory Path' describe spiritual discipleship and probation in a modern age; the initiations of the threshold to higher stages; the great transition; and the various stages of adeptship. Part Four 'The Adept Brotherhood and the Mysteries' elucidates the masters of the modern Theosophical movement; the mystery of Jesus the Christ; the Christ-Maitreya Buddha mystery; and the modern restoration of the mysteries. The appendices throw further light on planetary evolution (rounds and chains); the issue of Shamballa; the evolution of the human racial type; solar systems and the fate of the Moon; and spiritual avatars.

Gordon is especially qualified to deal with the the historical aspects of the subject as he held a recent master's degree in Western Esotericism from the University of Exeter. The occult and esoteric expositions are the fruitage of several decades of study, lecturing and teaching as a senior fellow and one of the most eminent thinkers of the Theosophical Society of England. Given this background, the poetical aphorisms in *The Voice of the Silence* are used as the explanatory basis for the stages on the path of initiation. The stepwise process of initiation and the sequence from the neophyte aspirant culminating in adeptship are detailed. This includes the characteristics of each stage of initiation and, very helpfully, the severe tests and psychological problems that need to be faced and overcome in order to progress. Indeed, and in one sense, Gordon's book can be seen as an extended commentary and elucidation of Blavatsky's sublime manual for spiritual aspirants undergoing the trials of the initiatory process.

Consciousness is currently a massive conundrum in mainstream

science. Vast sums are wasted, and countless hapless rats and monkeys are sacrificed in frenzied research into how (according to materialist neuroscience) the brain generates consciousness. This book makes it quite obvious that consciousness can never, and will never be understood without taking full cognizance of the Ancient Wisdom and the illuminating expositions provide a major step towards such an understanding of a topic on which neuroscience, by its own admission, is barely scratching the surface. Related to this, the limits of Darwinism are logically and succinctly laid bare. It soon becomes obvious that a theory of evolution based exclusively on genetic mutation and natural selection is completely sterile to account for the higher characteristics and spiritual dimension of man. It is also a popular statement or belief in conventional religion that man's spirit is within his body. According to the conclusions of philosophy and theology, however, this belief is erroneous, for, as Gordon explains, spirit first circumscribes an area and then manifests within it. Philosophically speaking, form, being a part of spirit, is within spirit; but: spirit is more than the sum of form. And this is another reason why Darwinism – limited entirely to changes in the physical form – is so incomplete.

My only other reservation is the frequent references to the deficiencies of science to explain the deeper workings of nature. This is absolutely so, and I have no issue with highlighting the shortcomings of science. But the several cursory and condescending remarks are more likely to engender anger and criticism from scientists instead of encouraging them to look deeper into the limits and limitations of science (as would surely be the case, for example, in the diplomatically worded *Galileo Commission Report – Beyond a Materialist Worldview – Towards an Expanded Science* published by the *Scientific and Medical Network*, www.galileocommission.org.) The principles underlying esotericism and occult science that comprise the vast bulk of the book are quite magnificent, but it is questionable whether such principles can be used, virtually literally, to explain problems strictly within the boundaries of the physical sciences. These days, science has become a vast industry involving huge machinery, massive expenditure and the unwritten commandment that any scientist who dares to step outside the strictly materialistic paradigm in his research will find his career in ruins. So, I am absolutely all for constructive speculation in science but how far can we speculate.

For example, can the phenomena of gravity and levity be explained by the harmonic overlap between the energies emanating jointly from the core of the Earth and the ionosphere surrounding it (p. 130)?

Notwithstanding the above, perusing this book the reader will slowly come to realize that in walking the path of initiation into the mysteries, the law of birth and death is transcended, and, as Manly Hall puts it, during the course of physical existence that part of the spirit which is asleep in form is awakened without the intervention of death – the inevitable Initiator – and is consciously reunited with the overshadowing substance of itself. This is at once the primary purpose and the consummate achievement of the mysteries: that man shall become aware of and consciously be reunited with the divine source of himself without tasting of physical dissolution, as in the Egyptian rites of Osiris, to give but one example, whose death and resurrection figuratively portrayed the spiritual death of man and his regeneration through initiation into the Mysteries.

Gordon graciously acknowledges his gratitude to his academic colleague and friend Professor Nicholas Goodrick-Clarke, 'whose sudden and unexpected passing from our midst at such an early age (in 2012) has sadly deprived the worldwide community of esoteric studentship of one of its brightest and most prolifically informative lights.' It must also be stated with equal candour that Gordon's own unexpected and untimely passing just one year later has deprived the Theosophical Society in England of undoubtedly the last of its finest, penetrating scholars, and esoteric scholarship worldwide has lost a profound and dedicated student and highly original researcher of the Eternal Wisdom.

CHARACTER AND IDEALS

David Lorimer

■ WILLIAM JAMES, MORAL PHILOSOPHY AND THE ETHICAL LIFE

Edited by Jacob L. Goodson

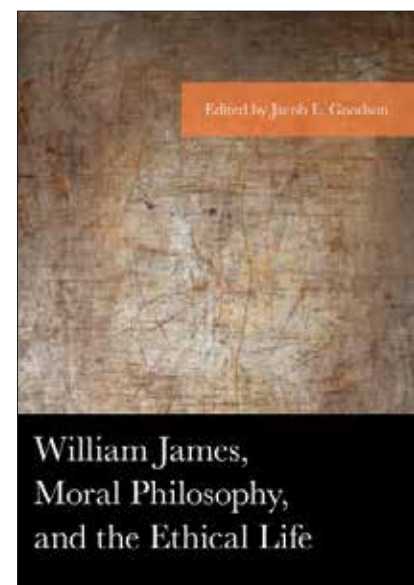
Lexington Books, 2018,
408 pp., \$80, h/b
ISBN 978-1-4985-0534-7

I first read William James's famous Gifford Lectures, *The Varieties of Religious Experience*, in the summer of 1978 when I was on a Churchill Fellowship in Germany studying how business English was taught to see if

I could learn anything useful relating to my own teaching of foreign languages. I sat in a park in Marburg soaking up the beautifully written text with its formative insights into the nature of spirituality and mystical experience. Since that time, James has been a constant influence in my life and I drew on a number of his ideas in writing my first book *Survival* in the summer of 1982 - more on this below. This new volume of essays covers principally his writings on moral psychology and philosophy in relation to some of his key ideas expressed both in texts and more popular lectures. The treatment is relatively technical, but accessible to those readers with a special interest in William James.

My shelf of James's books includes his volume of *Talks to Teachers on Psychology and to Students on Some of Life's Ideals* dating from 1899 and which went through six printings in this first two years. Then there is *Papers on Philosophy*, inherited from one of my mentors, Norman Cockburn, who bought the book in September 1929. I mention these in this context since the intent of James's popular talks is always practical, and he even refers to weeding out some of the analytical technicality in his write-ups since he knows from experience that people appreciate concrete practical application. Since the philosophers in this volume are specialists in analytical technicality, one occasionally has the impression that they miss this practical angle, which is perhaps one of the reasons why James was never a fully systematic thinker and changed his orientation as he matured.

James's practical bent is reflected in his preoccupation with character, habits, virtues and will, while also emphasising the primacy of emotion,



even in relation to reasoning – one of his talks, discussed in this volume is *The Sentiment of Rationality*. He would have appreciated the term emotional intelligence and started his considerations from real sentient beings rather than philosophical positions, always linking thinking and feeling while taking account of temperament, for instance the difference between easy-going and what was then called strenuous, typified by Theodore Roosevelt who even wrote an essay on the topic. The editor writes about James's ideal and sentimental virtues, citing in the first category tolerance, love towards others, courage, humility, patience, reverence and good humour; and in the second, sympathy, insight and goodwill - insight is important when it comes to our natural and conditioned blind spots and inability to enter into the lives of others in a fully empathetic fashion. For James, the moral life requires the activation of moral energies that should be directed towards the improvement of society - characterised here as his philosophy of meliorism [in one of my other books there is an excellent essay entitled *The Energies of Men* dealing more broadly with the powers that we often fail to use]. Moral energy is an energy of the will, an important category in James's overall approach and somewhat underemphasised in our own time. A famous essay is entitled to *The Will to Believe* and is discussed in this volume is a moral philosophy characterised by empowered individualism (choice and will), and with interesting historical parallels with Stoic ethics and the approach of Marcus Aurelius.

Moving to a different theme, two essays are devoted to the moral implications of James's *Lectures on Human Immortality*. These short lectures delivered at Harvard in 1898 had an enormous influence on my thinking when I was writing my first book, and are readily accessible on the Internet. As noted in my review of *Mind Beyond Brain*, his filter or transmission theory of the relationship between brain and mind has been taken forward by faculty at the Division of Perceptual Studies in the University of Virginia. A shortcoming of both these essays is that they make no reference whatsoever to research on survival, concentrating instead on philosophical and ethical implications. Ermine Algaier raises the interesting point of the mainstream view - in this case of brain and consciousness - being regarded as objective and certain, resulting in 'arbitrary and oppressive epistemic, social, and moral restraints on the epistemological minorities', in this case people open to the possibility of an afterlife, regarded as irrational by the mainstream, a

dogmatic pronouncement which James questioned with his approach of radical empiricism. This is still broadly true today, and the author also remarks on the process 'whereby metaphysical speculation dogmatically transforms itself into authoritative knowledge.' (p. 212)

It is interesting to learn of James's criticism of American foreign policy, for instance of the US invasion of the Philippines. He identifies US exceptionalism in supposing that it is a better nation morally than the rest and without the old savage ambitions; however, 'Human Nature is everywhere the same; and at the least temptation all the old military passions rise, and sweep everything before them.' (p. 223) This is still true today, as analysed in the work of David Ray Griffin on the topic. James writes that US humanitarian posturing is nothing more than a cloak for their actual intentions: 'we are here for your own good; therefore unconditionally surrender to our tender mercies, or we'll blow you to kingdom come.' (p. 225) Having said this, James took heroism seriously along with the human need for 'strength and strenuousness, intensity and danger' (from his essay *What Makes Like Significant*). His seminal contribution is an essay on the moral equivalent of war, where he writes of the need to discover in the social realm 'something heroic that will speak to men as universally as war does, and yet will be as compatible with their spiritual selves as war has proved itself to be incompatible.' (p. 233) This need for courage and a strenuous life - the martial virtues - is perennially with us, and is partly fulfilled in sporting contests between countries, but it also requires an individual outlet.

The final part of the book returns to the education of moral character, with a comparison between James and Aristotle's virtue ethics and practical wisdom. Pamela Crosby discusses the value of a critical sense, of mobilising ideals for the improvement of society, of active virtues and habits, and of character education, which has recently made a comeback around the world as people realise its value in terms of personal development, integrity, resilience and leadership. This brings us full circle to James's preoccupations with character, will, habit and virtue mentioned at the beginning. It is embodiment and practice that realises the ideal, relating moral thinking to moral action in the world. On this basis, I would strongly encourage users to acquaint themselves with James's essays, after which the analytical treatment in this volume will be all the more interesting.

PSYCHOLOGY- CONSCIOUSNESS STUDIES

DIAMONDS FROM HEAVEN

David Lorimer

■ LSD AND THE MIND OF THE UNIVERSE

Christopher M. Bache (SMN)

Park Street Press, 2019,
338 pp., \$19.99, p/b
ISBN 978-1-62055-970-3

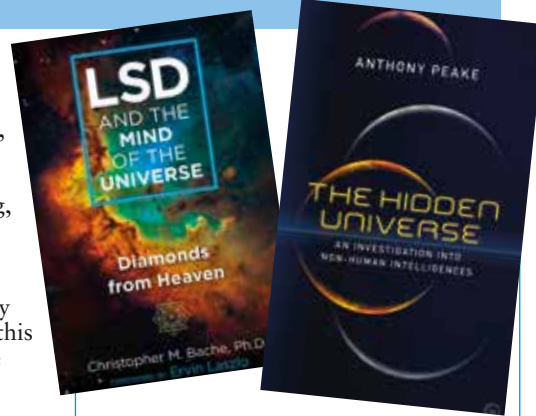
Chris Bache's remarkable book, *Dark Night, Early Dawn - steps to a deep ecology of mind*, came out nearly 20 years ago in 2000 and already contained some of the extraordinary passages extracted from records of his 73 high-dose LSD journeys into what he calls here the Mind of the Universe. The first of these sessions dates back exactly 40 years to November 1979, when he was 30. Only now, at 70, is he able to go fully public with these revelations. Ervin Laszlo in his introduction points out that to understand the significance this book, readers have to be willing to entertain three premises: 'that there is an intelligence behind the things that exist in the universe, that there is purpose exhibited by this intelligence, and that it is humanly possible to access some elements of this intelligence and learn some aspects of its purpose.' Although there has been a recent revival in interest in the therapeutic value of psychedelics, this book addresses their philosophical value in terms of what we can learn about the nature of consciousness and reality by accessing altered states that remove the everyday filters of the brain.

The resulting insights are literally mind-blowing in extending our narrow and limited human perspectives. At the outset, Chris explains his method and protocol, - which involves systematically pushing the boundaries of experience in carefully structured psychedelic sessions, making a complete and accurate record following each session, then critically analysing the experience, bringing it into dialogue with other fields of knowledge. It is this integrity, precision and incisive commentary that make this text so remarkable. His records bear witness to the journeys of an intrepid psychonaut whose 20-year odyssey has yielded an extraordinary harvest of luminous insights into the deeper structure of reality and the underlying dynamics of human existence. Readers can only stand in awe of his courage and persistence

in undertaking such a profound archetypal journey on our behalf, repeatedly exposing himself to death and rebirth, embracing untold collective human suffering, and bathing in the compensating ecstasy of cosmic light and love that followed. He discovers that death and rebirth operate at every level of reality and that death in this context 'is actually a very intense form of purification' (p. 161).

The sessions are presented chronologically in the context of their overarching themes, with individual titles for each session. Only gradually with practice and persistence was Chris able to refine his recall of experiences so far beyond our normal egoic range. The very nature of perception and identity is expanded almost infinitely and unimaginably through space and time as the realisation dawns of the smallness of human lives within the vast evolutionary scheme, even while individual awakening and conscious participation remain essential. The idea here is not to escape from physical reality but rather to awaken fully within it. Chris finds himself in deep time and in an ocean of suffering, all of which he can only understand by becoming it. He gains a new understanding of the reincarnation process, realizing that all our former lives eventually fuse into a single, integrated consciousness, which he calls the Diamond Soul.

At one point, he experiences himself as a Cosmic Tree where 'different lives around the globe were simply different experiences the tree was having' with consciousness 'manifesting itself in separate forms while remaining unified.' This leads him to the understanding that the universe is 'a single unified organism of extraordinary complexity and subtlety reflecting a vast Creative Intelligence' (p. 123) - but also a Cosmic Love, which many others have also experienced. In this Oneness, there are 'precise patterns of connectivity that weave our minds and even our bodies into larger wholes'. On another occasion, 'after hours of extremely high energy purification, I began to experience physical existence as a unified field, as an unbroken tissue or matrix. Individual life forms were crystallizations of this matrix. My very incarnation was a distillation of this living fabric.' Later, he elaborates (p. 216) 'At one point, my vision zeroed in on this process so deeply that the "units" of individual lives disappeared completely. At this level, human lives were simply crystallizations of patterns of a fluid energy that made up our species-



being. Individuals were "forms" that drew together portions of this energy into somewhat fixed and firm configurations. In themselves these forms were not solid. They simply drew to a head energy existing in the species field.' All this conveys a fundamentally expanded epistemological and ontological horizon of the relationship between the individual and the collective, or species-mind.

Over the past year, there has been a growing worldwide realisation that we are heading into a global environmental emergency if we continue with business as usual. Only yesterday, Marilyn Monk sent me an article from *Science* entitled *Pervasive human-driven decline of life on Earth points to the need for transformative change*. For Chris in his visionary state, the core scenario we face is planetary breakdown followed by breakthrough: 'while the threat of a global crisis has grown decade by decade, the vision of our future that has repeatedly come through my sessions is that humanity is rapidly approaching a breakthrough of evolutionary proportions.' However, consistent with the central theme of this book, such a Great Awakening entails a Great Death analogous in my view to a planetary NDE: 'we must be emptied of the old before the new can emerge. I have come to believe that the 21st century will be such a time.'

Here is where we are: 'history is intensifying. Feedback loops are accelerating. Time is becoming concentrated. Developments are unfolding exponentially. The past is rapidly catching up with us; debts put off for generations are coming due; a new beginning approaches. The ecological crisis will precipitate a death-rebirth confrontation that will shatter our psycho-spiritual isolation both individually and societally and bring forward an awakening of common ground within us.' Echoing Bede Griffiths' description of our future as a 'crucifixion on a worldwide scale', Chris writes: 'humanity's transformation will come about through terrible suffering. This suffering will be triggered by a global

wide systems crisis. Our species will change when our collective pain simply becomes unbearable any longer.' The process will be so severe that it will impact the collective unconscious itself, and since the outer reflects the inner: 'the global systems crisis taking place in the world outside us is deeply connected to the evolutionary metamorphosis taking place inside us,' eventually leading to the birth of the Diamond Soul in history: 'everywhere new social institutions sprang into being that reflected our new reality - new ways of thinking, new values that we had discovered within ourselves during the crisis. Every aspect of our lives was marked by new priorities, new perceptions of the good, new truths.' This is exactly what liberal progressives are calling for, even now, but it is fiercely resisted and ruthlessly overridden by global vested interests. Chris adds that 'the speed with which new formations were emerging in the collective psyche reflected the superconductivity of nonlinear systems. These new forms were not just temporary fluctuations but became permanent psychological and social structures marking the next stage in humanity's long journey of self-activated awareness.'

If this all sounds a truly daunting prospect, Chris reminds readers of the vastness of the evolutionary process across space and time and that we are here to experience this profound transition as souls. There is much more to add in terms of his incredible journey into the Diamond Light, which space does not allow, and where 'the goal of deep work is to make ourselves transparent to this Infinity, to let as much of it into our earthly lives as we can skillfully manage, and be patient with the rest.' Prepare to be entranced, amazed, energised, purged, shattered, illuminated, liberated and reborn by penetrating to the heart of this stunning revelation for our times.

WHAT IS REALITY?

Amber Poole

■ THE HIDDEN UNIVERSE: AN INVESTIGATION INTO NON-HUMAN INTELLIGENCES

Anthony Peake

Watkins Publishing, 2019,
230 pp., £12.99, p/b
ISBN 978-1-78678-280-9

Throughout human history people have reported encounters with non-human entities such as fairies, angels, and extraterrestrials.

Are non-human entities mind-created? Are they manifestations of a collective mind? Can we will them into being? According to Anthony Peake in his new book, *The Hidden Universe, An Investigation into Non-Human Intelligences*, the answer appears to be yes.

He expertly devises a structure in which he presents a compelling account of these non-human entities he calls Egregorials and how they have presented themselves throughout history. From his Introduction: "Egregore is Greek in origin and derived from egregoros, meaning 'wakeful' or 'watchful'." The first half of the book follows a chronological/historical trajectory beginning in the Upper Paleolithic period. Noting the considerable task of presenting this comprehensive material age by age, Peake breaks off at the point of the Middle Ages and shifts to a series of themes such as The Secret Commonwealth, The Occult, Extraterrestrials and so forth. Within these groupings he organises his discoveries on how the Egregorials have overlapped throughout time.

The Kenoma is what Peake refers to as the everyday world, while the hidden world is called the Pleroma. Does the hidden world exist and is it populated with beings just as the everyday world expresses itself through humans? The book points to a convincing number of events suggestive that the Pleroma is in fact populated with beings just as is our world. So it begs the question, what is real? Have we imagined them into existence? For that matter, have we imagined our own world?

The Book of Enoch, an ancient Jewish text, describes groups of entities known as 'Watchers' that came down from the heavens and in some instances are purported to have mated with human women to create a race of hybrids.

There are the fairies and those from ancient times, Zeus and his pantheon of gods, and even a variation on the Egregorial model, those entities who prey on our fears and cause great chaos, known as Parasites.

The data is vast and not easily penetrable but the author persuasively reveals the connectivity throughout human history of these Egregorials from ancient times to the Blessed Virgin Mary encounters to present day UFOs.

The linkage between caves, grottos and water is also a curious feature of Egregorials and where, if one were inclined to happen upon such a non-human entity, it would be here.

While *The Hidden Universe* very generously offers examples of these chance meetings with Egregorials and successfully portrays a character study of them, Peake goes one step further in his research to introduce a possible scientific relationship.

"Quantum physics tells us that the waves that make up physical objects such as electrons, atoms and molecules are not like water waves or sound waves. They are waves of probability and are purely mathematical structures; they have no physical reality. What makes them physically real is when their probability wave is 'collapsed' by an act of observation."

Not everyone agrees about the meaning of observation. On one side of the argument is the assertion "... that an act of measurement only takes place when it is consciously evaluated by a sentient being. The implications of this 'measurement problem' are profound. If true, then we all create the reality around us by observing it. Suddenly consciousness is central to the creation of the physical world, rather than something peripheral. Is this how Egregorials are also conscious entities, and therefore also responsible for creating their own realities, then could it be that the overlap of consciousnesses in the 'observer' and the 'Egregorial' exists in some kind of feedback loop?"

Does consciousness create reality or the opposite, does reality create consciousness?

In his Epilogue, Peake takes us to the far-reaching frontier of holograms and digital information. Could it be, "We are all existing in a computer game of our own lives created by our descendants."

Presenting this view that we may be living in one big simulation, the reader must ask if this helps people live their lives? Whether it impacts the day to day routine of one's life is an open-ended question. That we are at the threshold of a provocative science which is asking us to re-evaluate the true nature of reality, is an exciting certainty.

The Hidden Universe is an absorbing book and is highly recommended for anyone wanting to challenge old precepts about how this world is all put together.

Amber Poole is the Vice President of the Sichow Educational Foundation in Poland. She is a graduate of the Edward Albee playwrighting workshops in Houston, Texas and enjoys writing plays for children and teaching English as a second language through theatre classes.

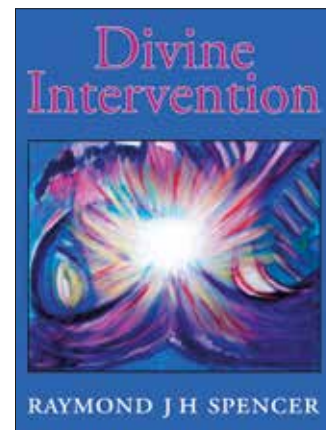
AN EVOLUTIONARY IMPERATIVE

David Lorimer

■ DIVINE INTERVENTION

Raymond JH Spencer

Self published, 2017,
927 pp., \$35.99, p/b
ISBN 9-780-473-365226.



Reading this massive and dense book is a daunting undertaking even for the most intrepid reader, especially given the growing demands on our attention and the opportunity cost in terms of time. However, the spiritual message of the book could not be more important or timely as it goes to the root of our malaise, spiritual ignorance and consequent destructive behaviour which we now realise has reached crisis proportions. In its detail and matter-of-fact exposition about spiritual matters, the book reminded me of Swedenborg, who documents a similar range of experiences and encounters. The first three parts are autobiographical, and include a graphic account of the author being involved in a mass shooting in 1997 and receiving a wound to the head, after which his conscious states changed and he seriously began the journey that resulted in this book, written, he assures us, with the help of spirit beings.

Part Four, extending over 500 pages, consists of diary events from a spiritual perspective, documenting the experiences of astral travel, dream visions, telepathy, clairvoyance, clairaudience and channelling, clairsentience, heightened senses and emotions, spirit produced sensations and telesthesia, intuitive insights, time and spatial displacement in terms of premonitions, retrocognition and precognition, visual apparitions, trance vision, encounters with dark energy, energy associated with colour and spiritual healing, the physical body energy system, the

relationship between brain and mind, energy system synchronisation, materialisation and dematerialisation, levitation, conscious states and universal time. All these experiences are tabulated and summarised in tables before a more detailed explanation; in addition, there are graphs and a systematic summary of events with chapter references. The bibliography is likewise tabulated in terms of subject matter. The text covers every conceivable conscious state as well as the underlying nature of reality and the purpose of life in evolving towards higher being aligned with universal principles.

Readers of this journal will have a particular interest in the relationship between mind and brain. For Spencer, the mind belongs to our spirit self, which it shares with the human self. When we pass over, 'the mind of our spirit self becomes that of us as a spirit', exactly as Swedenborg asserts. He explains that the mind is dominated by our human self in an awake state, while in trance it is dominated by our spirit self; and during NDEs the spirit self can monitor events and accurately report back. Shared mind is then defined as the mind of the spirit self being shared with the human self, but this sharing can also occur between humans, and between humans and spirit as well as with the universal mind. This scheme is also illustrated in a series of graphs detailing possible relationships between the mind of the spirit self and the human self as well as the extent of the shared mind (p. 699 and Graph 102). The author also discusses the operation of left and right brain hemispheres, brain vibrations related to trance state, separation of the brain and mind, and the nature of learning, thoughts and memory. He comments that the mind of the human self dominates in most academics, which means that the mind of the spirit self remains undeveloped. Then the universal mind functions as an akashic record of everything that has happened in this universe cycle. It is like a library full of books and constitutes the only true mind where 'all other minds of mortals are just shadows of it with varying degrees of intelligence and wisdom.' Genius, as Walter Russell also experienced, means tapping into and identifying with the knowledge and light of the universal mind. This exists at very many vibrational frequencies or levels of reality, which we may or may not be able to absorb and understand, depending on our own frequency, again as Swedenborg pointed out in his own language.

The last part charts our future path in life and how we need to live in accordance with the universal plan if we are to navigate a trajectory without

destroying ourselves. This means aligning ourselves with the direction of universal evolution towards higher being. This is explained in terms of a universal plan, universal truth, universal harmony, universal law, universal energy, universal force, universal mind and universal love. The summit or essence is called Celestial Being providing a blueprint through the Divine Being to evolve through a series of conscious states. Universal truth is a unified energy field of 'universal love, innocence, faith, harmony and wisdom' which we need to receive, understand and embody. This naturally entails harmony and collaboration in a universal law where we all share a love for one another and live consciously from this unified field. This is just what the great sages have always emphasised, but we are living this out only in pockets within the prevalence of a negative energy field dominated by fear and separation.

Needless to say, the author recommends that we urgently need to change our direction of travel to align ourselves with the universal evolutionary plan. Our spiritual journey 'is about putting ourselves second for the betterment of all and learning our lessons as humans on the path of making us a loving spirit able to live harmoniously with others.' (p. 829) This leads into a final visionary and indeed revolutionary section on human rights and goals. These seven rights are for individual spiritual development, loving leaders, a good environment for children to develop, also spiritually, for all forms of life to have the right to live, for laws which only prevent harm to others, and for recognised standards of morality. Each of these is specified with a series of more detailed rules and explanations. This would involve a completely different approach to education, focused as it currently is on intellectual development for employment purposes, to a worldview based on the existence of a spirit self related to the human self with access to higher guidance. Instead, we have a trajectory towards mechanisation rather than spiritualisation. The critical point is not simply to look at outer destruction and disintegration, but rather to address the root causes in our thinking and feeling, with commercialism giving way to service performed in love. Interestingly, with the author living in New Zealand, that country has with its prime minister Jacinda Ardern been a beacon of light following the recent terrorist attacks.

As I said at the outset, only the most intrepid reader will manage to wade through the whole book, even though it is packed with valuable insights. The author needs to distil its message into a shorter and more accessible form in order to reach a wider readership. He also needs to express some of the essential messages in video clip format if he is going to reach younger people. What he has to say is too important to remain only within the covers of his book.

Existing stock is out of print but revised edition due out June 2020 is offered to SMN members and friends at cost for postage and packaging from New Zealand (approx. £30). Those who would like a copy are advised to email their postal address to raymondspencer1966@gmail.com who will contact them after the revised edition is published.

HISTORY BECOMES SCIENCE

Alan Sanderson

■ THE SCIENCE OF SPIRIT POSSESSION (SECOND EDITION)

Terence Palmer (SMN)

Cambridge Scholars Publishing, 2019, 356 pp. £52.99
ISBN 978-1-4438-6810-5

Can titles be predictive? When Terence Palmer named his book, *The Science of Spirit Possession*, he had no doubts. In his hands spirit possession has been transformed from a frightening curiosity into a developing science. It has become part of his own transformation from conference organiser to healer, to student of psychology, mysticism and psychic history. Palmer is now an authority on spirit possession and a developer and teacher of a new method of spirit release. This book, now in its second edition, began as a PhD thesis on F.W.H. Myers. As I write, Palmer is in the USA, teaching his method of spirit release to an enthusiastic gathering. His transformation continues, as does the subject of spirit possession, now a developing science.

Myers' brilliant studies take pride of place in the book, and Palmer has focused particularly on those phenomena, such as telepathy, which have special significance for the mechanism of possession. Other aspects of Myers' work, while less significant,



are still discussed because they contribute to the larger picture.

In the Preface to this edition, Palmer makes several important points concerning the book's purpose:

1. "This is not a manual for student practitioners of spirit release therapy."
2. "The book is a study of the scientific framework that can accommodate spirit possession as a valid human experience, rather than as an outdated notion of supernatural beliefs."
3. "The ultimate objective of writing this book is to promote serious scientific work and experimentation in the alleviation of distress by the treatment of spirit attachment and possession disorders. It is therefore primarily for the research scientist and clinical practitioner with an interest in clinical trials and experiments that have yet to be conducted, in the difficult area of medicine and psychiatry."

The book is in three sections:

- I. Possession and Exorcism, Methods and Theories.
- II. Myers' Conceptual Framework.
- III. Myers and Modern Science.

Clearly Myers' genius has been the guiding inspiration for Palmer's book. Sad to say, although both Myers and his chief co-worker, Edmund Gurney, died 120 years ago, no one has followed their lead by using mesmerism, the forerunner of suggestive hypnosis, as their main research tool, to explore experimentally the basis of spirit activity. Palmer's focus on the creative research of these early researchers is most welcome.

In Section I, Possession and Exorcism, Methods and Theories, Palmer introduces the history and phenomenology of spirit possession and makes it clear that, despite the prevailing scepticism, it is a very real phenomenon. Three well-authenticated cases of demonic possession illustrate extreme possibilities, but Palmer makes it clear that contemporary cases, which he finds in therapy, though milder, are common and often disabling. There is a great need for spirit attachment to be recognised, researched and correctly treated.

In Section II, Myers' Conceptual Framework, Palmer sets out Myers' view that psychological research should focus far more on subjective awareness. He discusses multiplicity of personality and the views of

contemporaries, such as Pierre Janet, Carl Jung, William James, Morton Prince and Sigmund Freud, all of whom, except Freud, shared Myers' views. Ego states, were accepted then, as they are, in some quarters, today.

Palmer writes of Myers' interest in telepathic hypnosis, as studied and fully authenticated in France in the 1880s. This field cries out for revisiting. Had it not offered such a threat to materialist science, telepathic hypnosis would surely have been intensively re-explored. Palmer gives an aside on stage hypnotists who, he suggests, may in certain cases act as possessors of the volunteers. This is not just conjecture. Palmer has spoken to subjects whose observations support his views.

In a chapter on hallucinations Palmer constructs a table which shows Myers' and Gurney's carefully controlled experiments with hypnosis to study the transfer of taste between individuals. With some substances the results seem to have been highly significant. This work was done in a busy kitchen. Some will look on this as ridiculously amateurish. I see it as a laudable determination to enter untrodden ground with the intention of extending new thinking. These researchers financed their inspiration with their own time and money. It was the only way in those days and it gave a freedom which is lacking when we depend on committees to decide on what is ethically legitimate and deserving.

Chapter 9, Motor Automatism and the Mind-body Connection, gives examples of individuals with sudden unaccountable desires leading to unaccountable actions. With the numbers he encountered, Myers was not satisfied to dismiss them as coincidence. He asked, did these impulses originate in the sending or the receiving individual? To throw light on the question of foreign spiritual influences, he studied automatic writing to see whether or not it contained information which could not have been known to the writer.

This book is a feast for those who would explore the many fascinating questions which Palmer raises. For anyone who is interested in the concept of spirit possession, this book is strongly recommended. Psychiatrists and psychologists with an open mind on the matter would do well to read it. Therapists who require instruction on spirit release

should also read William Baldwin's *Spirit Release Therapy* (1995), I. Ireland-Frey's *Freeing the Captives* (1999) and Sue Allen's *Spirit Release -- A Practical Handbook* (2007).

I know of no other book on spirit possession which approaches this one in knowledge of the subject and in care and thoroughness of theoretical analysis. Terence Palmer is totally committed to his subject and is active in teaching new ways of spirit release. He demands and deserves our attention.

Alan Sanderson practised spirit release in the NHS. He is writing a book on survival for the general public.

ECOLOGY-FUTURES STUDIES

A GREEN NEW DEAL

David Lorimer

■ ON FIRE

Naomi Klein

Allen Lane, 2019, 309 pp., £20, h/b – ISBN 978-0-241-41072-1

Naomi Klein is an award-winning journalist and author of a number of bestselling books addressing some of our most pressing political and environmental challenges. I read this book on my trip to British Columbia, some of it on the boat to Mayne Island, where we passed a few sea otters and saw patches of virgin forest. However, on the main Vancouver Island, 91% of the ancient forest has been felled. Naomi herself recounts her holiday in the area in 2017 when fires were raging and smoke blotted out the blue sky that she and her family had been so looking forward to, illustrating only too graphically the picture she paints in this book. It consists of a collection of more than a decade of her impassioned reports, articles and speeches 'from the frontline of climate breakdown' and conveying a real sense of urgency and emergency.

As I write, only yesterday Greta Thunberg completed her Atlantic voyage back from the UN in New York. Although she is usually reported as calling for us to act on the science reported by the IPCC in relation to carbon emissions, her concerns are in



fact much wider. Specifically, she states that if the emissions have to stop, then we must stop the emissions, but she is well aware of the wider and unsustainable impact of humans on the environment, leading her to say that ‘once you’ve done your homework, you realise that we need new politics...a new economics, a whole new way of thinking.. we must stop competing with each other. We need to start cooperating and sharing the remaining resources of this planet in the fair way.’ Naomi has taken up her metaphor of the house being on fire, urging us to declare a planetary state of emergency and support the rapid introduction of a Green New Deal as a necessary and profound civilisational transformation or system change.

The need for a system change arises from the interlocking nature of the crises we face, but it can also be supported economically in terms of massive creation of new jobs. Colonisation was the first manifestation of globalisation as Western countries sought the equivalent of a spare planet to raise their own living standards by crushing and exploiting indigenous people (the anthropological section of the British Columbia Museum illustrates this only too poignantly, including the suppression of local languages and therefore cultures). Limitless consumption built into the philosophy of capitalist economic growth is directly related to the ‘ecological depletion at the heart of the climate crisis.’

In a chapter entitled Capitalism versus the Climate, Naomi reaches the heart of the issue. At the beginning of the chapter she states that ‘there is simply no way to square a belief system that vilifies collective action and venerates total market freedom with a problem that demands collective action on an unprecedented scale and a dramatic reining in of the market forces that created and are deepening that crisis.’ This goes back specifically to neoliberal economics and politics with the deregulation of the financial markets in the late 1980s encouraging casino capitalism and culminating inevitably in the crisis of 2008 with bailing out the banks and the severe fallout of austerity, itself related to the rise of the populism we see today. In the US, denial of human responsibility for climate change is linked to a right-wing free market politics and economics. These very people realise that the necessary action on climate and the environment more generally ‘can be done only by radically reordering our economic and political systems in ways antithetical to their free-market belief system.’ Naomi’s inconvenient truth is that they are not wrong - and that this accounts

for the strength of resistance and accusations that the Green New Deal is nothing less than redistributive eco-socialism. The premise of this free-market way of thinking is that nature is limitless, which we now realise is incorrect, whether applied to oceans, freshwater, topsoil or biodiversity: ‘the expansionist, extractive mindset that so long governed our relationship to nature is what the climate crisis calls into question so fundamentally.’ (p. 79) Hence the need for a new civilisational paradigm and the crisis in the idea of ‘progress’ embedded in our enlightenment outlook; hence also the resistance from ‘Heartlanders’ who oppose the real-world implications of dealing with environmental overload. The fundamental challenge, though, is that ‘climate change is a collective problem, and it demands collective action’, an unprecedented scale of international cooperation at a time when many countries are still intent on looking after their own narrow interests.

In this chapter, Naomi suggests six lines of policy: reviving and reinventing the public sphere, remembering how to plan, reining in corporations, re-localising production, ending the cult of shopping, and taxing the rich and filthy. Overconsumption based on an ideology of economic growth and continuously rising profits is at the root of our ecological crisis, leading to the dilemma identified by Tim Jackson that we need to ‘trash the system’ if we are not to ‘crash the planet’. At the very least, this entails the transformation of capitalism from a shareholder to a stakeholder model and radically redefining economic and well-being indicators. More far-reaching, as many ecological thinkers (including the Prince of Wales) have been arguing for decades, we need ‘an alternative worldview to rival the one at the heart of the ecological crisis – this time, one embedded in interdependence rather than hyper-individualism, reciprocity rather than dominance, and cooperation rather than hierarchy.’ (p. 98)

Naomi’s own proposals are articulated in The Leap Manifesto for climate justice based on an ethic and duty to care (and repair), not only for land, water and air, but also for one another; this means transforming the culture of taking and grabbing to one of giving. The Leap also implies that incrementalism and moderation are a huge problem in circumstances when a leap is required. The gap between what we are doing and what we need to do is simply too wide, which is why politicians are floundering in their efforts to shore up the current

system with a few green modifications and tweaks. There will also be mounting pressure from environmental migration, and we have already seen the impact on Europe of associated political migration (a severe drought exacerbated political tensions in Syria). Needless to say, The Leap has engendered fierce resistance from the current establishment, but this time we are slamming into hard ecological limits and there is no spare continent to use for parts - as I have pointed out in other reviews, Earth Overshoot Day now occurs at the end of July, meaning that we are using the renewable biomass of 1.4 planets as it is.

Reading this eloquent and widely informed book makes one realise that a Green New Deal representing deep system change is in fact a realistic necessity, but based on a longer term realism rather than the short-term expediency and immediacy dominating the current UK election campaign. It is only a matter of time before this becomes an evolutionary imperative. However, my argument would go further than ecological and political interdependence and interconnectedness, to the oneness of all life (it is easy to remain narrowly anthropocentric rather than biocentric) and to the oneness of consciousness as a spiritual underpinning. I believe that more and more people are getting a direct sense of this oneness and interconnectedness and realising its implications for how we arrange our affairs in relation to the whole of life. I discuss a parallel shift in my review of Riane Eisler and Douglas Fry’s book elsewhere in this issue, and I regard both books as essential reading for our time.

A PSYCHE-GAIA CONJECTURE

David Lorimer

GAIA, PSYCHE AND DEEP ECOLOGY: NAVIGATING CLIMATE CHANGE IN THE ANTHROPOCENE

Andrew Fellows (SMN)

Routledge, 2019, 232 pp., £34.99, p/b – ISBN 978-1-138-30050-7

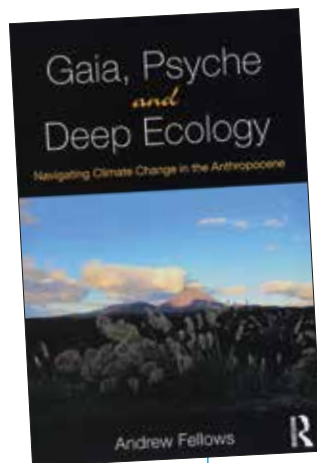
In this brilliant and perceptive interdisciplinary study, Andrew Fellows homes in on our spiritual crisis and environmental emergency, demonstrating the close connections between inner and outer and a critical correspondence between the dominance of the ego and our exploitation of nature. One of the first

scholars to note this connection was Seyyed Hossein Nasr in his book *Man and Nature* dating back to 1967 where he states: 'for a humanity turned towards outwardness by the very processes of modernisation, it is not so easy to see that the blight wrought upon the environment is in reality an externalisation of

the destitution of the inner state of the soul of that humanity whose actions are responsible for the ecological crisis.' However, Andrew brings further expertise to bear in his capacity as a Jungian analyst and specialist in renewable energy with a PhD in applied physics.

The book begins by setting out our environmental challenge, proposing that nothing less than a *metanoia* - 'a revolution in the way we understand our being in the world' - is a sufficient response, and that this, at the very least, demands an application of the precautionary principle that governments have applied in matters of defence but have not seen fit to extend to the environment as it would involve radically calling into question the whole philosophy of economic growth on which their political programmes are based. As Andrew points out, it is a textbook case of cognitive dissonance to demand both economic growth and ecological stability. This is where his approach comes in as we need to address the inner before our relationship to the outer can be transformed. From an interdisciplinary angle, this requires an understanding of Earth systems science and especially the properties of dynamical systems, analytical psychology with its emphasis on the interaction between conscious and unconscious processes, dual aspect monism building on Spinoza, Pauli and Jung, and David Bohm, evolutionary panentheism based on nonlocal mind, and deep ecology proposing a biocentric rather than an anthropocentric view. These elements are all fundamental to the argument, and none can be omitted. Readers will note that many other works have addressed these issues from a partial perspective, but none that I know are as integrated as set out here.

The argument moves through a series of chapters, beginning with an explanation of the Anthropocene summarising anthropogenic impacts, including the fact that the Atlantic current that warms Europe is at its



weakest for at least 1600 years. Andrew looks at climate change, population, human dominance and the prospect of a sixth mass extinction as well as analysing boundaries and risks across a number of systems. Crucially, the equation combining use of carbon, energy, economic output, and population shows all four factors continuing to increase, when they need to go down. He then gives a clear account of Gaia

Theory and the interaction between water and carbon cycles as it impacts on climate variability, quoting widely from the relevant literature and emphasising the systemic connection between organisms and their environment that requires a holistic understanding that goes beyond mechanistic reductionism. In this respect, Andrew quotes Michael Ruse in pointing out that allegiance to holism/emergentism in contrast to mechanism/reductionism is one that goes beyond reason and evidence, when in fact both approaches are required.

He then moves on to the background to our sense of disenchantment as 'a major driver of our rampant consumption, individualism and alienation from inner and outer nature' (p. 68) before introducing analytical psychology as an antidote to our fragmented materialistic worldview. He explains all its key elements in the context of individuation within the life-cycle that requires a change of orientation in midlife to move beyond the ego and its expansive desires. In this context he introduces dual aspect monism to counter the hegemony of physicalism, building in particular on the Pauli-Jung Conjecture and Bohm's implicate order. It is a subtle formulation that has been advanced in the work of Harald Atmanspacher which I heard presented at the consciousness conference in Interlaken, where I also met Andrew. He provides a very useful table comparing Bohm and Pauli-Jung (p. 108).

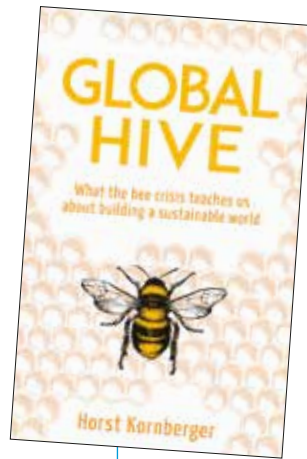
In the next chapter, Andrew introduces his original notion of a Psyche-Gaia Conjecture, building on the above parallels and bringing in the work of Brian Goodwin. He correlates the structure and dynamics of psyche and Gaia, quoting Jung to the effect that the severing of the mind from its primordial oneness with the universe has had both inner and outer ramifications. We have lost our roots, centre and sense of belonging, as I also highlighted in my review of Peter Kingsley's book

in the last issue. Andrew proposes a correspondence between 'ego dominance of the psyche and human dominance of the planet' based on what he calls 'over-rationality, one-sided will and a monotheism of consciousness leading to a loss of soul' (p. 136). From an evolutionary point of view, masculine heroic development has brought us to our current point, but has now become a planetary hazard since continued expansion of our impact is likely to lead to our own extinction, an odds-on consequence of business as usual without even considering the equally dangerous situation with respect to nuclear weapons. Andrew sees three forms of resistance at play in terms of hubris, nostalgia and inertia, this last involving manipulation and 'perception management' that also tells us what we want to hear, including the claim that markets can sort this out and that no fundamental course correction is required. He points out that technologies such as geoengineering and the ideology of transhumanism extend the hubris of human control and represent a further degree of disenchantment that we can no longer afford. We urgently need to move from an attitude of control and manipulation to one of partnership and harmony. All the greatest previous civilisations have declined and vanished - ours may well be no exception without a radical reorientation and *metanoia*.

The principles of deep ecology that he explains in some detail suggest the need for what he calls frugal individuation and a number of related practices. It turns out that the most significant way of reducing emissions is to have one less child, an observation that feeds into the equations mentioned above. He quotes Jeremy Narby's work on communicating with nature but also paying attention to dreams and synchronicities and therefore embracing the research findings indicating our embeddedness in a collective nonlocal mind. His revision of economics draws on the work of Schumacher, Tim Jackson and Kate Raworth, although he makes the wistful remark that 'most of the creative imagination is on one side of the divide, and all the established power on the other.' (p. 198)

The final chapter encourages us to question and act with courage in ways that recognise the interconnections and interdependence between Gaia and psyche, both individually and collectively. Andrew summarises the central components of a new world view, with which many readers will already be familiar. One can sense the rising feeling of inner tension and outer pressure as we peer with some

trepidation into the future, but we need to realise that the world as it currently is reflects our prevalent inner states, and that we can work towards co-creating a different future. For this, both inner and outer action and transformation are necessary. This remarkable book provides one of the best resources to help us in this crucial endeavour if we are to avert the magnitude of disasters that will simply force us to evolve new and more sustainable systems.



A COMPASSIONATE ECOLOGY

David Lorimer

■ GLOBAL HIVE

Horst Kornberger
Floris Books, 2019,
146 pp., £14.99, p/b –
ISBN 978-178250-569-3

If we have eyes to see, the multiple crises in the natural world mirror our overall relationship and its implications back to us as indicators. In this book it is bees and the lessons from colony collapse and - as the author felicitously puts it - the concomitant compassion collapse disorder requiring what he calls the choreography of care and a restoration of the imaginal (and therefore empathic) literacy. The essential message of this eloquent book identifies our mindset as the root of the problems we are creating. How do we look at and understand the world? Using a famous series of lectures by Rudolf Steiner as a marker, the author traces this instrumental and exploitative attitude so far as bees are concerned back to a magnified anatomical illustration by Francesco Stelluti in 1630, where separated limbs are also tellingly illustrated. This corresponds to the fashion for dissection and the predominance of what he calls the microscopic mind one-sidedly focusing on details at the expense of the whole.

When you put detached objectivity along with the profit motive of capitalism you get exploitation and indeed violation of species. The author comments that 'today, we know more about bees than any generation before us, yet we understand less about them than ever. As our eyes have been opened to detail, our minds have been blinded to the whole. (p. 31) As a result, we fail to grasp the implications of interfering with the social fabric represented by bee culture, using state-of-the-art inseminators including

microscopes and computer screens to fertilise the anaesthetised queen. This very image encapsulates the unfeeling, manipulative and detached mind, and on the Internet you can see disturbing pictures of the process with the queen bee surrounded by a sharp pointed instruments. The equally telling, as the purpose is to 'breed a better bee', in other words a more productive and profitable one, regardless of the overall effect on the hive and the ecosystem of bees, which were once considered sacred.

In a chapter entitled 'the logic of destruction' and considering the systemic immunological implications of the varroa mite, the author explains that the natural reaction of the scientific and engineering mindset taught in all universities is to go for chemical warfare or to engineer mite-resistant strains of super-bee. Using an analogous thought experiment involving catastrophic nuclear war, he illustrates the point by creating an assignment for students on the basis that bees are dying worldwide through the spread of a destructive mite, which is difficult to combat without harming bees and polluting honey. They are given three possible options: chemical control of all hives in apiaries, enforced artificial breeding of bee queens to ensure mite-resistant strains, and the genetic engineering of a more productive mite-resistant bee, which might not have a sting. These very options trap the mind in the limited presuppositions of objectified indifference, when the real solution is to develop a compassionate awareness that understands the role of competition within an overall collaborative system - this also applies to predator-prey and host-parasite relationships.

The microscope needs to be complemented by the macroscope while recognising the danger that a paradigm shift might 'change the products of the mind but not its way of production'. Hence, the author advocates 'a thorough paradigm metamorphosis, a change that transforms the way we perceive, investigate, cognise, feel and act. Otherwise the same mindset simply continues under a different guise.' (p. 61) A chapter on Goethe explains how he brought together head and heart, self and world, observer and observed, subject and object, knowing

and being in a dynamic understanding of the unfolding and enfolding life process, crucially by using his imaginative and contemplative faculties as organs of perception. Imagination is closely related to empathy and therefore to care and compassion. The author argues that 'compassionate ecology is a powerful remedy for the scientific detachment at the core of the environmental crisis.' (p. 81)

He develops a number of other useful metaphors: a comparison between bee frames and mind frames, rectangular boxes and thinking inside the box. The emphasis of Darwinism needs to be reframed away from competition towards cooperation, synergy and symbiosis. He encourages us to 'swarm our paradigms and restore the biodiversity of the global mind as a prerequisite to restoring the biodiversity of nature' (p. 105), reminding us that swarming is a form of rejuvenation that we also need to apply to our education system. We do not often stop to reflect on the pervasiveness of mechanistic metaphors such as genetic engineering and how they influence the way we think - machines cannot transform, only organisms can and in the case of humans, this requires imagination: 'we do not lack creative solutions, only the mindset to put them in place. The real scarcity is the scarcity of imagination and the paucity of paradigms' that could restore 'ecolibrum' represented in the image of the global hive of the title.

This is a brilliant and penetrating study of the impact of our manipulative and emotionally impoverished Western mindset - *homo scientificus-economicus* - and an urgent call to swarm our paradigms, pollinate the global mind and weave a new and compassionate 'eco-sphere of meaning.'

GENERAL

THE AGE OF IMITATION

David Lorimer

■ THE LIGHT THAT FAILED

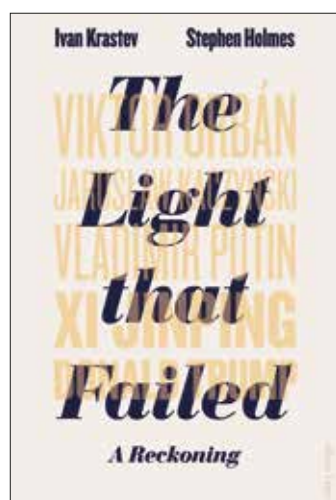
Ivan Krastev and Stephen Holmes
Allen Lane, 2019, 247 pp., £20,
h/b – ISBN 978-0-241-34570-2

Cast your mind back to 1989. In that year, I visited Bulgaria - still under Communist rule - for the first time and our friend had to check us in at the police station every two or three days; we were camping in the Rila mountains, and this took him half a day. Later that year, I was driving down to Cornwall to attend

a conference on Gaia and I heard on the radio that President Zhivkov had fallen, only a few days after the Berlin Wall came down. However, think back also to June 1989 and Tiananmen Square. The non-intervention reaction of the Soviets under Gorbachev was very different from China, and these differences are apparent in subsequent history. The confidence of Fukuyama with his rhetoric about the end of history has not turned out as he expected. This book is a collaboration by a Bulgarian political scientist and an American lawyer. It is a brilliant analysis of the rise of populism and as such essential reading to understand our current geopolitical scene.

The last 30 years have seen what they call the Age of Imitation – ‘a period of Western democratisation in which Eastern European values would be bent to the liberal fiscal, cultural and moral politics of integration.’ This concerned not only means but ends. After an introduction on imitation and its discontents, the three parts explain the copycat mind, imitation as retaliation in the case of Russia, and imitation as dispossession with China. One underlying initial trend in the 1990s was the abandonment of pluralism for hegemony by the United States with its self-definition as exceptional and its conception of the New World Order based on full-spectrum military dominance. However, it turned out to be difficult to maintain this position without an enemy, hence the war on terror following the 9/11 attacks (the new Pearl Harbour) in 2001 and engineered by powerful neoliberal influences. Here, the authors do not seem to realise the full strategic significance of these events given the inadequacy of the official account - I have discussed this in detail in other reviews in these pages.

In central and eastern European countries, the imposition of Western democracy and its liberal economic system failed to deliver on its promises after the initial euphoria of liberation. Global capitalism, Americanisation and EU directives tend towards uniformity and therefore represent an indirect attack on cultural heritage and identity – think of French gastronomy in relation to McDonald's. This cultural dispossession has been a powerful driver of renewed nationalism and populism following what many people saw as humiliation



factor was huge young professional emigration, as much as 20% in some countries, resulting in a lowering of skill levels and enhancing the ageing of population. All this has created the populist backlash represented by politicians like Viktor Orban, himself initially a liberal. This represents political psychology rather than political theory, and has been reinforced by the immigration crisis interpreted in terms of occupation (imposition of an economic system is also regarded as a kind of occupation).

The study now moves on to imitation as retaliation and revenge. There was an initial phase of simulating democracy then engineering of elections by Putin as a way of imposing his popularity. A third phase is a strategy of ‘selective mirroring or violent parody of Western foreign policy behaviour meant to expose the West’s relative weakness in the face of Kremlin aggression and to erode the normative foundations of the American-led liberal world order.’ (p. 79). A watershed in this respect was the incendiary and scathing speech given by Putin at the Munich Security conference in 2007. He exposed double standards in US foreign policy that thinks it can exceptionally meddle in the affairs of other people while this is not legitimate for any other state - Russian interference in the 2016 election needs to be understood in this light. And ‘what the West celebrated as popular democratic revolutions were simply Western sponsored *coups d’etat*.’ The most recent example has occurred within the last month. Ironically, Putin applied exactly the same arguments deployed by the West in relation to Kosovo to his own intervention in Crimea, with which he illustrates Western hypocrisy: ‘vaunted Western values, such as the self-determination of peoples, are simply Western interests in disguise.’

- Gorbachev has made this point about the Western treatment of Russia in the 1990s. Identity denial has ultimately resulted in identity politics with its reassertion. Universalism destroyed solidarity as well as the ethos of individual countries. Another significant

(p. 125) And ‘the primary objective of the Kremlin’s foreign policy today is to unmask the West’s purported universalism as a cover for the promotion of its narrow geopolitical interests.’ It is not hard to appreciate this point, and later in the book we see how some aspects of this have been renounced by Trump, whose tactics are perceptively analysed in some detail, as well as his admiration for non-democratic authoritarian leaders. Another interesting observation is that, for Trump, ‘every statement of fact dissolves into a declaration of membership or allegiance’ (p. 177) - so allegiance is primary rather than truth.

When we come to China, ‘the Chinese economic miracle has been a disaster for the United States’ (p. 159) in that the industrialisation of China is mirrored by the deindustrialisation of the US, exporting jobs in the process. Not only that, the Chinese have become adept at appropriating and developing US technological ideas and moving ahead economically. Advances in Chinese technology are reflected in its January 2019 soft lunar landing on the dark side, and we now know that space is being rapidly weaponised. Politically, the Chinese leadership closely studied the events of 1989 so far as the USSR was concerned. Repression and the non-import of Western values has enabled China to maintain its cultural identity and integrity while benefiting from economic growth and prioritising party over ideology. While Gorbachev socialism was morally unsalvageable, the Chinese abandoned the export of communist ideology while retaining the dominant role of the Party, now technologically reinforced by surveillance totalitarianism. The fact that the Chinese have maintained their cultural identity is a sharp contrast to the situation that evolved in central Europe as noted above. The Chinese leadership regards the West as degenerate and corrupting, and they have no intention of allowing their society to become Americanised.

The authors conclude by forecasting a pluralistic and competitive world ‘where no centres of military and economic power will strive to spread their system of values across the globe.’ (p. 205) I’m not so sure that the US will give up its striving for full spectrum military dominance so easily, but if they persist, they will come up against increasing resistance from Russia and China. However, our most pressing issues require building trust and collaboration, not only with respect to environmental challenges but also, as Gorbachev

pointed out recently, the need to denuclearise the world. Power politics is quite inadequate in this respect so we need to move towards a politics of systemic interconnectedness – what Riane Eisler (see below) calls a partnership rather than dominator society - that reflects the ecological reality of our planet.

THE REAL CULTURE WARS

David Lorimer

■ NURTURING OUR HUMANITY

Riane Eisler and Douglas P. Fry
Oxford, 2019, 369 pp., £22.99,
h/b – ISBN 978-1-19-093572-6

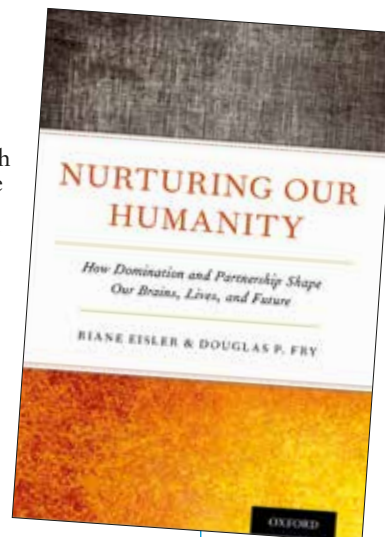
The central message of this hugely important and widely referenced book could not be more timely. It builds on Riane's earlier work on dominator and partnership societies going back over 30 years to the first publication of *The Chalice and the Blade*. The resurgence of authoritarian regimes is a regress to old dominator patterns at precisely the time when we need to be making a worldwide transition to humane partnership and repudiating the flawed ideology insisting that we are hardwired only for selfishness, violence and greed. The truth of the matter is that we are also hardwired for empathy, care and compassion and that our culture and upbringing fundamentally influence the relative predominance of one mode or the other. We can come to understand this more thoroughly through relational dynamics and by using what the book calls the Biocultural Partnership – Domination Lens as an analytical tool.

From an evolutionary point of view, books like *The Selfish Gene* support a deterministic view based on the dominator assumption and therefore have problems explaining altruism on the basis of their incomplete and one-sided approach. The evidence presented in this book demonstrates that we have 'also evolved powerful capacities, even proclivities, for empathy, equity, helping, caring, and various other prosocial acts.' (p. 28) Nor are these qualities extrinsic, but rather they are actually embedded in the brain's neurophysiology, as a chapter on this subject amply demonstrates. Young children who suffer from lack of love and abuse show that quality of nurturance directly affects the development of neural pathways in terms of feeling safe or threatened. This message is reinforced by recent findings in epigenetics and gene expression in relation to cultural and family conditions. As the authors point

out, 'families in domination systems typically are authoritarian and male-dominated and stressful and punitive childrearing', a state that can be tragically self-perpetuating. The fact that our brain is flexible means that there is a 'dynamic biocultural interaction between genes and experience in which culture, as well as our human capacity for creativity, must be taken into account' - as the work of the psychologist Paul Gilbert on compassion has also shown.

The chapter on the benefits of partnership and the costs of domination spells out the social consequences of both systems. Dominator systems are typified by top-down authoritarian rule in families and society more generally; subordination of women to men with corresponding valuing of stereotypically 'masculine' characteristics; a high degree of institutionalised violence maintained through fear and force; and a belief that domination rankings are natural and the use of violence to impose or maintain them is normal and moral (p. 282). In contrast, partnership societies are more democratic and egalitarian, they value men and women equally, embodying stereotypically 'feminine' characteristics of caring and nonviolence, promoting these in social life and relationships and maintaining that mutual respect and accountability are natural. The book gives a number of examples of societies on different parts of the dominator – partnership spectrum, with Nordic countries on the latter end and the Maasai warriors and the Taliban on the former. In this respect, it is interesting to reflect that the underlying problem in fundamentalism is in fact its dominator orientation, which one can also see reflected in conservative US politics. Dominator societies are also associated with the worst violence against children in terms of sexual abuse, child marriage, child sex trade and sexual slavery, female genital mutilation, forced child labour and violence against children in schools and homes.

After a chapter on the original partnership societies and a consideration that we can choose to contract or expand our social consciousness, there is a fascinating



discussion of touch, intimacy and sexuality in partnership and domination environments. In dominator systems, coercive and hurtful touch is associated with upbringing and sexual relations, reinforced in Christian history by negative attitudes towards women and the body. All this underlines the importance of making fundamental changes to gender

and parent-child relations. The authors also discuss the eroticisation of violence and the deadening of empathy, with a special note on the impact of digital media on touch, intimacy and sexuality. These models also have profound implications for socialisation and therefore emotional patterning; in particular, violence is integral to male socialisation in dominated societies where it is also considered necessary to maintain social order, a state of affairs that only serves to perpetuate warfare and terrorism.

Reading this book and adopting the Biocultural Domination – Partnership Lens makes one acutely aware of the fundamental significance of these patterns, and therefore how crucial and powerful our orientation and choices are. This also means realising the extent of our own cultural conditioning and assumptions about what is natural, as also reflected in our religious and scientific institutions. There is a strong cultural push towards partnership, but an equal reactionary resistance from the dominator institutions, reinforced by their outmoded conceptions of human nature. In the last chapter on a new beginning, the authors summarise their thesis and put forward four interrelated cornerstones: childhood and education, gender and equality, an economics of caring, and transformation of narratives and language, which also means a raising of awareness and a corresponding development of understanding. Adoption of a partnership orientation is also critical to the future of science and technology, which is currently dominated by a culturally inherited manipulator mentality, also present in our relationship with the natural world. I urge you to read this seminal cultural contribution for yourselves.

THE WANDERER AND HIS SHADOW

David Lorimer

■ HESSE

Gunnar Decker

Harvard, 2018, 791 pp., \$39.95,
h/b – ISBN 978-0-67473788-4

It was Colin Wilson's *Outsider* that first put me onto Hermann Hesse – I read most of his famous novels, and in the 1980s while teaching at Winchester College I would set one of his books a year in my general studies class: *The Prodigy, Demian, Steppenwolf, Siddhartha or Narziss and Goldmund*. My aim was to promote a degree of self-awareness at this crucial stage of adolescent development, and the first two books spoke particularly to that, the first being based on high parental expectations from a gifted young man, a situation in which many pupils found themselves; the second was more about the development of spiritual awareness, but also with respect to light and dark, good and evil.

This magisterial biography draws on new sources, including recently discovered correspondence between Hesse and his analyst Josef Lang. His output includes 20 volumes of collected works, but also 44,000 letters, most of them as yet unedited. Hesse's poem *Steps* symbolises his life and metamorphosis:

*Just as every blossom fades
and all youth yields to old age,
so every stage of life, each flower of
wisdom
and every virtue reaches its prime and
cannot last forever.
Whenever life calls, the heart must be
ready to leave
and make a fresh start and to enter
bravely
into different and new liaisons.
And a magic inhabits every new
beginning,
protecting us and helping us to live.*

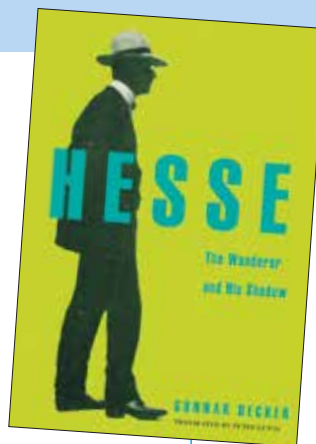
Here one can see the Wanderer represented as well as the call for renewal, often precipitated by inner tension that can also arise due to outer pressures, for instance in the stifling pietism of his parents confronted with his independent and rebellious spirit - he saw himself as a writer from a very early age, and this gave him a real sense of being alive. One of his great inspirations was Goethe, with his view of nature as a living entity and his understanding of transformative processes; these also occur in Goethe's life (for instance the Italian journey, which Hesse also made) and are reflected in the poem above. Hesse also admired how Goethe integrated different aspects of his personality within himself,

most dramatically represented in Faust – 'the cultivation of mutually opposing forces became for Hesse the ideal for his own passage through life.' He also admired Goethe's transcendence of nationalism.

Goethe succeeded in integrating mutually opposing forces to a greater extent than Hesse, especially in his relations with women and attitude to his body and sexuality. For Hesse, this never quite comes together and is represented in the contrast between the ascetic Narziss and the sensual Goldmund, even though they are the closest of friends.

The outbreak of the First World War and the publication during the conflict of Oswald Spengler's *Decline of the West* raised profound questions about values and spirituality as expressed in European culture. This brings in themes from his masterpiece *The Glass Bead Game* about what the spirit can do to counteract naked force and how the individual intellectual can survive in a world devoid of spirituality. Hesse became increasingly critical of German nationalists, who also turned against him with his more universal outlook. His concern was that war destroys the soul and reduces people to friends or foes. Hesse's meeting Josef Lang in 1916 was an important turning point, partly because of the latter's interest in Gnosticism, but also therapeutically. His novel inspired by the dualism of Gnosticism, *Demian*, came out in 1919.

Although he had a deep interest in Taoism and harmony with nature, Hesse chose to portray aspects of the spiritual quest or pilgrimage for the Self through the Indian figure of Siddhartha. The European context, however, was 'that of an intellectual and spiritual reorientation following the complete collapse of the old system of values.' (p. 426) The author points out that Siddhartha is also about the recovery of individual experience in place of external knowledge as well as 'an attempt to synthesise Eastern and Western thinking, as represented by Buddha and Heraclitus' - the river and ferryman play an important role. At this distance, the hostile reaction on the book's publication takes one aback - critics felt a lack of sympathetic identification with the conditions in post-war Germany. His point, though, is different: 'we desire to have something given to us from outside that we can only attain within ourselves, through our own



dedication' - we have to impart meaning to our own lives.

The author identifies common spiritual themes that bonded Hesse with Hugo Ball and Emmy Hemmings in 1920: 'the demonic and exorcism; libidinous urges and asceticism; the sacred and the increasing banality of mass culture; the task of the intellectual between

social criticism and the timeless evocation of meaningfulness; the monastic life, religion and atheism; the role played by sacrifice for faith; guilt and atonement; the creation of heretics by institutions; the neuroses of modern humans; pantheism and mysticism.' (pp. 477-8) These themes reappear in his later work and in his struggle with the disintegration of the spirit and the senses.

In the end, it seems that Hesse achieved a degree of inner peace, partly by guarding his solitude and avoiding public events, including the receipt of the Nobel Prize for Literature in 1946. The last chapter is entitled *The Old Man of the Mountains*. A sign in his window carried the following message: 'By the time a person has grown old and has done his bit, he is entitled to acquaint himself with death in peace and quiet. He doesn't need people. He knows them well, and he's had enough of them. What he needs is peace. It's not very seemly to come calling on such a person and pester him with chit-chat. Better just to walk on past his house like it belongs to nobody.'

His daily routine in the last few months included passing an acacia tree where he would always pull with all his might on a dead branch, remarking "It's still holding." His final poem, *Creaking of a Bent Branch* reflects this sentiment:

*A splintered, bent branch,
Hanging there for years on end,
Creaking its song dryly in the wind,
Bereft of leaf and bark,
Bare, bleached and tired of living
Too long or taking too long to die.
Its song sounds harsh and dogged,
It sounds defiant and secretly scared
Just last one more summer
Just one more winter through.*

It seems appropriate to finish with the last verse of *Steps*:

*Maybe death's hour too will send this
out newborn
towards new realms,
Life's call to us will never end..
Come then, my heart, take your leave
and fare you well!*



David Lorimer

Note: many of these books are now available in downloadable electronic form

Books in Brief

SCIENCE/ PHILOSOPHY OF SCIENCE

■ Why Trust Science?

Naomi Oreskes

Princeton 2019, 352 pp., £22, h/b.

This book is the sequel to *Merchants of Doubt*, the author's study of the influence of the fossil fuel industry on the climate debate. The decline of trust in science is one aspect of a much wider social issue, and the author gives a detailed survey of various perspectives from history and philosophy of science including many of the best-known names in the field. Her basic answer to the question posed by the title is that science is fundamentally collective and consensual with rigorous processes of vetting and peer review within various scientific communities whereby 'in diversity there is epistemic strength' warranting the placing of informed trust with respect, for instance, to climate change and the safety of vaccinations. The author analyses five examples of science gone awry, including rejection of continental drift, eugenics and the debate over the efficacy of dental floss. She discusses the production of reliable knowledge in terms of consensus, method, evidence, values and humility, concluding that science is a form of Pascal's Wager even with consensus among the community of qualified experts.

There follows a series of four essays on a variety of themes, with a response from the author. Marc Lange notes the circularity in science trying to vindicate itself, as it necessarily rests on certain philosophical assumptions, including ideas of what is possible and impossible. One of the 'impossibilities' for a science based on strict materialism is the existence of psi, and Jon Krosnick comments on the firestorm generated by the publication of Daryl Bem's paper on pre-sponse (precognition) because 'the results seemed implausible from the start and could not be reproduced.' (p. 203) Implausibility is in fact a function of prior assumptions rather than a scientific category. Only a couple of

days ago, I received an email from Dean Radin saying that Bem had in fact produced a meta-analysis covering 90 replications of his experiment: 'Bem told me that he submitted that meta-analysis to every journal that he had regularly published in over his 50-year academic career, and not one of those journals would accept it. The woo-woo-taboo is so strong in academia that it is virtually impossible for an editor of a top-tier journal to publish an article with positive psi results. By contrast, articles reporting null results in psi experiments are easily published. Paradigms die hard.'

Commenting on this example by Krosnick, the author maintains that the firestorm illustrates science working as it should, given that a paper was published that made a 'strong, surprising, and implausible claim. Immediately it received tough critical scrutiny, and the psychology community rejected it...the fact that it was published in the first place is evidence that the scientific community has remained open, even to ideas that some of us think should be closed down.' (p. 231) This is exactly the point – Bem was closed down and of course the author did not know about the replications of the study and the impossibility of publishing results in a respected journal. You can read the paper at <https://f1000research.com/articles/4-1188>. Later, she does note that the peer review process is a highly imperfect and that bad and biased papers do get published, but she seems unaware of the strength of the taboo explained above. Interestingly, there is no discussion of the debates around homeopathy and complementary medicine, which also reflect a divergence of worldview between reductionism and holism. And, parallel to the profile of the climate issue, a large community of scientists is concerned about the roll-out of 5G, but governments and businesses, intent on making as much money as possible, ignore the risks and refuse to undertake any prior research on safety. Even if there is a widespread scientific consensus, we should still scrutinise the underlying assumptions embodied and remain aware of social pressures to conform to orthodoxy.

■ On Trial for Reason

Maurice A. Finochchiaro

Oxford 2019, 289 pp., £25, h/b.

This authoritative book about science, religion and culture is by specialist who has devoted a great deal of time to studying the scientific revolution and lecturing in particular on Galileo. The title is somewhat misleading in the light of the author's own thesis about the nature of rationality, scientific method and critical thinking in the context of methodology and epistemology. As he himself maintains, geocentric and geostatic views that we now know to be wrong seemed reasonable at the time and were defended by a variety of rational arguments; indeed, reasonable and rational people were wrong about the nature of the solar system for hundreds of years. The reality of Galileo's trial is more complex than the simple dichotomy of scientific truth versus religious dogma, as this very informative and detailed account demonstrates. It takes the reader through the whole controversy originating around the work of Copernicus through Galileo's earlier and later encounters with the Inquisition and their 'vehement suspicion of heresy', moving on to the history of Galileo as a cultural icon and more general considerations about science and religion and the nature of critical thinking.

It soon becomes apparent that the episode is more than an intellectual affair: 'besides the scientific, astronomical, physical, cosmological, epistemological, methodological, theological, hermeneutical, and philosophical issues, and besides the arguments pro and con, there were legal, political, social, economic, personal and psychological factors involved' as this study amply demonstrates. It is fascinating to read about the contemporary counter-arguments and counter-evidence against Copernicus's hypothesis. It is clear that the development of Galileo's telescope and his empirical findings at 30X magnitude when only 3-4X had been previously available was decisive in the development of his views. The question of authority – both scientific and scriptural - plays a key role, and there was by no means unanimity on this within the Church itself.

The author makes a telling distinction between surface and deep structures in his later analysis. On the surface, the conflict might seem to be one of Copernicus versus Scripture or science versus religion, but at a deeper level he suggests that the conflict is between innovation and conservatism, which is true even in science today; then also between facts and myths or stories

arising around these facts. There is a chapter on Galileo as a model critical thinker - one of the tactics he used was to formulate arguments against his own position only to demolish them, as in his *Dialogue on the Two World Systems*, which precipitated his second encounter with the Inquisition. The author analyses the nature of reasoning and the various meanings of criticism as negative evaluation demonstrating the principle of fallibility, reflection and evaluation. He also highlights open-mindedness, judiciousness and fair-mindedness, concluding that Galileo was indeed a model of critical reasoning. These qualities also apply to the book as a whole, which can be highly recommended as a nuanced study of this famous episode.

■ The Origin of Life Patterns in the Natural Inclusion of Space in Flux

Alan Rayner

Springer 2017, 108 pp., €58, e-book €44, p/b.

This book is an invitation to think about life and space in a new way, shifting from abstraction, autonomy and mutual exclusion to 'natural inclusion as the mutual inclusion of receptive space and informative flux in all distinguishable natural occurrences... energy and space combine into local material bodies as flow forms...' Hence there is the receptive presence of space and the informative presence of embodiment. Although he is not mentioned in the text, Alan's approach has much in common with that of Goethe where contemplation represents engagement and observation detachment. There are six short chapters and an epilogue, each with an abstract, while the text is interspersed with the author's own poetry, paintings and descriptions of nature in his capacity as president of the Bath Natural History Society. His early experiences in Africa gave him his first taste of inclusion and neighbourhood, so that the atomistic Western worldview came as a culture shock.

Alan aims to understand pattern, process and relationship in the natural world, evoking this sensually in his textured and intimate description and photos of a natural history outing. He contrasts the geometry of the circle - these spherical one - with that of the square, noting that 'all natural form is a product of space and flux, not rigidly definable structure - matter cannot be dissociated from space.' We see the curved movement of the circle in continuities of spirals, ripples and rivers in flow networks: nothing is truly independent, all life exists in continuous dynamic relationship

and attunement. Correspondingly, individuality is not self-contained, but rather 'enssembled', a natural inclusion of neighbourhood - hence the idea of place-time rather than space-time. This engages the feelings, in stark contrast to Darwin's recommendation that a scientific man should have no wishes or affections - 'a mere heart of stone.'

Alan argues that 'organisms are better understood as embodied water flows in mutual relationship with one another than as genetically controlled machines.' (p. 67) Reading this book reformats one's focus and categories to put natural inclusion in the foreground and it highlights the centrality of diversity at all levels; one also acquires a new understanding of death as part of the natural continuity and evolution of life. The final chapter explains the influence of core beliefs and perceptions on human cultural diversity and governments where 'abstract logic and language reinforces beliefs in independent self- and group-identities, external authority, competitive success, strength as good, weakness as bad, money as wealth, time as an external occurrence, unity as an antidote to division and death as finality.' (p. 87) Instead, we arrive at mutually inclusive relationship and dynamic balance as fundamental. The importance of this book lies in its articulation of the necessary shift of metaphor and ways of thinking that is in fact vital to creating a sustainable future.

■ The Waterside Ape

Peter Rys-Evans

CRC Press 2019, 226 pp., £17.59, p/b.

The Oxford marine biologist Sir Alister Hardy first proposed the aquatic ape theory in 1960 as a challenge to the orthodox savannah scenario of human evolution in answering certain and topical questions. Elaine Morgan followed this up with her book *The Descent of Woman*, while Sir David Attenborough has presented two series on the idea, which remains controversial in the mainstream. However, it looks to the impartial observer as if the savannah theoreticians are defending their turf and failing to address the questions raised by the alternative view, preferring instead rhetorical devices and accusations of pseudoscience. Writing as an ENT surgeon and therefore with a background in human anatomy, the author presents a lucid exposition of human evolution as a whole, with an intermediate semi-aquatic phase, while identifying special features of the 'waterside ape'

in terms of bipedalism, hairlessness, subcutaneous fat, thermoregulation and the size of our brains that are best explained through an affinity with aquatic habitats. Along with this are other anatomical features in terms of the head, neck, sinus and ear structures that distinguish us from our closest 'savannah apes.' Contrary to orthodox arguments, there is also fossil evidence in terms of 'abundant bony remnants of aquatic foods.' The author argues - validly it seems to me - that savannah theorists have no answer to the developmental questions he raises. The book deserves a wide readership among specialists and non-specialists alike.

■ The Crowd and the Cosmos

Chris Lintott

Oxford 2019, 265 pp., £20, h/b.

Chris Lintott is a professor of astrophysics at Oxford, co-presenter of the BBC's *Sky at Night* and the principal investigator of the Zooniverse (www.zooniverse.org), an online platform for citizen science and people powered research with hundreds of thousands of contributors from around the world. This highly readable book is partly autobiographical but also deals with how science is done, especially at a time of advances in machine learning resulting in what he calls a data deluge, a phenomenon that also applies to CERN and penguinologists using automated cameras. He gives some interesting examples from the 19th century of pioneers in citizen science such as the astronomer James Glaisher and the meteorologist George Symons. Modern computing and distributed data open up citizen science on an unprecedented scale and have resulted in some serendipitous discoveries. The future is by no means exclusively one of the machine learning, since the human intuitive capacity for pattern recognition remains vital.

■ Nano Comes to Life

Sonia Contera

Princeton 2019, 216 pp., £20, h/b.

The author is professor of biological physics at Oxford and one of the leading researchers as well as communicators in the nanotech field. This is a readable although necessarily technical introduction to the way that physics is coming to biology and in particular the 'convergence of nanotechnology, electronics, physics, mathematical modelling, artificial intelligence, material science and biology' in their application to medicines and drug delivery systems. Although complexity is now coming to the forefront, it is striking how much of the metaphorical language

still uses terms such as manipulating the building blocks of life, control, engineering and nanoscale machines. However, new metaphors are emerging to characterise the 'symphonic interplay between genes, cells, organs, body and environment.' The chapters cover the introduction of the nanoscale into biology, protein nanotechnology, nano in medicine, including developments related to overcoming antibiotic resistance and enhancement of cancer immunotherapy by targeting the interior of the cell, and finally recreating tissues and organs.

The author is very aware of the context of her work, and emphasises the importance of fairness and equality in applications of this new technology, especially in personalised medicine. She is also sensitive to the illusion of complete power over nature within a model entailing the commodification of nature, whereby 'our bodies and minds are the next frontier for economic exploitation.' This means that 'we need to confront our adolescent use of technology, and grow into new social and economic systems that empower us to deepen the meaning of our existence.' (p. 170) In her epilogue, the author discusses widespread fear of disruptive technology and the need to create visions of positive technological futures, giving interesting examples from Japan, and holding out the possibility of creating cultures that can 'nurture our technological maturity' and engage the arts and the humanities at the same time. An informative, thoughtful and measured contribution.

MEDICINE/HEALTH

■ The Infection Game

Dr Sarah Myhill and Craig Robinson

Hammersmith Books 2019, 252 pp., £15.99, p/b.

Subtitled 'life is an arms race', this latest book by Sarah Myhill contains a wealth of practical information that can be applied by readers. Her background is the naturopathic paleo-ketogenic approach that forms the basis of her starting point and key strategies for defence and counter-attack against our natural enemies called Groundhog Basic, Acute and Chronic. The book explains that we are already losing the arms race in terms of infections leading to inflammation that drive modern Western diseases and a decline in immune function. Hence the starting point is to improve our defences with diet, micronutrients and sleep as well as specific interventions such as Vitamin C and iodine. There is an extensive section on how to treat

acute infections that have got past our defences, and how to diagnose and treat chronic infections. As we age, our toxic load is liable to increase and chronic conditions correspondingly emerge. The book is both detailed and highly informative, and as such should be on every family bookshelf with basic principles that can be applied as well as recommendations for common conditions.

■ A User's Manual for the Human Body

Alex Wu

Hammersmith Books 2019, 128 pp., £3.99, p/b.

This is the best book I know for clearly explaining the philosophy of traditional Chinese medicine and its contrast with the Western approach. The author came to these realisations through his own chronic ill-health brought about by stress and modern lifestyle and the threat of spending the rest of his life on medication. The key insight is that symptoms such as inflammation may well be an important part of the body's self-healing process and should not necessarily be suppressed by Western countermeasures (the phrase antibiotic is significant in this respect). The Chinese approach respects the body's system of maintenance and healing, while Western medicine looks at the same process as a mistake requiring correction. Various chapters deal with levels of body energy and how to maintain this, the importance of nutrients and sleep, and the logic of self-healing. The author discusses various specific conditions, and in my own case of skin inflammation, I found that combining acupuncture with iodine ointment (see review above) had a dramatic effect and gave me a personal insight into the operation of these principles. In addition, my bodily type requires maintenance of warmth, so I have had to suspend temporarily my morning dips in the river and make sure of eating plenty of warm porridge and soup! Both these books are highly recommended.

■ The Patient Revolution

David Gilbert

Jessica Kingsley 2019, 271 pp., £14.99, p/b.

I imagine that many readers have had the experience of making their own diagnosis based on information on the Internet, which is part of patient empowerment so that people can arrive better informed at their doctor's appointment. This book goes further by sharing the stories of 13 'patient leaders' who have drawn on their own experience to impact the National

Health Service with its procedures, protocols and the general assumption that professionals know best and that change must come from the top down. In many cases, the patients have really been through the hoops and have shown immense resilience to come out the other side. What emerges is a model of partnership, advocacy and engagement, humanising institutions operating impersonally by the book. Sometimes this involves a process of infiltration but more often sheer persistence in the face of resistance and inertia. The book is encouraging in reporting progress the establishment of a Centre for Patient Leadership supported by a group of Patient and Carer Partners. This approach certainly has a role to play in healing the healthcare system and inspiring readers with its stories.

■ The Power of Vital Force

Rajshree Patel

Hay House 2019, 275 pp., \$25.99, h/b.

With a background as a criminal lawyer, the author has spent the last 30 years helping build up an international network of 600 meditation Art of Living centres representing Sri Sri Ravi Shankar after attending one of his meetings when she had been expecting a sitar concert by the musician of the same name. The vital force of the title is life energy, prana or qi, which is a critical component for optimal functioning - we all know what it is like to be in a state of low energy with its accompanying effects on our mind and emotions. The book draws on ancient Vedic breathing and meditation techniques as a means of harnessing physical and mental energy and avoiding the draining effects of negative thoughts and emotions. Readers are invited to conduct a review of their main current preoccupations in order to assess whether these are associated with positive or negative feelings and are prompted to live fully in the present without past and future intruding. The kind of meditation recommended is a restful alertness in the depths, with specific breathing techniques beforehand. This involves loosening rather than maintaining one's focus. We also use up a lot of energy in resistance and cravings, which sabotage the smooth running of our overall operating system and entry into a nondual flow state of active acceptance. As a whole, the book provides great deal of accessible practical guidance based on centuries of spiritual experience.

■ Shattered Dreams

Compiled by Christina England

Self published 2019, 693 pp., no price given.

Subtitled 'The HPV Vaccine Exposed', this book is a massive collaborative effort on behalf of parents and children who have suffered serious 'side' effects from the HPV vaccine, which is being given to 3 million young women in the UK since its introduction in 2006. It contains extensive contributions from 13 professionals covering over 400 pages. The book quotes WHO figures documenting nearly 85,000 reports of adverse reactions, mainly nervous system disorders, but also circulatory problems, seizures, syncope and even 400 deaths. Using the book's own statistics, it seems that these adverse reactions affect around 1 in 1000 young women (however, the FDA estimates that only 5% of vaccine reactions are actually reported), but this is part of a larger commercial story within the pharmaceutical industry where vaccines are worth \$60 billion a year. In this respect, there is a revealing foreword by a former Merck sales executive with the familiar story of the drive for profit and the huge social pressure to vaccinate.

One of the most interesting general points that applies to all vaccines the role of toxic adjuvants like aluminium (Gardasil 9, the new version, contains more aluminium than any other vaccine). Aluminium boosts the immune response due to its toxicity at the injection site, but it seems that this may also switch on allergic reactions (p. 558) and is very likely to be implicated in adverse reactions to other vaccines. Moreover, most vaccinations are administered by injections, 'which bypass the body's natural defences and allow virus and bacteria access to otherwise protected tissues' including the immune system and the brain. One contribution puts the matter very directly by stating that 'healthy people are not vaccinated against a disease, they are injected with a disease.' (p. 623) Throughout the book, questions of safety and effectiveness are raised, as they have been for vaccines more generally in this very contested field. The book does a very good job of putting the issues on the table and will be a great support and resource for parents whose children have been adversely affected by vaccinations.

PHILOSOPHY/ SPIRITUALITY

■ Our Great Purpose – Adam Smith on Living a Better Life

Ryan Patrick Hanley

Princeton 2019, 156 pp., £13.99, h/b.

Adam Smith is better known for his book *Wealth of Nations*, but here the author reminds us of the importance of his other key work, *Theory of Moral Sentiments* and his interest in how to live a good and reflective life, evoking both wisdom and virtue. There are 39 short chapters, each of which begins with 'On' - On Caring for Others, On Imagination, On Friendship, On Loving, On Flourishing, On Humility and Beneficence, then, at the end On Socrates, Jesus, Hume and God. At the beginning there is a quote, which the author then compresses to a maxim. I liked Smith's notion of tranquil enjoyment, especially applied to friendship and reciprocity in terms of mutual love and affection. He speaks of flourishing rather than just subsisting, adding that the best life - that of a wise and virtuous person - is good for both self and others and dedicated to bettering the condition of others. This leads to Smith's paradox, going beyond *Wealth of Nations*: 'by sacrificing our interests we realise a deeper self-interest.' Smith himself adds that 'the man who acts solely from a regard to what is right and fit to be done...acts from the most sublime and godlike motive which human nature is even capable of conceiving.' In this regard, the nobility of self-command in both Socrates and Hume is inspiring as examples of wisdom informing virtue and the shaping of 'an excellent and praiseworthy character.' These perennial themes have lost none of their relevance, making the book an essential text of practical wisdom.

■ Are We Bodies or Souls?

Richard Swinburne FBA

Oxford 2019, 187 pp., £14.99, p/b.

In this rigorous and carefully argued book, Richard Swinburne defends the unfashionable position of substance dualism against physicalism, asking what makes us who we are as humans: 'as conscious rational agents, we are beings of a very different kind from inanimate physical substances.' What is at stake is the nature of personal identity, whether complex or simple, which Swinburne maintains constitutes the soul. However, the soul is postulated to come into existence around the seventh month of pregnancy and is sustained by the brain. The second comparative

chapter gives some brilliant philosophical definitions of key terms including the sophisticated notion of supervenience frequently deployed by physicalists; the author distinguishes sharply between mental and physical properties, arguing for causal efficacy of mental events, including thoughts, beliefs, intentions and desires - he calls these 'propositional events' as they can be expressed in a sentence.

Amending Descartes, the author argues that it is logically possible that we can exist without a body or brain as an indivisible soul (p. 72). Here he runs into a perennial limitation in Western (non-esoteric) philosophy, namely the absence of any idea of a subtle body, hence the stark distinction between the physical body and a postulated bodiless state. His chapter on the interaction of souls and bodies makes no reference to the work of Popper and Eccles (Swedenborg also wrote about this from personal experience) where Eccles in particular proposed neural mechanisms for interaction. He has a useful discussion on the nature of belief, and his notion of testimonial belief in relation to the principle of credulity in the absence of counter-evidence is very serviceable. Rational testimonial belief relates particularly to reports of exceptional experiences that challenge the causal closure of the physical. The final chapter asks if science could explain souls, also when the soul ceases to exist. The author himself states that 'there is no reason to suppose that the human exists when the brain shows no evidence of (being conscious) - some of these arguments are elaborated with respect to cryonics.

I was quite taken aback to read that 'there would be such evidence for the continuing existence of a soul after death if it was a common occurrence for young children to apparently remember in much detail the life of some earlier person, now dead; and for those a-memories to be accurate memories of what that earlier person did and (as far as we can judge) experienced.' Swinburne makes no reference to, and is apparently unacquainted with, the massive database of exactly such cases accumulated at the University of Virginia by Ian Stevenson. He does refer to claims by Eastern religions, but as many readers will know, Stevenson's approach is rigorously empirical and does not easily draw the reincarnation conclusion. All this demonstrates the narrowness of the evidence base used in conventional philosophy and how their approach to memory and the brain might be enhanced by study not only of this material, but also of the very considerable

literature pointing to survival of the personality, none of which is mentioned here either. (In recent times, the only really prominent philosophers to take survival evidence seriously were H.H. Price and C.D. Broad, both of whom were Presidents of the Society for Psychical Research. It would be interesting to see what the author would make of this evidence, although he would be going into risky territory as the topic is not academically respectable due to the limitations of the prevailing physicalist worldview that he criticises. However, this is an illuminating book as far as its argument goes.

■ Twelve Ways of Seeing the World

Mario Betti

Hawthorn Press 2019, 224 pp., £20, p/b.

Subtitled 'philosophies and archetypal worldviews for understanding human consciousness', this significant book makes an important contribution to the debate around the topic. It stems from the work of Goethe and Steiner while including a galaxy of other thinkers during the course of its very helpful analysis. Steiner was the first to delimit this twelvefold character consisting of phenomenism, sensualism, materialism, mathematism, rationalism, idealism, psychism, pneumatism, 'spiritualism', monadism, dynamism and realism. Readers will note the invention of new terms, and each is discussed in detail in separate chapters that nevertheless make connections between the various approaches. The picture that emerges is one of harmony and complementarity - problems arise when one approach claims to be complete in itself as many scientists strive to reduce everything to the principle of matter through materialism. The author explains that the first three emerge from the senses, the next three from thought, while psychism, pneumatism and 'spiritualism' (in quotes with a redefined meaning) emerge from the depths of the soul.

If psychism focuses on sense of I, pneumatism, corresponding to gnosis, asserts that I Am the Universe. These paths are illustrated with quotations from Marcus Aurelius, Hildegard von Bingen, Kierkegaard, Goethe, Husserl and Jung, where the smaller I becomes one with the greater I. Pneumatism brings in an understanding of love, with quotations from Al-Ghazzali, Jacques Lusseyran and, inspiringly, the autobiography of Anwar Sadat, the president of Egypt who received the Nobel Peace Prize in 1978 and was subsequently assassinated. The

author sees these phases as part of our current evolutionary development. The final chapter brings things together in the image of Humanus, the new human being envisaged by Goethe but now under threat from developments in biotechnology reducing consciousness and cognition to information processing. If culture is based on freedom and the self creation of human modes of being, then we need to take this task very seriously in prioritising conscious inner development and widening our view to recognise the harmonious interplay between the 12 world views set out in this book. As Schweitzer once said, our task is to become more finely and deeply human by developing truth, freedom and love.

■ The Thirteenth Disciple

Edmund Wigram

Balboa Press (Hay House) 2019, 327 pp., \$21.99, p/b.

Also available at www.learn-to-be-love.com/the-thirteenth-disciple

I met the author again after many years at our Cascadia conference in British Columbia at the end of September. There, he told the gripping story of how he came to write this profound account of the ministry of Jesus based on accessing memories through the eyes of his brother Thomas, who looked after him on his travels. Over a period of months, he was able to access vivid far memories that really conjure up the landscape and ambiance of that era. In that sense, the narrative is strong and carries conviction, especially at a spiritual level of the inner teachings given to Jesus's closest disciples. One key is what author calls the cycle of gratitude and love, where each feeds on the other; this is put in context with an account of experiential exercises readers can also try for themselves. The message is one of love: 'love is everything. Without love there is no life. Life comes from love. From dust we all came, with the breath of God to make us live. To dust we return, and the spirit of God that is in us returns to God, taking only love. All the love that we have become is what we take back to God.' (p. 17) Our task is therefore to become love. We need to breathe in love and see with love.

Another important teaching is the balance of opposites, embodied in the masculine and feminine principles. The She within God creates a vortex of love like an open chalice, in the centre of which is a place of peace and silence. The He creates a corresponding vortex of love as a tall cone, and we have to bring together the chalice from below and the cone from above so that they can flow

through each other. This is the return to oneness. The reader is steeped in this powerful atmosphere embodied in and emanating from the book and is drawn into this transformative process, especially by means of the exercises. At the evocation of the Last Supper, the new covenant is God bringing heaven to earth through each of us as love. The narrative explains that Judas was given the awful task of guiding the soldiers to where Jesus was to be found in order that he could be captured peacefully - a rather different slant, as is the physical interpretation of the resurrection. Some idea of the spiritual power of the book can be gleaned from the following exercise: one person says to the other: 'within you I see only love, and I see that you are that love. Know in your heart that this is so. Open your heart and accept this truth.' The other person responds: 'I see the beauty that is me. I see that I am love, and I love myself as God loves me, completely.' This is a deeply nourishing and empowering message.

■ The Wisdom of a Broken Heart

Lars Muhl

Gilalai 2019, 235 pp., no price given.

This profound book continues Lars' work on the esoteric message of Christianity and especially on the relationship between Yeshua and Mariam in his books *The Law of Light* and *Gateway of Light*. The title comes from a quote by Rabbi Menachem Mendel that there is nothing more whole than a broken heart and that our most challenging life experiences are ultimately gifts from which we can learn and even teach. The eleven chapters travel through key spiritual themes and especially the union of bride and bridegroom and becoming a real spiritual presence on earth that reflects our true nature as a spark emanating from the great cosmic fire. We are invited to wake up and recognise the signs all around us as we tread the heavenly path of awakening. The texts take the form of an angel speaking and quote widely from Gnostic and canonical gospels to uncover their deeper meaning for our time. Our choices shape our lives, as we discover how energy follows thought. Lars gives some beautiful exercises to cultivate presence and awareness and explains the symbolic function of the various energy centres.

The relationship between Yeshua and Mariam is archetypally that between Logos and Sophia - making the two one as specified in the Gospels of Philip, Thomas, Mary and the Beloved Companion. We can be transformed into the one light as these

principles work within us, physically embodied by the embrace and kiss in a state of trust and awareness. Lars explains the significance of the texts of the Emerald Tablet and the Robe of Glory - who we are as light beings. However, we still need forgiveness and grace as well as a deeper understanding of our unfolding paths, which Lars also beautifully explains in terms of the symbolism of numbers. The final stage is transfiguration when we manifest our being as light and are connected to each other in the inner Kingdom. This is an exquisite book and the fruit of many years of inner work and deepening understanding.

■ The Silent Messenger – The Life and Work of Meher Baba

Tom and Dorothy Hopkinson

Mantra Books (John Hunt) 2019, 311 pp., £14.99, p/b.

This must be the definitive book on Meher Baba, about whom I previously knew comparatively little. The book is divided into two parts, the first describing his life and the second key elements of his teaching. He said about himself that he came not to teach, but to awaken, and remained silent for 44 years. He is right that we have been given enough words and that it is now time to live them with an orientation of love. It is clear that he was an avatar in the sense of being one with God and having transcended the ego – he also remarks that there is no evil, but only degrees of good. There is much inspiration to be derived from his teachings and realisation of Oneness on a path of love and surrender in seeking true fulfilment: 'though each form is separate from other forms, in reality they are all forms of the same unity of life..life and love are inseparable from each other.' It is not so much a question of establishing anything new, but rather breathing life into the old, but within a context where 'destruction must precede construction, out of suffering is born peace and bliss, and out of struggle comes liberation.' All of this is a profound message for our time.

■ How to Think about God

Marcus Tullius Cicero, edited by Philip Freeman

Princeton 2019, 151 pp., £13.99, h/b.

This and the next book are the latest issues in the excellent classical series by Princeton, with the original language on the left and translation on the right. This first one represents the new popularity of Stoicism and its influence with the balance between materialism and the world seen as a living whole. There is no doubt from the text on the nature of the gods that

they were an absolute presupposition of Cicero's thought, but perhaps the important point is the necessity of harmony and order in relation to the ruling principle inferred by rational argument from reflection on the nature of the human mind. The second essay is on the dream of Scipio about the afterlife, again reflecting the spirit of the age with reference to escaping the chains of the body as if from prison - we are currently the guardians of our bodies in this philosophy. A further theme, also reflected in the next book, is the importance of virtue in itself and in relation to immortality.

■ How to be a Leader

Plutarch, edited by Jeffrey Beneker

Princeton 2019, 384 pp., £13.99, h/b.

Plutarch (46-119 CE) was famous in his time for his work on parallel Greek and Roman lives and his essays entitled *Moralia*, from which the three featured in this book are taken: an essay to an uneducated leader, how to be a good leader and the question of whether an old man (50+!) should engage in politics. A political leader is one who puts city before self, a person of character and integrity who can be trusted - no need to mention any names in our current situation. Good leaders are well grounded in judgement and reason rather than the pursuit of personal gain, although this is recognised as a likely quality of an ambitious younger person. There is plenty of sound advice with illustrations from history, including from Pericles. The importance of engagement, compromise and cooperation is emphasised, along with the need to treat others with respect. Older people are indeed encouraged to enter politics with their acquired wisdom and lesser dependence on the pleasures of the body. Such experienced people can act as mentors and are less likely to feel envy than striving younger men. Justice, self-control and practical wisdom are the fruits of reflective experience and countries should take advantage of these qualities: 'for advanced age does not deprive us of the ability to serve so much as it augments our ability to lead and practise politics.' (p. 329) In terms of character and virtue, we have much to learn from the examples taken from classical times.

■ Your Vivid Life

Shayne Travis

Watkins 2019, 191 pp., £10.99, p/b.

This book is an invitation to live a radically authentic life, drawing on the author's own journey and understandings gained on the way.

The first part is about undoing conditioning, exploring solitude, awareness, the sense of self-worth and the need to let go of what does not serve you. Then comes a part on resistance, looking at relationships, evolution, nourishment and play. The third part outlines radical authenticity in terms of making a difference, service, the practice of gratitude, the need for movement and the development of unconditional love and compassion. The perspective struck me as existential in terms of taking responsibility for one's own life and there is much sound advice along the way. However, I felt there was another step to take terms of surrender so that life is lived through you as well as you living your life - there is more to it than the manifestation of desires and taking action from an individual vantage point.

■ Practical Mystics

Jennifer Kavanagh

Christian Alternative 2019, 70 pp., £6.99, p/b.

Jennifer Kavanagh is a well-known spiritual writer and has written this book on Quaker faith in action based on her own experience and insights. I would agree with a title that Quakers are indeed practical mystics in the true sense of the term, being both spiritually receptive and intensely engaged in social issues. The book gives a background on nature mysticism, describes meeting for worship, the nature of community, the imperative of service, the translation of faith into action, the importance of discernment and finding a balance in life. They are indeed a religious society of friends of truth, as their disproportionate impact on social change also demonstrate and illustrated in this book by a short biography of John Woolman (1720 – 1772). Overall, this is excellent and perceptive account of what it means to be a Quaker.

■ God's Grand Game

Steven Colborne

Tealight Books 2019, 251 pp., no price given.

Subtitled 'divine sovereignty and the cosmic playground', this is a logical elaboration of the proposition that everything we do is what God is doing through us as the 'Cosmic Animator', in other words 'God is in control of everything that happens.' The author begins by giving an account of his own somewhat traumatic development, including the death of his mother and challenges with respect to mental health. The logic unfolded stems from the author's understanding

and experience of the attributes of God: omnipresence, boundlessness, being all that exists, creativity, omnipotence, omniscience, aliveness, reality and mystery. This entails the nonexistence of free will - also asserted by those with a non-dual perspective - a denial of causality and moral responsibility as well as enlightenment. The author rejects the scientific account of determinism while his own view expresses just such a position based on the fundamental idea of control. I think this concept is problematic when applied across the board as it is fundamentally a category applicable to machines. It is, however, stimulating to engage the author's arguments and their implications as he is very well read and articulate. I do agree that there is an element of a game in the cosmic scheme, although I would describe it differently as a 'fall' into separation, sleep, darkness and ignorance so the journey is one of self-realisation waking up to unity, light and wisdom. Stephen has also written an interesting short book entitled *Big Ideas from Ancient Greece*, where he discusses 12 philosophers and the ideas they had that have influenced our way of thinking ever since. Each chapter describes the philosopher in question, is the idea and the author's reflections on this.

CONSCIOUSNESS STUDIES

■ Artificial You - AI and the Future of your Mind

Susan Schneider

Princeton 2019, 180 pp., £20, h/b.

Susan Schneider holds a chair at the Library of Congress and is the director of the AI, Mind and Society Group at the University of Connecticut. This is a brilliantly incisive commentary on the central philosophical issues arising out of AI developments. Interspersed in the text are possible future scenarios offering options for 'mind design' used as a starting point for further analysis. At the outset, the author admits finding the prospect of mind design humbling 'because frankly, we are not terribly evolved' - only too true! There is a gap between our technological and social development, identified by the likes of Aldous Huxley, E.F. Schumacher and Arnold Toynbee decades ago. Moreover, there are not only known unknowns ahead, but also unknown unknowns. All this calls for what she calls metaphysical humility. Given that 'consciousness is the philosophical cornerstone of our

moral systems', the whole question of machine consciousness is key, not only in itself but also in terms of value.

We are all inclined to get caught up in our metaphors, confusing map with territory, and here we have the language of hardware and software, with the brain running the mind as a software programme. The author dissects and demolishes this model, pointing out that the mind is not an abstraction like an equation - this is in fact a category error (p. 132). While Elon Musk and Ray Kurzweil enthuse about merging with AI, Schneider cautions these 'fusion-optimists' by pointing out the distinction between spatiotemporal continuity and continuity of identity, which brings up the whole definition of a person and, more generally, the various possible mind-body philosophical positions. AI enthusiasts adopt a computational understanding of thinking as information processing and can be characterised as 'patternists.' This form of psychological continuity is contrasted with brain-based materialism, the soul theory and the no-self view. For transhumanist patternists, it is theoretically possible on the basis of identical configurations to upload the mind into a computer to bypass physical ageing.

One problem that arises is reduplication - there could theoretically be various versions of you, each claiming to be the real one. And if your neurons have been totally replaced by artificial equivalents, are you really the same person? Missing from this whole discussion is any consideration of a spiritual or transcendental dimension of intelligence as indicated by mystical and cosmic experiences pointing towards a universal mind, although the author does maintain that science cannot in fact rule out the existence of the soul - see my review of Richard Swinburne above. The whole debate is also highly left-hemispheric and makes almost no mention of feelings and the heart - it is all clever analysis and rapid computation. The author speculates that other forms of intelligence might have evolved from 'biological' to synthetic, and many scientists regard this as the direction of evolution - enhancement rather than enlightenment. The clarity of the argument and the importance of the issues makes this book a must-read, advising as it does deep reflection and debate on who we are before rushing headlong into fusion technologies steeped in computer metaphors playing fast and loose with the attribution of consciousness.

■ **New Brain, New World**

Erik Hoffman

Hay House 2012, 223 pp., \$16.95, p/b.

Subtitled 'how the evolution of a new human brain can transform consciousness and create a new world', this book is based on 40 years of consciousness research in meditation, kundalini, feeling release therapy, ayahuasca and brainwave training. Just as Fritjof Capra referred to a crisis of perception, so the author diagnoses our situation as a crisis of human consciousness dominated by the influence of the ego, writ large in our economic and political systems. Chapters are devoted to the evolution of human brain, various means of expanding human consciousness, awareness as the driving force in consciousness development and the awakening of a new brain to produce a new more unitive consciousness as a vital factor in evolution. If the ego represents separation and selfishness mainly focused in the left hemisphere, the higher self is more aligned with the culturally repressed right hemisphere represented by sex, nature, feelings and the feminine. Given that the book came out in 2012, the discussion of this area would have greatly benefited from the work of Iain McGilchrist.

The author's research work on ayahuasca shows a large increase in alpha and theta waves and a shutting down of the left hemisphere to allow right hemisphere activity to prevail. He sees kundalini as the evolutionary energy bringing greater coherence to the frontal cortex increasing sensitivity to subtle bodies. He interfaces his analysis with consistent spiritual teachings and illustrative experiences. There is an interesting discussion about the distinction between concentration and awareness, where the latter is defined as a mind that is conscious but not focused – an attentional state trained in meditation. He then explains his own work on alpha and gamma brainwave training, where one can see considerable potential educational applications as a contribution to mental health, not to mention the development of creativity, flow and intuition. The author's overall model suggests that, as the new brain develops, the ego dissolves as activity shifts from the left to right hemisphere. Of course there is a developmental process that needs to be respected, but the social implications are profound at a time when we urgently need to develop a greater sense of interconnectedness. In his conclusion, the author sets this all out and shows how his research leads to a more spiritual science. This is an important contribution and the interface between consciousness, neuroscience and culture.

■ **The Selection Effect**

Herb Mertz

Penn Wolcott Press 2019, 345 pp., no price given.

I met the author of this stimulating book about how the mind shapes reality over dinner at the science of consciousness conference in Interlaken. He is one of the pioneers in the development of work with random event generators and in the process discovered a great deal about the functioning of his own mind. He tells his own adventurous story of trying to make sense of the relationship between mind and brain and the nature of intention and causality in what he calls the selection effect where the mind tries to influence the behaviour of a machine. In this respect, he develops the notion of a mental regulator around expectation, violation of a norm and an attempt at correcting the deviation. This leads him to understand two meanings of the word 'should' in terms of prediction on the one hand and values on the other. Experiments tend to go well in a state of flow, freedom and openness but this is easily interrupted in a self-reinforcing loop of fear that modifies the expectation. A shift from ego into what he calls the connected self is aligned with good performance and this whole process is correlated with the notion of an observer-dependent reality overlaid with (or within) the 'mirror maze' of mind. This leads him to postulate that the brain may be derived from the mind and the mind may be all there is.

The author draws a number of life lessons from his work with random event generators. He notes that there is always a purpose behind intention, that we need a balance between courage and vulnerability and to develop empathy as a result - possibly through surrender and letting go. He finds that models are limited and need to be managed, and space must be made for 'allowing moments.' Life may oblige the ego to surrender and give up, and it is just in these moments that freedom and flow appear. We are coming to question received truths and searching for new frames of reference. An interesting theme that comes up towards the end is the generalisation of the decline effect found in parapsychological experiments to science more generally in terms of the replication crisis. A study of 100 psychology experiments showed that 62% did not hold up to replication - a criticism often levelled by psychologists at parapsychologists. There may be some kind of psychofeedback going on here so we can benefit from the development of self-aware thinking

beyond the fast and slow modes of Daniel Kahneman. It looks like we need to take a leaf out of quantum physics to apply observer-dependent reality to all fields of intellectual endeavour - for instance as manifested in the experimenter effect, and culturally our embeddedness in webs of meaning. So the author ends up finding out much more about the processes of his own mind than he had initially expected, and readers can follow his adventure and see how this applies to their own minds.

■ **Seeing**

George Gillespie

Imprint Academic 2019, 184 pp., £14.95, p/b.

Subtitled 'beyond dreaming to religious experiences of light', this fascinating book is by a Baptist minister who has taught the history of religions in India and is based on a subtle analysis of his own experiences of what he calls the fullness of light experienced as the presence of God ("I have experienced God in the light"). He raises the question of visual perception without eyes in dreams so that in a very real sense this seer is both seeing and seen - what is the nature of the light experienced? He notes that seeing any visual image is a form of eyeless seeing. He also relates his own near death experience as well as many lucid dreams and other fine states of consciousness that are hard to describe, define and conceptualise - especially the ineffable and formless. For the author, all visual imagery is the seeing of light, and brightness is the intensity of image, nevertheless seen with a perceptual mindset unless it fills the whole visual field: 'The fullness of light is a vibrant, intense light with a boiling effect, filling the elementary visual field and appearing to surround me... it is customarily accompanied by deep devotional feelings and uncontrollable joy and reverence in addition to the knowledge that God is present.' (p. 120) This is also an experience of numinosity, a non-rational awareness of the holy. Anyone with a serious interest in spiritual light and experience will want to study this book closely.

■ **Greening the Paranormal – foreword by Paul Devereux**

Edited by Jack Hunter

White Crow Books 2019, 311 pp., £14.99, p/b.

This book must be a first in exploring the ecology of extraordinary experience in terms of anomalistics. In his introduction, Paul Devereux introduces a number of key themes including animism, the nature of the

vision quest, liminal sacred places where the veil seems to be thin, and interspecies communication. He points out that these are bridges that our culture is very reluctant to cross, yet such experiences are common. The editor goes on to observe that the ontological assumptions underlying the rejection of paranormal phenomena are the same as those relating to the ecological crisis and Western society's fractured relationship with the Earth. We therefore have to change the way we think about our place in the cosmos and how we communicate with other beings involving a re-enchantment process to compensate for the disenchantment of the mechanistic worldview. One chapter suggests that we need to listen more carefully to indigenous elders like the Kogi with their message of human embeddedness in the Earth. Correspondingly, anthropologists have found themselves gaining new insights by participatory methodologies going beyond objectivity to cultural observation. In many societies they investigate, what we would call paranormal is simply normal, the invisible matrix behind the visible in places where the boundary between worlds may be thinner. Connection also leads to empathy, and it is important to reawaken the significance of sacred places and rhythms of the year celebrated in rituals and festivals. A shamanistic perspective comes through in a number of essays through species connectedness, birds, relationships with animals - sometimes involving dreams - and psychedelics. The final chapter coins the term psychic naturalism to look at the function of psi in its greater ecology and usefully maps the relationship between approaches taken by participant-experiencers and interdisciplinary scholars. This is a ground breaking volume, which I hope will appear on University syllabuses in due course.

■ Super Consciousness

Colin Wilson

Watkins 2019, 179 pp., £14.99, p/b.

This is Colin Wilson's final book of over 100, returning again to themes from his first book, *The Outsider*, where he analyses states of boredom and passivity leading to despair, while it is possible for each of us to experience life more intentionally, intensely and vitally, cultivating optimism and what he calls 'power consciousness' when we feel alive and connected with a sense of freedom, meaning and purpose. As in his other books, Wilson ranges widely over literature, philosophy and psychology looking at the inner states

reflected in various writers and their characters. The nihilism of Beckett is counterbalanced with the vision of William James and Blake, and there is also considerable discussion of the relative roles of left and right hemispheres although without any reference to Iain McGilchrist even though he shares his enthusiasm for Husserl, a thinker neglected in British universities. He could also usefully have drawn on the work of Peter Kingsley in pointing out the mystical roots of Western philosophy as part of the way in which it has lost its way.

The final chapter gives some practical advice on how to achieve 'power consciousness' while relating it to a system of various levels. Here Level 3 is the nausea of Sartre and Level 4 normal and somewhat automated consciousness; at the upper end, this shades into 'spring morning consciousness' where we know life is good and leading to Level 6 'magic consciousness' or delight, Level 7 of Faculty X where the mind is both energised and relaxed, then Level 8 for mystical consciousness. For Wilson, the task is to move up the levels and become less automated, though he does not provide a real background of spiritual or meditative practices, concentrating rather on changing his state of mind (he does discuss the role of attention as well as concentration and intention); nor is there any mention of love or light in the process of development. So one is left with the sense of huge erudition and mental development, while the heart is relatively absent.

■ Our Secret Powers – Telepathy, Clairvoyance and Precognition

Terje G. Simonsen

Pari Publishing 2018, 531 pp., £12.99, p/b.

Terje Simonsen is a Norwegian historian of ideas – here he has provided an accessible and readable guide to the whole paranormal landscape using an interdisciplinary lens and a very wide range of case histories and some unfamiliar biographical references. His framing is unusual in terms of, for instance, the relationship between occultism and parapsychology - and many of the sections are short and concise. Within this comprehensive manual on the 'mental Internet', there are good discussions of perspectives on consciousness, laboratory parapsychology and the nature of scepticism, concluding that we need an updated grand narrative to take a wider perspective into account. Seasoned readers will find much new material, while those new to the field can rely on the author's fair-minded judgement.

■ The Mind's Interaction with the Laws of Physics and Cosmology

Jeffrey S. Keen

Cambridge Scholars 2018, 430 pp., £67.99, h/b.

This is a technical, rigorous and very wide-ranging book about the nature of subtle energies, approached generally from the angle of dowsing. It is written for those already familiar with the field and its research base, making many detailed suggestions for further research work and describing extensive experimental studies. There are discussions of the importance of geometry for understanding subtle energy patterns, various types of aura, a model of consciousness entailing a universal mind from which we can download information, then spirals and vortices in subtle energy configurations, and instantaneous communication across the solar system. The author concludes by stating that 'the components of a theory of (universal) consciousness and noetics include subtle energies, the fabric and structure of the universe, waves, spin, vortices, platonic solids, Pythagorean triangles, quantum physics, fractal geometry and electromagnetic radiation' - this gives a good impression of the extraordinary scope of the book.

DEATH AND DYING

■ Approaching Death

Renee Zeylmans (1936-2018)

Floris Books 2019, 240 pp., £14.99, p/b.

Subtitled 'a companion's guide to the end of life', this informative and compassionate book suggests that at a deep level, death is a birth into a new dimension. Novalis is quoted as saying, 'where a spirit dies, a human being is born; where a human being dies, a spirit is born.' The cycle of one life is complete. The book is written for carers but also those close to a loved one who is dying or has died. As such, it is full of practical information as well as human stories illustrating various scenarios. The author emphasises that the dying process is individual and that we may have to unlearn things in the process as well as learn. We certainly need to listen and remain aware of our own mortality as separate egos and the anxiety that can arise when really considering transience. In love, one first connects and then has to let go. Some essays are by colleagues, especially those focusing on care for the dying and writing about the languages of images that the threshold, music for the terminally ill and artistic therapy. The approach of

death covers physiology, euthanasia, fasting and the moment of death, while the last section is concerned with issues after death, including remaining connected with those who have made the transition. In this respect, there is an extraordinary synchronicity involving a CD that switches itself on and turns out to be the favourite song of the deceased son of the family; at the same time, it happens that his brother is playing the very same CD in his car in England. A very worthwhile read.

■ The Truth Inside

Ali Norell

O Books 2019, 234 pp., £11.99, p/b.

This book tells the harrowing story of the death of the author's youngest daughter at the age of four months from the viewpoint of both a spiritual medium and a mother. Spiritual knowledge and communication does not mean that the experience of such a loss is intensely challenging, but does provide a framework of understanding absent in many other cases. The author sees life in terms of lessons to be learned, with prior contracts established in a general blueprint. It turns out that the older sister is also psychic, commenting that Romy will be 'going back' before she suddenly dies. The author also had no sense, as with her other children, of her path through life. Her death was a visionary experience of light, though shattered by the physical reality of the dead body left behind. The aftermath was a complex journey, but reassurance comes from the other side as well as from the older sister after they both have an experience of intense green associated with Romy. Readers are invited to engage in the journey themselves and listen more carefully to Spirit.

FUTURES STUDIES/ ECOLOGY

■ Re-Imagining America

Christopher Schaefer

Hawthorn Books 2019, 182 pp., £15, p/b.

Subtitled 'finding hope in difficult times', this penetrating book is both a radical diagnosis of US social ecology and a prescription for a New World. It comes out of a Steiner social background relating culture, politics and economy and our respective roles within these spheres. On the one hand, it diagnoses the corruption of the US system in terms of militarism, racism, inequality, greed, oppression and a plundering economy based on neoconservative principles - the shadow of prevalent policies, but also offers concrete hope based on

witnessing and engagement rather than withdrawal and passivity. The author has no illusions about the American Empire Project in terms of will to power, chillingly quoting Kissinger's six essential principles of international politics in terms of maximising its interests, maintaining military power, promoting regional rivalries and conflicts, managing information and hiding strategic interests, overt and covert use of power, and war as an essential activity. This is the prevailing 'realism' reflected in policies pursued by the US, Russia and China. And as the author rightly points out, it is also consistent with disturbing questions about 9/11 and the War on Terror. He also details the political tactics used in order to maintain power and control (p. 112)

The third and fourth parts discuss the crisis of Western capitalism and looking for hope in difficult times. We need to exercise both imagination and will in addressing structural evil and developing a coherent philosophy of hope. The author suggests a number of practices in this respect: reflection, seeing the good, recognising the gift in daily life, appreciating nature and practising moral discernment. This is an intentional journey of transformation, healing, reconnection, renewal and co-creation. As Jacob Needleman also suggested in his book on the American Soul, Americans need to reconnect with their founding principles and ideals rather than fool themselves that these are still being but into practice through exceptionalism. The author lists a number of political starting points in terms of restoring and deepening democracy, building a sustainable and just stakeholder economy, including an Automatic Payment Transaction Tax on financial transactions, and protecting and extending freedom and mutuality in cultural life. The book is equally strong on diagnosis and prescription reflecting both pessimism and a potential optimism if we take future into our own hands.

■ Narrative Economics

Robert J. Shiller

Princeton 2019, 377 pp., £20, h/b.

In this highly readable introduction to narrative economics, Nobel Prize winner Robert Shiller sheds historical and contemporary light on the power of stories to shape economic events, especially when they become contagious or viral in a similar way to epidemics. John Kenneth Galbraith famously said about forecasters that there are two kinds: those who don't know and those who don't know they don't know. The author argues for a role for narratives in anticipating economic events, and explains

historically how Keynes was right in his analysis of how the Versailles Treaty would be interpreted in the light of economic conditions. Beginning with a chapter on bitcoin narratives then moving onto a more comparative analysis, he explains the dynamics of why some stories do go viral, also bringing in the craze of Rubik's cube - in my own childhood it was yoyos, with earlier and later adapters as they became more popular.

The second part explains the foundations of narrative economics whereby new contagious narratives can cause economic events and economic events bring about changed narratives. The author then sets out seven propositions about their nature, including that their economic impact can change through time, that truth is not enough to stop false narratives and that they thrive on human interest, identity and patriotism. This leads into a more extensive section with nine perennial economic narratives explaining their historical and contemporary significance. These include panic versus confidence, frugality versus conspicuous consumption, laboursaving machines and jobs (also automation and AI), then real estate booms and busts and corresponding stock market bubbles leading to crashes; the last two narratives have moral implications and deal with boycotts and profiteering and the wage-price spiral. Readers can readily identify with the examples given in this book and will gain a much better understanding of the role of stories, especially in view of the speed of modern contagions.

■ Crowdocracy

Alan Watkins and Iman Stratenus

Urbane Publications 2016, 287 pp., £12.99, p/b.

In the 1970s, I remember seeing an amusing film called *The Rise and Rise of Michael Rimmer* - long before the days of the Internet - where Rimmer took consultative democracy to such an extreme through TV communication that he was eventually elected dictator so that he could get on with things himself. Subtitled 'the end of politics', this stimulating book is a response to the shortcomings of democracy focusing in particular on governance, participation and the overall quality of decision-making. It recognises that we live in a world of wicked problems that require complex solutions. Currently, power is in the hands of an elite represented by lobbies and vested interests who shape politics for their own purposes. After a brief history of governance, the book moves on to explain the notion of the wise crowd based on diversity of knowledge and opinion, independence of thought

and collaboration, decentralisation of power and integration - all of which can be facilitated through user-friendly technology platforms. A number of examples of crowdocracy in action are given, for instance Kickstarter and Change.org before a more detailed consideration of how the process can work in terms of proposing, shaping and public consultation. The overall framework draws on Ken Wilber's four quadrants and represents a potential evolutionary advance, especially at a time when wicked problems emphatically require wicked solutions. Partisan divisions arising from referendums are not at all what it is about, but rather defining and drawing on collective wisdom - I think a further element to add to the mix is John Bunzl's idea of simultaneous policy that encourages governments to act in the planetary rather than their national interests.

■ No One is too Small to Make a Difference

Greta Thunberg

Penguin 2019, 68 pp., £2.99, p/b.

This short book contains speeches given by Greta to parliaments and conferences over the last year. The tone is blunt, pithy and to the point, pulling no punches. Readers will be familiar with the divisive reporting that her message has generated in terms of political ramifications. She bases herself family in IPPC science but also in planetary overload - her own country Sweden uses resources equivalent to 4.2 planets. She states that we already have all the facts and solutions, and that all we need to do is to wake up and change - this is precisely the problem, given the momentum of business as usual supported by the world's most powerful interests. It is becoming increasingly apparent that capitalism and sustainability are incompatible, and just this morning I read an article demolishing the notion of green growth. As she says, we need to focus on what needs to be done, rather than what is politically possible, otherwise there is no hope. At the World Economic Forum in January, Greta slept outside in a tent in sub-zero temperatures. She strikingly accuses political representatives of being immature and irresponsible, and in the House of Commons she kept on asking if the microphone was on... The reality is that we do indeed need a new politics and a new economics if we are to survive and thrive as a civilisation. The contrast between her words and our collective inaction could not be more stark, yet we are all implicated. This powerful book should be read and digested by every generation.

GENERAL

■ The World's Most Prestigious Prize

Geir Lundestad

Oxford 2019, 229 pp., £18.99, h/b.

This is a fascinating book by the former director of the Norwegian Nobel Institute giving the inside story of the Nobel Peace Prize from its inception in the will of Alfred Nobel until the present day. There is a full list of laureates dating from the award of the first prize in 1901 and an analysis of emerging themes for which awards have been made - attempts to render war obsolete, humanitarian undertakings, human rights, disarmament and the environment. The author analyses why the prize has been so successful and its influence on behalf of laureates such as Mohammed Yunus and Lech Walesa. There are also distinctive historical periods covering the influence of the League of Nations and the United Nations, with the latter's agencies winning a number of prizes. There are behind-the-scenes vignettes, for instance surrounding Gorbachev, who is also one of 10 portraits in a separate section, including the hugely deserving Jimmy Carter and Barack Obama. The committee consists of five Norwegian parliamentarians and one can appreciate through this book how they have attempted to push the envelope in various respects. The author admits that the lack of a prize for Gandhi is perhaps the greatest omission, although at the time there were diplomatic ties with Britain to be considered. Another person who might have been a laureate is Andrew Carnegie, who spent \$25 million in the money of the time on peace projects, including special awards and the Peace Palace in The Hague. This is altogether a unique insight into the prize that makes compelling reading.

■ A World Divided

Eric D Weitz

Princeton 2019, 544 pp., £27, h/b.

This wide-ranging and important book is about the global struggle for human rights in the age of nation-states that emerged from colonial empires as a first major stage of globalisation involving the oppression and subjugation of native peoples and their attempted assimilation into the dominant invading culture. The nation-state has come to represent rights and citizenship, and is the entity that can at once enforce and violate human rights, especially with respect to minorities: who belongs and who is excluded? After an initial chapter on empires and rulers in the 18th century, the book subsequently focuses on very

different individual histories including Greece, America, Brazil, Armenia, Namibia, Korea, the Soviet Union and Palestine and Israel. The latest UN figures calculate that 68.5 million people have been forcibly displaced, an already staggering number set to increase with further environmental and political fallout. It is also fascinating to learn that between 1815 and 1914, a total of 82 million people migrated, including 55 million across the Atlantic, of which 60% to the US. Each story has its own focal point, whether the marginalisation of indigenous peoples, slavery in Brazil, Jewish minorities in Europe or the ambiguities in the simultaneous promotion and repression of human rights in the USSR. The overall dynamic is that popular uprising and mobilisation have been essential for social progress and overcoming discrimination. We must necessarily live with diversity and differences, and I agree with the author that human rights remain our best hope for the future as they are gradually extended to cover more ground.

■ Evolutionary Metaphors

David J. Moore

6th Books (John Hunt) 2019, 163 pp., £10.99, p/b.

This is an intriguing study of how to make sense of UFOs starting from the 'new existentialism' and a specific book by Colin Wilson on the subject. Like Jung, the author sees the phenomenon as an archetypal challenge to our cultural limitations and explanations of consciousness, challenging, like synchronicity, a sharp distinction between inside and outside by developing the higher reaches of imagination. Interpretation is key, and we have to use metaphors in this respect to achieve what William James called a more enveloping point of view. The existentialist angle comes in with the discussion of perception, will and intentionality in terms of the development of consciousness and therefore of access to deeper layers of being and knowability where we discover our ultimate non-separation. As the author observes, Kant's noumenal is 'only unknowable to one half of our perceptual systems.' And since, Ouspensky points out, we are an image of the world, it is impossible to study a system of the universe without studying ourselves, and vice versa. We easily mistake our paradigms for reality itself, forgetting that they are culturally embedded representational structures. Anomalous phenomena in general demand a different set of assumptions, as is argued in the Galileo Report. As Plotinus said in the third century, 'we are within a reality

that is also within us', expressed by Whitley Strieber that consciousness is not only in us, but that we are in consciousness and in bodies designed to filter out any vision of larger reality (Bergson referred to the brain as the organ of attention to life). In this sense, an evolutionary metaphor is one that expands our consciousness and therefore advances and even transforms our knowledge.

■ The Drama of Celebrity

Sharon Marcus

Princeton 2019, 318 pp., £24, h/b.

This book shows that there is a great deal more the celebrity than a superficial analysis might suppose. The central figure is Sarah Bernhardt (1844-1923) who was one of the first celebrities in the sense that we have come to understand the term. The book contains a great deal about her fascinating life and career in its various phases. The central contention of the book is that celebrity arises from an interaction between the people themselves, various publics and the media. Celebrities have to be adept at self-promotion in addition to displaying their talents. The author identifies in a series of chapters a number of key features, which she illustrates with historical examples: defiance, sensation, savagery, intimacy, multiplication, imitation, judgement and merit. While the marketplace is now dominated by the Internet, in late 19th-century Paris the most popular newspaper was selling 500,000 copies a day while capitalising on the same kind of stories. There is an uncanny resemblance between the careers of Davy Crockett and Donald Trump, highlighting the book's emphasis on continuity so far as celebrity culture is concerned. It is true that we get the celebrities we deserve, then they become a mirror image of the culture at large.

■ Voltaire on the Cathars

Voltaire, translated by James McDonald

Amazon 2019, 75 pp., £8, p/b.

Readers may remember my review of James McDonald's magisterial volume *Beyond Belief*, a radical critique of the history of Christianity. Here he has translated a chapter on the Albigensian Crusade by Voltaire, written with his customary acerbic irony. As James observes, the Cathars prioritised love and simplicity over power and luxury, while Voltaire's weapons are objective facts and ridicule - a tactic that landed him in a great deal of trouble during his lifetime as he championed outrageous miscarriages of justice in the name of faith. The Albigensian Crusade is one such barbaric genocide, bringing with it the Inquisition (1229) and a police

state. A fascinating observation is that Voltaire himself was educated by the Jesuits and subjected to child abuse, accusations that date back to the 11th century just at the time when the celibacy of Catholic priests became mandatory. A crowd of people pointedly told the Abbot of Citeaux to abandon either his luxury or his sermon, which St Dominic indeed did, emulating as he did the simple lifestyle of the Cathars. Voltaire's conclusion highlights the paradox of brutal barbarity in maintaining religion where the founder himself was executed by the authorities. It is a reminder that integrity and justice are critical to a healthy culture at any time.

OTHER BOOKS RECEIVED

■ The Book of Awakening

Mark Nepo

Quercus 2019, 434 pp., €14.77, p/b.

A beautiful and profound book of daily wisdom consisting of quotations, stories, reflections and exercises arranged as a calendar for every day of the year. Today, we are asked by Native American medicine man, when was the last time we listened to the stories of others - where we can learn about hidden aspects of ourselves.

■ The Foreseeable Future

Gary Williams

6th Books (John Hunt) 2019, 190 pp., £11.99, p/b.

An interesting journalistic account of precognition with many case histories and putting forth the view there everything that is going to occur has already occurred, the future has not yet arrived and is already contained within the reel - a block universe or web view in the imagination of God. Within this unfolding picture, the author encourages us to give out light and love as the most constructive way of participating in life.

■ The Origins of the Creed of the Christian Community

Peter Selg

Floris Books 2019, 69 pp., £9.99, p/b.

■ My Son - My Light

Lilian M. Niven

Self-published 2019, 237 pp., no price given - see www.mysonmylight.co.uk.

This is an evidential book of communications from the author's son, who died in 2002, in the form

of dreams, visions, synchronicities and communications through various different mediums. All this adds up to an impressive tapestry with very valuable insights into her path of spiritual development following her loss.

■ The Maria Thun Biodynamic Calendar 2020

Maria and Matthias Thun

Floris Books 2019, 64 pp., £7.99, p/b.

The classic annual biodynamic calendar that has cumulatively sold more than 100,000 copies. As well as giving advice on sowing and planting, there are features on fruit trees and the timing of hoeing depending on weather issues.

■ The Moon Gardener's Almanac 2020

Therese Tredoulat

Floris Books 2019, 120 pp., £8.99.

A best-selling book in France (100,000 copies a year) providing a complementary resource to the work of Maria Thun, now also available as an app.

■ When Wine Tastes Best 2020

Matthias Thun

Floris Books 2019, 48 pp., £3.99, p/b.

The biodynamic calendar for wine drinkers indicating the best days to drink wine - on fruit and flower days when the flavours are more expressive.

Transience

Hermann Hesse

Leaf after leaf falls
From my life's tree.
O, life's dizzying round,
How you weary and sate me,
How drunk you make me!
Today's ardent glow
Presently abates.
Soon the wind will whistle cold
Over my brown grave.
The mother bends down
Over the little child.
Let me see her eyes again,
Her gaze is my star,
Let all else pass and be taken
by the wind,
All that's mortal dies gladly.
Only the eternal mother
remains,
From whom we came,
Her playful finger
writes our names
In the fleeting sky.



The Scientific &
Medical Network

An oracular seminar
with Shantena Augusto Sabbadini
and Cruz Manas Sabbadini

Mirror of the Present: The I Ching and Synchronicity

Marlborough Room, Oxford and Cambridge Club,
71 Pall Mall, London SW1Y 5HD
21st-22nd March 2020



The Scientific &
Medical Network

Mystics and Scientists 2020
Horsley Park, Surrey
17th-19th April 2020

Re-enchanting the World – Consciously Connecting with the Deep Wisdom of Nature

Speakers: Dr Rupert Sheldrake, Pea Horsley, Heidi Herrmann,
Judith Prager, Fred Hageneder, Shakti Caterina Maggi,
Anna Breytenbach, Prof. Paco Calvo, David Lorimer

The Scientific and Medical Network is a leading international forum for people engaged in creating a new worldview for the 21st century. The Network brings together scientists, doctors, psychologists, engineers, philosophers, complementary practitioners and other professionals. The Network is an educational charity which was founded in 1973.

The Network aims to:

- *challenge the adequacy of scientific materialism as an exclusive basis for knowledge and values. See www.galileocommission.org*
- *provide a safe forum for the critical and open minded discussion of ideas that go beyond reductionist science.*
- *encourage a respect for Earth and Community which emphasises a spiritual and holistic approach.*

In asking searching questions about the nature of life and the role of the human being, the Network is:

- *Open to new observations and insights;*
- *Rigorous in evaluating evidence and ideas;*
- *Responsible in maintaining the highest scientific and ethical standards;*
- *Sensitive to a plurality of viewpoints*

Network services

- *Paradigm Explorer, published three times a year*
- *Monthly e-newsletter*
- *A website with a special area for Members*
- *Monthly London Group meetings*
- *Downloadable MP3s from our conferences*
- *Links with MSc course in transpersonal psychology*

Network Conferences

The Network's annual programme of events includes:

- *Annual Beyond the Brain conference*
- *Two annual residential conferences (The Annual Gathering, Mystics and Scientists)*
- *Annual residential conference in a Continental European country*
- *Day conferences and evening lectures*
- *Concessionary rates for full time students*

Joining the Network

Membership of the Network is open to anyone who wishes to explore some of the most difficult questions of our time with a community of like minds. Student members must be engaged in full-time study.

Subscription Rates

Membership of the Networks costs £60 (with printed review). Please contact the office for further details. £40 concession.

Membership Applications

Please visit www.scimednet.org or email info@scimednet.org

www.scimednet.org