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

Evolutionary Rune-minations

Martin Lockley

THE RUNES OF EVOLUTION: HOW THE UNIVERSE BECAME SELF AWARE

Simon Conway Morris, FRS

Templeton Press, 2015, 198 pp., $39.95, h/b - ISBN 978-1-59947 494-9.

Do we need another book on evolution? Although phrased somewhat differently, this is the question Simon Conway Morris asks, and answers positively by promising something "different." Simon, a Cambridge paleobiologist has lectured at SMN meetings and is also known to a wider audience of evolution aficionados. Likewise his publisher, Templeton Press, is known for its advocacy of "different" perspectives, perhaps one might say beyond scientism. Simon has made a name for himself by searching for deeper evolutionary truths, deeper that is than traditional Darwinism. Without disputing the "primacy of the Darwinian explanation" he is amusingly scathing about "the ultra-Darwinists who… rejoice in the complete meaningless of the universe…taking gleeful pleasure in perversely magnifying our utter cosmic insignificance." As in a previous book (*Life's Solutions*, ***Network 85***) Simon's search for evolutionary "meaning" is both refreshing and interesting, and sets him apart from most of his mainstream colleagues. But then again few colleagues have been Gifford lecturers or bold enough to publically address controversial metaphysical and spiritual/religious questions under the rubric of evolution. Simon's thesis can be summarised in a single word "convergence."

Those not steeped in evolutionary theory may nevertheless know that traditional Darwinism argues that natural selection acts on random mutation in such a way that extrinsic forces are thought to weed out those not "fit" enough to survive. In this model, the world is a dangerous place in which largely passive organisms are knocked down like nine pins if they don't have "what it takes" [whatever that is] to adapt to the external threats that may strike at random like bowling balls or meteorites (also known as bolides)! In this scenario, if different animals develop different adaptations: say wings in birds, bats and pterosaurs, it is called "convergence" and considered a rather happy but nevertheless surprising and random coincidence brought about by animals undergoing selection in similar habitats. But convergence, as Simon notes is so ubiquitous that he repeatedly refers to it as "rampant," and so argues that intrinsic biological development appears to be so often attracted down predictable pathways, that not only can it not be considered random, but rather it appears to be directional to the extent that some outcomes appear almost "inevitable."

Organisms as their name implies have intrinsic organisation [and organisms are even classified, traditionally into "orders"]. My favorite example, cited by Simon, is the brain child of Oxford paleontologist Tom Kemp, is referred to as "correlated progression." Dealing with our earliest mammalian ancestors, Kemp noticed that on multiple branches of the evolutionary tree various early mammals always followed certain directions as they developed new anatomical traits [such as our useful and still-much-used and evolving jaws and ears]: so traits A,B,C,D and E always appeared in the same order, even if at different rates and with different expressions. Sometimes the sequence might be A,B, D, E or A,B,C, E, skipping a beat, so to speak, but never a random or disorderly sequence. Such directionality speaks to intrinsic biological "order." Although Simon is pioneering in his recognition and understanding of the implications of convergence for intrinsic directionality, the sea change in biology in recent decades, especially in molecular and genetic studies, and so called evo-devo (evolution of development) have thrown the field wide open, and made his case a little easier, by demonstrated that Darwinism is only a somewhat aging part of a far more complex evolutionary paradigm. Biology is very complex and dynamic, if you don't believe it read Simon's book.

Here a buyer beware warning: *caveat emptor*! Especially for the non-specialist, expect a blizzard of polysyllabic names of obscure species, families and sub tribes of plants, animals, the microbes and parasites they associate with [not always willingly] and the complex organic chemistry that keeps them ticking, or should I say dynamically diverging and converging. Perhaps taking a leaf from Darwin's classic work, Simon is nothing if not thorough in his choice of endless examples taken from nature's laboratory, so much so that the import of his main thesis often has to await a hearing until a few dozen, dense, supporting examples and arguments are laid out. But, with a little hacking through the jungle of biological verbiage and specialised detail, the structure of the book emerges as a pleasingly organic epic, that democratically works through the evolutionary histories and implications of countless groups of organism, their senses and quirky behaviors.

The work is democratic in the sense that as each step towards greater complexity is examined, along what many still regard as the trajectory of time's complexifying evolutionary arrow, Simon digs back and shows that simpler organisms, such as sponges or even bacteria, manifest surprising, and often previously unacknowledged complexity. This complexity is convergent with what we humans, as "higher mammals" have tended, rather chauvinistically, and perhaps too proudly, to claim as our own rather exceptional characteristics. Convergence reminds us that discovery of biological sophistication in one species often leads to unexpected recognition of similar traits in another "humbler" and quite unrelated form.

So what about the runes that speak to a self-aware universe? Well, here the story is perhaps quite familiar, especially to the SMN crowd. The trend towards bigger brains (called encephalisation) in many species, especially hominids, has helped with self-awareness, making humans at least one avenue by which the universe has become self-aware. Simon's thesis is that this trend is/was "inevitable." Without overtly suggesting the universe has "purpose" he nevertheless speaks of meaning and takes swipes at those [academics and

spokespersons?] whose "beautifully-crafted talks…[postulate]… that all is without meaning. If you believe that you'll believe anything." [I used to tell students that simple logic allowed them to disregard as meaningless anyone who, as a part of the universe, claims it is meaningless]! So ostensibly Simon regards evolution as interesting, not because it is true and fascinating (which it is) but because it leads to self-awareness. [I take it we can also see this as evolution's inevitable " purpose," even if we refer only to "direction" and stop short of any dreaded categorical statement about teleology determining final meaningful goals].

Who is to define the meaning of meaningfulness?! Self-awareness and consciousness surely have considerable meaning, allowing humans to contemplate the very concepts of evolution, meaning and purpose in the first place. Again treading on familiar ground, Simon reminds us that self-awareness "inevitably' raises the specter of mortality, evidently a metaphysical issue since the time of the Neanderthals. Simon tries to navigate this question with rather an arcane discussion revolving around a Weber-Fechner law [new to many I suspect] and Roger Shepard's arguments about living in a 3D, Euclidian and mathematically comprehensible world. Well, Yes! I guess! Some have waxed lyrical about God as a weaver of pre-existing mathematical laws and mind fabrics. But the mystery remains, and in his final analysis Simon quotes Edwin Muir (who better?) and Llewelyn Powys who both stand in awe at the realisation that: "human beings are understandable only as immortal spirits," [presumably in some way spiritually connected to the organic fabric of evolution, *n'est-ce pas?*]. All said, one must agree that evolutionary observations require that paleobiologists, like Simon, ask these consciousness-laden questions about their own capacities and purpose as observers. All this should propel the human mind beyond the bounds of traditional Darwinism. SMN readers will surely resonate with these rune-minations.

Professor Martin Lockley *is emeritus professor of geology and consciousness studies at the University of Colorado, Denver.*

Technology and Beyond Body Phenomena

Nicola Miller

ACOUSTIC TECHNICS

Don Ihde

Lexington Books, 2015, 148 pp., £49.95 (hardcover), £47.45 (Kindle) - ISBN 978-1-4985-1923-6 (Hardback); 978-1-4985-1924-3 (ebook)

"For every change in a 'world' there is a corresponding change in the experiencer—the embodied human perceiver"

From simple tools used by our ancient ancestors to the vast array of 'tools' or instruments familiar to us in the 21st century, technology transforms the way we live. Compared with earlier historical periods, today's rapid pace of technological development means it's impossible to keep abreast of new discoveries and advances and, more importantly, the implications new technologies may have for the way we live, for our animal neighbours, and for the Earth that sustains us. In fact, the speed of change and the excitement that accompanies new inventions means they are often launched before implications arising from their use have been fully considered. Within this context *Acoustic Technics* is a very timely publication. The author, Don Ihde, is a distinguished American philosopher of science and technology and Emeritus Professor of Philosophy at the State University of New York at Stony Brook. Although retired in 2012, Ihde continues to write and is in great demand as an international speaker.

Acoustic Technics is one of a new series of publications concerning the philosophy of technology and, in particular, the school of thought called postphenomenology. It is described as a contemporary follow up to *Listening and Voice: A Phenomenology of Sound* (1976), Ihde's "first original systematic foray into *doing* (classical) phenomenology and … reflection upon how we experience our world." In this new book Ihde revisits his view that "all our perceptions are whole body perceptions" before turning his focus towards high-tech acoustic imaging technologies.

While *Acoustic Technics* will be at home on shelves of readers already familiar with his work, it is a book that deserves recognition by a wider readership because the issues he raises concern us all. Although accessible to readers without a philosophical background, some readers may be unfamiliar with the meanings of philosophical terms such as 'classical phenomenology' and postphenomenology so a little diversion, drawn from *Acoustic Technics,* may be helpful:

Classical phenomenology concerns how we experience our environment through our senses (e.g. hearing, vision, touch, taste and smell). In classical phenomenology, the limits of perceptual experience are determined by the perceptual range of the senses. Postphenomenology, on the other hand, examines the way in which we can extend our experience and knowledge of our "lifeworld" with the help of technology: it is aided or mediated experience. "It is to this human—instrument—world interrelationships that postphenomenology can and does attend."

Ihde draws on more than 40 years of careful thought and reflection about sight and sound in human experience and practice, and extensive and wide-ranging reading across both arts and sciences. This experience is evident in the breath-taking number of historical figures and topics that are covered within its 148 pages, from prehistoric rock art and Galileo t*he musician,* to modern espionage, big data, and "radical" new ways of detecting cancer cells. One might think that such coverage would lack depth but Ihde's ability to step back from detail, distil information gained from a lifetime's experience, and provide a framework within which it is possible to locate and critically examine past, present and (possibly) future technologies, negates any such thought. As one might expect in any conversation, personal anecdotes and occasional detours are employed to illustrate a point or pave the way for the next one. Ihde's hope is that this book will "be read as an opening to conversation."

To support those who use *Acoustic Technics* as a springboard for more detailed enquiry, he suggests other authors and leading texts in footnotes and references. At this point, it is worth highlighting a positive effect of the very technologies under discussion: easy access to the internet brings parts of the text to life in a way that would have been unthinkable less than a generation ago: for example, in Chapter 6, *Synthesizing Sound's* we learn that the first synthesizer, or electronic musical instrument, "appears to be Leon Theremin's 'theremin,' invented in 1920." Within a couple of clicks it is possible to watch Theremin play his own invention!

In *Acoustic Technics,* the Preface plays an important role in alerting the new reader to the first-person, narrative style of writing and to the book's overall structure. It is divided into two parts. The first four chapters in Part I are in "survey mode" and their broad perspective lays the foundations for the case studies in Part II which focus on specific themes and technologies such as medical acoustics and hearing devices, and "audiovisual" multimedia; from mobile phones to the advanced hybrid opto-acoustic devices used in art, music, medicine and science. Even within Part II, each chapter maintains its broad-to-narrow focus.

Chapter 1 opens in 1900 with the first of a number of Ihde's favourite "aha" moments in technoscience history; William Herschel's accidental discovery of "heat-light" or infrared radiation; that is, emissions beyond the visible spectrum. Finding "light beyond light" was a major phenomenological discovery" because until then the limits of human perceivable experience had been determined by the perceptual limits of the senses. From here, Ihde traces the discovery of other emissions that make up the continuum that we now call the electromagnetic spectrum, from "the longest radio (wave) to the shortest gamma waves." He asks, and later addresses the question, "how can phenomenology, better postphenomenology, deal with newly discovered phenomena of light (soon also sound) beyond even our whole body capacities?" Against this background, Ihde discusses the development first of optical and then of acoustic instruments used to image or detect, measure, and project light and sound emissions beyond the limits of human bodily experience. In the 20th century these linear development trajectories began to converge, triggering the explosion of the hybrid audio-visual/opto-acoustic technologies in use today.

Acoustic Technics is a slim volume and, perhaps, a little expensive, but it has changed the way I think about technology and it highlights the part we can all play in looking beyond the early hype of new inventions. According to Ihde, the technologies we invent "'reinvent' us as well" but, he asks, at what cost to "the embodied human perceiver"?

Nicola Miller *is an Honorary Research Fellow based at the University of Aberdeen's Biomedical Imaging Centre. She has a longstanding interest in the science underlying sound perception and its production, and the nature of the link between the ear and the voice. Her work has been published in the Journal of Voice* and, in March 2016, ***Psychomusicology: Music, Mind, and Brain.***

medicine-health

The Power of Liquid Sugar

David Lorimer

SODA POLITICS

Marion Nestle

Oxford, 2015, 508 pp., $29.95, h/b – ISBN 978-0-19-026343-0

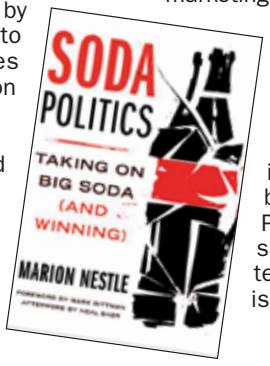
Marion Nestlé is Professor of Sociology at New York University and author of many books on the food industry, including *Food Politics*. Here she turns her attention to the soda industry, not only informing the general reader on the necessary background, but providing information for the kind of advocacy that takes on the industry with a view to drastically reducing its profits. The issue is all the more urgent with current rates of obesity and diabetes and applies to the nature of the food industry as a whole, not just soft drinks. As she points out in her introduction, the tactics used by the soda industry resemble those of the tobacco industry a generation ago and currently used by Big Food, Big Alcohol and Big Pharma.

Her research shows how 'food companies use marketing, lobbying, partnerships, and philanthropy to promote sales, regardless of how their products might affect health.' More importantly, the book explains how these four aspects of doing business are strategically related. Cigarette and soda companies 'both aim to sell as much of their products as possible, regardless of health consequences.' They promote consumption through massive advertising, much aimed at children and low income groups. Philanthropy is used to create goodwill and build brand loyalty, while lobbyists operate in Congress and they forge alliances with health organisations and researchers. The book explains these factors in detail, starting with the nature of the product and its effects on health, then moving on the industry and how it works in terms of targeting children, minorities and the poor. Softball tactics including recruiting allies, marketing corporate social responsibility, investing in sponsorships and partnerships, and defending the environment. Hardball approaches strenuously defend their turf and attack critics. Properly informed advocacy is regarded by industry as the greatest threat to their sales, and this book gives provides the necessary information on which to campaign.

Nestlé sets out the facts and figures relating to sodas and especially the big players, Coca-Cola, PepsiCo and Dr Pepper. A standard 12-ounce drink contains 10 teaspoons of sugar, so that the principal role of the other ingredients is to mask this sweetness. Incidentally, much of the high fructose corn syrup is GM, which explains why these companies support anti-labelling campaigns. Current consumption in the US is about one can per person per day, while 20% of people report drinking more than four a day. This habit affects not only obesity, but also teeth. Chapter 7 gives an overview of the industry, where the leader is Coca-Cola with annual profits of around $11 billion on turnover of $48 billion. Needless to say, this profitability gives the company enormous leverage as economic muscle is translated into political power, partly through the drinks industry trade group, the American Beverage Association.

As with the food industry in general, big soda argues that obesity is a matter of individual and parental responsibility, with personal choice represented as a fundamental freedom and sodas as having a place in balanced diets. From a PR point of view, the industry aims to avoid public criticism, head off government regulation and protect sales. In this respect, Nestlé outlines the strategies of emphasising devotion to health and wellness by reframing the issues and diverting attention to physical activity as well as introducing healthier product lines; selling to everyone everywhere, including children and minorities; building allies through philanthropy, partnerships and sponsorship; and protecting corporate interests by attacking legitimate science and the state as an interfering nanny, as well as forming advocacy groups disguised as scientific institutions. Throughout her treatment, Nestlé deconstructs industry arguments either through explaining in brackets what is really at stake or by setting out two columns of what the industry claims and how this can be countered by health advocates. Emphasising physical activity is especially important as one can see by major Coca Cola sports sponsorships including the football World Cup and the Olympics since 1928.

There is a separate chapter on marketing and whole sections on targeting children, minorities and the poor. These sections also contain guidelines for advocacy including getting sodas out of schools and putting a stop to inappropriate marketing. Nestlé gives a number of specific examples of marketing initiatives by Coca-Cola and PepsiCo aimed at the Hispanic and Mexican markets. She rightly contends that company philanthropy and marketing are inextricably linked to business objectives. PepsiCo is quoted as saying that their long-term profitable growth is linked intrinsically to



their ability to deliver on social and environmental objectives - marketing by another name but disguised as promoting health, investing in communities, supporting worthy causes and protecting the environment. For instance, Coca Cola and PepsiCo sponsor the Academy of Nutrition and Dietetics, and Coke supports the Beverage Institute for Health and Wellness where the talk is of energy balance, mindful eating, physical activity, hydration (sodas are an excellent source!), myths about dietary recommendations and translating scientific information into public health advice - in other words criticising scientific links between sugar and health and funding research that will support their message (see table on p. 263). These CSR 'healthwashing' initiatives are, however, dwarfed by advertising expenditure.

Chapter 20 is devoted to 'working from within', using the story of Dr Derek Yach who transferred from the WHO to PepsiCo - the treatment seems very fair to me, and contains a response from Dr Yach. The industry does do some good work in terms of the environment, but their role in water supply is ambivalent, especially when factories in developing countries result in a drastic fall in the local water table. As with the food industry in general, Nestlé shows how there is a revolving door between government and industry lobbies, fuelled by campaign contributions that can now be funnelled through PACs following a Supreme Court decision where a majority of judges were effectively supporters of Big Food and Soda interests. Industry organisations like the Centre for Consumer Freedom uphold personal choice and attack what they call the food police and meddling bureaucrats claiming to know what's best for you. Needless to say, Nestlé herself is a prime target as a member of the food police and 'one of the country's most hysterical anti-food industry fanatics with radical goals' – she can be proud of this prominent attack where she is one of the messengers to be shot.

So we effectively have a situation of Big Food, Big Tobacco and Big Soda vs. Public Health, a point forcefully made by the director-general of the WHO, Dr Margaret Chan, who herself has endorsed this book and accuses governments of prioritising big business over health. However, the kind of advocacy promoted in this hugely informative and well-written book is gradually making a dent on the junk food and drinks industry and Nestlé's conclusion also sets out best practice for advocates, encouraging readers to join the food movement 'to make adequate, safe, accessible, affordable, healthy and delicious food available for everyone, everywhere.'

The Source of Healing: The work of the healing medium Alexander Vonlanthen

Reinhold Ritter

Alexander Vonlanthen

Der Weg zur Quelle der eigenen Kraft: Freiheit im Licht, Sein, Jetzt

www.metacenter.ch, 2011, 190 pp., hardcover, ISBN 978-3-905922-03-5

Alexander Vonlanthen: Ein Leben zwischen Himmel und Erde

A documentary by Rolf Dietrich

www.metacenter.ch, 2014, 61 min., ISBN 978-3-033-04258-2 (German and Swiss German with English and French subtitles)

Alexander Vonlanthen

Offenbarungen: Weisheiten der Vollkommenheit

Teile 1, 2, 3 – three sets of cards, each containing 100 cards www.metacenter.ch, 2015

Alexander Vonlanthen is the Swiss Joao de Deus.

Joao de Deus, the Brazilian full-trance medium, is known all over the world, having treated millions of people. In Brazil, he and other healing mediums as well as prolific writing mediums, such as the late Chico Xavier and Divaldo Franco, both authors of hundreds of books, have helped shape one of the liveliest spiritual scenes, involving psychical surgery and spiritual healing.

Now somehow the phenomenon of full-trance healing mediumship has managed to jump to Switzerland.

By meeting Joao de Deus just ten years ago, towards the end of 2005, Alexander Vonlanthen, then a young Swiss man, has gained access to another level of consciousness, to healing and to the creative force. Since that time, an increasing number of people come to him for help, healing, and advice. Like Joao, Alexander will not claim to do any healing himself, but insists that it is God or the force within each and every one of us that does the healing. He will also explain that for healing to take place the person has to be ready. Accordingly, Alexander Vonlanthen's first book bears the title "Der Weg zur Quelle der eigenen Kraft" (literally: "The way to the source of one's own force").

Nowadays, Alexander Vonlanthen offers regular evening healing sessions, each lasting for about three hours. He does this in a number of Swiss towns and cities, such as Berne, Zurich, Lucerne, and others. These meetings are usually booked out long time in advance. Typically, Alexander will start the session with a talk, then go on to demonstrate the kind of healing that is effected through him by calling up two or three volunteers from the audience. After that he answers questions. This is followed by a meditation, during which a healing space is created for everyone present. No one leaves without having received some healing.

What is happening is an individual and societal phenomenon, equally intriguing from the viewpoint of living spirituality and cultural anthropology.

Alexander discovered his gift when – together with his wife – accompanying his mother to see Joao in Ulm. Standing in front of Joao, Alexander instantly went into trance. Joao and the Entities recognized Alexander's potential as a full-trance medium, placing him amidst the group of mediums supporting Joao, blessing and encouraging him.

In his book, Alexander describes how all of this was completely new for him. He underwent a genuine cultural shock. Until then, he had been a fairly easy-going young man, enjoying life and his young family, and holding a good job. Now this changed overnight. Suddenly he had to accommodate powerful energies running through him, forcing him to do involuntary movements, making him talk in an ancient strange language, utter strange sounds, and making him start healing people. Gratefully he acknowledges how only with the unceasing support of his wife, family and local community he could come to terms with this new situation and find his rightful place. He has given up his managerial position and now counsels, lectures and heals full-time.

He declares that he is always 'spiritually online' – connected at a higher level. When he does healing work, he goes into full trance. I feel privileged to have witnessed this many times. It is possible to have deeply meaningful dialogues with Alexander and the Entities, also on questions of physics, cosmology, or psychology, and get spontaneous answers that really seem to come out of another world.

Around Alexander there is evolving a circle of friends. Some of them are beginning to have similar experiences, albeit usually not so strong. These are doctors, scientists, psychologists, teachers, nurses and just local villagers. Some have discovered their own abilities to make trance music, do trance writing, and also trance healing, all of which Alexander actively encourages. Reporting to each other about their insights and experiences seems to bring about a deepening and quickening of the process. The perception is that there is a field of consciousness, which is contagious in

a highly positive sense, helping people to unfold and manifest hidden talents and creative power.

Recently, Alexander went through a ten-day process of receiving 300 sayings of deep spiritual content. These are the new cards. Many are of a Zen koan-like quality. The Entities expressing through Alexander address the fundamental questions of life:

Is there God? Who or what is God? Who is responsible for life? Is it God or man? What is the meaning of death? Is every action the consequence of something previous? Is it possible that every movement manifests in a form? What is free will? Is there such a thing as free will? How do I know whether I have decided freely or not? What is ethical behaviour? Could there be a code for right behaviour? Are there many realities? Many dimensions?

Alexander's whole work is strongly focused on awakening – an on-going and probably never-ending process.

The Alexander Vonlanthen phenomenon is an excellent example of a well-working relationship between a healer and the medical establishment, hospital doctors and scientists. It is deeply reassuring to see how local society manages to integrate the new and benefit from it.

Having Alexander Vonlanthen address the Network, will give members the chance to be first-hand 'participant observers' in a genuine experiment in higher consciousness.

Super-Cure or Just Hot Air?

Gunnel Minett

THE POWER OF YOUR BREATH

Anders Olsson

Creative Commons, 2014, 260 pp., illustrated, £7.24, p/b - ISBN 9 789197 615150
www.consciousbreathing.com

A secret key to reshaping our looks, body, health and weight sounds a bit too good to be true. In particular since it is all just about changing the way we breathe. But the book gives very compelling evidence as to how and why changing our breathing pattern can have such profound effect on us. And, as the author points out, breathing is one of the most important functions for all animals, human beings included. We can be without food and water far longer than we can be without oxygen. So why shouldn't it be that the way we breathe is enormously important?

One interesting aspect of our breathing is that it can be both an automatic process and a voluntary activity: we don't need to remind ourselves to keep breathing, our brain/body ensures this happens automatically. On the other hand, we can also take control over our breathing pattern. A downside of this flexibility is that we tend to use breathing as a way of controlling our stress level and the interaction between inner and outer worlds. The result of this is often incorrect breathing that leaves our body operating on a less than optimal level.

According to research presented in the book, most of us have several problems with our breathing. Many over-breathe i.e. take in too much oxygen which changes the balance of carbon dioxide in the blood, which in turn is the trigger for our breathing reflex. Here the positive side of our ability to breath flexibly comes in. By consciously retraining ourselves to breathe in an optimal way we can change the body's intake of air and reset it in the best possible way so as to maximise the body's 'working environment'.

The book is filled with examples of incorrect breathing patterns, why we have them and how to change them and the effects this will have. Although the title of the book mainly refers to the physical aspect of breathing, it also deals with the effects of incorrect breathing on the psyche.

Although we still have a long way to go to pay the same attention to breath-retraining in the western world, the situation is different in other parts of the world. Eastern knowledge and use of breath (re)training has very ancient roots.

The fact that ancient Greek traditions also paid attention to breathing can be seen in words such as *schizophrenia* that is derived from the root *phren* meaning both diaphragm and mind.

So, even if it does seem too good to be true, understanding how to breathe correctly does hold the key to eliminating stress, boosting the immune system and living a healthier and happier life. Plus, it's cheap and without side effects! (You can't be asked more than that of any cure.) This book establishes this conclusion without any doubt.

For the breathwork community this book should be of particular interest since it presents theories as to how to breathe that to some extent contradict common beliefs, particularly in Rebirthing and Holotropic Breathwork. Although previous attempts to bring together breathworkers of all schools of thought have not been very successful, perhaps now is the time to attempt this type of interchange again.

The fact that techniques, which focus on over-breathing or hyperventilation, can have results very similar to those which focus on the opposite, i.e. to slow breathing down and/or to breathe less, should trigger the curiosity of all breathworkers. And of course, curiosity is key to expanding knowledge - we should all have in common regardless of our starting point. Another thing we can agree about, regardless of school or technique, is that breathwork is a new and mainly unexplored area that we all need to learn more about.

Gunnel Minett** is the author of **Breath and Spirit.

philosophy-religion-spirituality

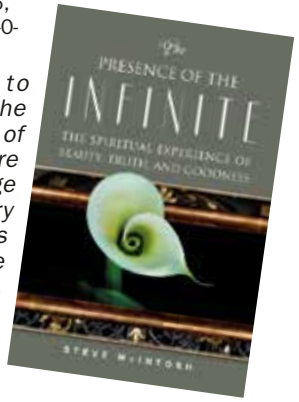
Visions of Infinite Perfection

Martin Lockley

THE PRESENCE OF THE INFINITE; THE SPIRITUAL EXPERIENCE OF BEAUTY, TRUTH AND GOODNESS

Steve McIntosh

Quest Books, 2015, 285 pp., $18.95, p/b - ISBN 978-0-8356-0941-8



It's coming to America first, the cradle of the best of the worst. It's here they got the range and the machinery for change. It's here they got the spiritual thirst. Leonard Cohen (Democracy)

Presence of the Infinite is the third Steve McIntosh I've reviewed for the Network. Following *Integral Consciousness* (***Network 97***) and *Evolution's Purpose* (***Network 109***), Steve now completes a spiritual trinity of expositions aspiring to formulate a "mature and sophisticated" *evolutionary spirituality* (his italics). While constantly touching on universal themes, Steve's first chapter *Spirituality in America* has a telling subtitle: *in search of leadership*. With considerable enthusiasm Steve hints, sometimes directly, that his vision of evolutionary spirituality transcends and includes other forms

of spirituality. Steve regards all worldviews as modes of spirituality saying that religious (traditional) secular (modern), and progressive (post-modern) options are available in the "spiritual marketplace." But each he says has its shortcomings such as "off-putting elements of New Age culture."

Nevertheless, he remains "optimistic… that a new kind of spirituality is looming on the horizon of American history," and says "how it could gain currency in America's fragmented culture is the primary focus of…this book." [Although the marketplace and currency metaphors are perhaps stereotypically American, they are juxtaposed with a persistent goal and vision of infinite perfection which has the potential to inform (evolve) our finite existence and help us "participate in the gradual perfection of the finite cosmos."] "Admittedly" says Steve "this is heady stuff" based on the premise that evolution is progressive and has a "purpose," as explored in his last book. This premise goes hand in hand with Steve's panentheistic world view that the infinite is both transcendent and immanent. Clearly this vision of evolutionary spirituality is trans-rational or trans-conceptual and firmly rejects the notion that "our beautiful cosmic home is just a random accident with no larger meaning." This brings us to "meaning" which, as Steve explores, revolves around and appreciation of the perennial values of beauty, truth and goodness. If I understand Steve, and I like the metaphor, these values are not merely values to be passively appreciated but ideals to be actively practiced or "metabolised" in order to raise consciousness and advance evolution. By their fruits you shall know them.

Presence of the Infinite is certainly a fruitful exposition with, as noted previously, high ambitions to define a newly emergent "evolutionary spirituality" that transcends progressive spirituality. In doing so Steve promotes himself, along with 13 other named individuals, as one of the contemporary teachers in the field in America, while contending that "authentic evolutionary spirituality… is still very rare." I need not comment in detail on Chapter 3 on "Spiritual experience from an evolutionary perspective" since most SMN members would likely recognise that such experiences are profoundly transformative for individuals and the communities they may influence through example and teaching. Steve admits that Chapter 4 is "philosophically dense," [I agree]. Returning to the panentheistic theme of *infinite being* and *finite becoming* (his italics), Steve postulates "the inherent perfection of the pre-existing infinite" as the backdrop to our "finite experience of becoming more perfect by our own choices and efforts." Chapter 5 on "Contemporary Spiritual Currents: progressive and nondual" is a readable and masterfully concise, historical, cultural analysis of progressive spirituality as it has unfolded in western culture, since Emerson and Thoreau, but especially since the consciousness 1960s. Here brief reference to commercial success of best-selling gurus is relevant as cultural anthropology. The chapter ends with interesting comments on the polarity between nondual and theistic modes of spiritual experience, and Hans Küng's distinction between mystical and prophetic piety made me ruminate on the inherent inward and outward or introvert and extrovert facets of the human psyche.

For much of the rest of the book Steve grapples with the implications of the polarity between the non-dual experience of universal void (non-self) and the experience of a personal, loving creator (dualism of lover and beloved), arguing that these different experiences both arise from direct spiritual experience, not doctrine, but nevertheless generate different theological interpretations of ultimate reality. Put another way, personal spiritual growth (individual soul development) seems pointless if there is no real self, or that self is already perfect once realised. Ostensibly such non-self doctrines deny the agency of free will, the point of self-awareness or any intention or purpose in the evolution of the universe. Related to this theme Steve holds that "while evolutionary spirituality admits the finite is less real than the infinite, it cannot accept …that the finite universe is an illusion." It is difficult to argue with his view that "ultimate reality possesses the qualities of awareness, intelligence, intentionality, creativity, and love— qualities that are unmistakably personal."

In chapter 7 Steve takes on Ken Wilber, as he has before, for his claim that "theistic traditions rank lower than nondual ones." He then uses the Yin Yang of Tao as a potentially integrative philosophy. Such theological ruminations require a sharp Wilberian intellect, and Steve's legally acute mind is up to the challenge. He draws his exposition to a close with a list of five prerequisites for the emergence of a new evolutionary spirituality. These involve recognition of the aforementioned polarity between world views and the potential to debate, understand and even integrate them thanks to " science's stupendous discoveries of …evolution, and the confirming…of …spiritual experience."

I was most intrigued that in his final speculations on a future synthesis Steve transcends and includes (his favourite mode of transformation) dualism and polarity with a 3-fold or triadic unity model or tri unity: "the three, that are two, that are one"), which is not only inherent in the thesis, antithesis, synthesis dialectic, which Steve has often discussed, but also very anthroposophical and Steinerian. Steve does not mention this tradition, but to cite a simple example there is a 2-fold male-female gender polarity, but it is incomplete until integrated to synthesise, a synergistic new future generation (by recombination no less!). As anthroposophists sometimes say, nature shows the way. The 2-fold combination of I and you creates the trinity "we." Anything that mediates a twofold 'system' becomes threefold.

As I know Steve, let me end by commenting thus: Steve betrays his inherent optimism, enthusiasm and motivation when he writes that "in its essence, the evolutionary impulse is the desire for the transcendent …a kind of perfection hunger" for communion with ultimate spiritual realities. What Leonard Cohen so cogently called "spiritual thirst." Here Steve captures the essence of the "seeker" the very human aspiration for higher self, or perfection hunger, that I have often thought worthy of a book length treatment. This is not just a personal longing which Steve says has been with him since aged 12, but it is a longing for a spiritual renaissance for all of humanity. A noble aspiration indeed and one that will only come about if seekers like Steve continue to dedicate themselves to cultivating and metabolising the values of beauty, truth, goodness and spiritual growth. From this vantage point we may, like Steve, aspire to visions of infinite perfection.

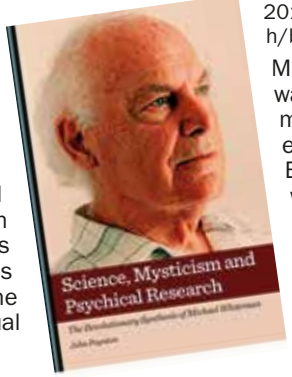
A 20th Century Swedenborg

David Lorimer

SCIENCE, MYSTICISM AND PSYCHICAL RESEARCH

John Poynton (SMN)

Cambridge Scholars Publishing, 2015, 198 pp., £47.99, h/b – ISBN 978-1-4438-8019-0



Michael Whiteman (1906-2007) was a physicist, mathematician, musician and mystic who was an early member of the Network. Elsewhere in this issue, readers will find an outline of his revolutionary work by the author of this book, John Poynton, himself a biologist who knew Whiteman for over 40 years. I agree with Stanley Krippner, who, on the back of this book

likens the summarising of Whiteman's work to capturing a rare tropical bird and rendering his ideas accessible in a series of short and clearly written and referenced chapters. Given his three areas of interest in science, mysticism and psychical research, this is a very important book for Network readers as Whiteman had a deep knowledge allied to extensive personal experience - some 7,000 experiences are recorded in his diaries. The five sections and 32 chapters cover the basics of his thinking, the house of personality, spiritual development, elements of mystical experience and an overview with a technical appendix on the mystical derivation of physical laws. Incidentally, these three main areas also correspond to the sections of another important book written by a member Raynor Johnson, *The Imprisoned Splendour.*

As readers will appreciate, on the predominant view in science is still what Whiteman calls one-level naturalism, which cannot in principle explain psychical and mystical experiences - it can only try to explain them away. Whiteman's method is what William James called radical empiricism based, like Swedenborg, on self-evident and repeated direct observation. This also represents a deeper phenomenology of actually penetrating appearances, and produces a systematic and rationally coherent testimony. One important parallel between physics and mysticism is the translation of potential into actual, essence to existence, the integration of subjective and objective. Anything external is by definition actual: the one instantiates the other.

A key postulate for Whiteman is the existence of other nonphysical spaces giving a multifrequency and interpenetrating picture of which he himself had direct experience. Instead of using the term out of body experience, he uses 'separative experience' and distinguishes various levels. These experiences all take place in such parallel spaces, which makes sense both of the phenomenon and of the occasional discrepancies noticed. For such phenomena to be taken seriously, we need an analytical – deductive approach rather than a hypothetical – deductive; the former applies conceptual analysis to a problem or observation (p. 33) beyond the confines of one-level naturalism. It is also important to realise that other spaces also exhibit extension and position in relation to nonphysical sensing. Whiteman describes the necessary skills of Active and Continuous Recollection that have to be developed in this sphere. He also outlines a complex 16-fold objective and subjective cycle.

A chapter on the influence of Kant draws on his scathing book about Swedenborg, *Dreams of a Spirit Seer.* Kant initially satisfied himself of the veracity of some of Swedenborg's experiences, but could not rationally make sense of them within his limited scheme. He even regarded a positive interpretation as a corruption in the use of reason, setting his own limits to its use. As John points out, Kant was simply wrong, but this has not prevented mainstream philosophers from following in his footsteps and those of David Hume. However, we are now steeped in the influence of Eastern philosophies that have a quite different approach to consciousness and reality. Whiteman studied these in detail produced his own edition of the Yoga Sutras, commenting that many translators had misunderstood such texts because they themselves were not mystics.

I found the section the on corporate structure of personality particularly interesting. Whiteman's model consists of a core identity or individual in charge (representing a time-transcendent line of consciousness), influenced by contributory minds. What we call personality is a combination of these factors. Whiteman had a particular interest in criminal psychology, entailing the issues of free will, responsibility and punishment. He felt that current psychology had an inadequate model and that many crimes occurred because the individual in charge was overwhelmed by a contributory mind, which might even represent a form of spirit attachment (a number of cases are discussed). This model also has interesting implications for the interpretation of the work of Ian Stevenson, as contributory minds also have memories of the individual life that may give rise to children remembering previous lives - Whiteman corresponded with Stevenson about this, and suggested that many of his cases were a form of 'loose' reincarnation. Perhaps those including birthmarks could represent a deeper level. Interestingly, Swedenborg's interpretation corresponds closely with that of Whiteman in postulating a form of attachment rather than reincarnation.

Whiteman sees the process of spiritual development as becoming open to the universal I AM beyond the blocks of a separate sense of self (*atta*). This means developing the capacities for recollection already noted and moving towards selflessness and nonattachment; put another way, towards the True and the Good: 'a creative light of Life itself, streaming forth in Love and Understanding, and forming all other lives out of its substance: a Light become Life not through addition to material light, but by the removal of the impurity of fixation.' (p. 133) At another level, this means the practice of faith and obedience where 'self gives place to the underlying core identity.' This is what is meant by dying before you die, becoming a channel of Loving Wisdom (p. 150).

What makes the book, subtitled 'the revolutionary synthesis of Michael Whiteman' so important is precisely this synthesis of science, mysticism and psychical research at a time when, as John observes, the formalisms of established religions, classical science and materialist philosophy are disintegrating. Whiteman was a pioneer in this respect, and John has done readers an enormous and indeed Herculean service by introducing his work in such a clear and systematic fashion. There is a great deal to study here before moving on to Whiteman's own books. This is not only a matter of reflection, but also of applying these ideas to our own lives as we ourselves must experience our own disclosure and transformation through an encounter with the Divine Source.

The book can be ordered through John Poynton at jp@johnpoynton.com

John Poynton's book has been awarded the 2015 Network Book Prize as the most significant book published by a member in 2015

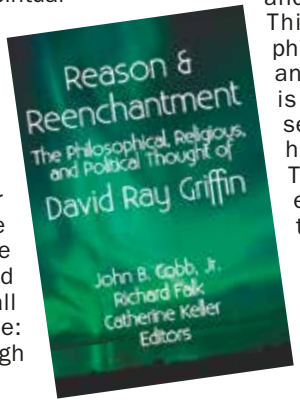
A Bold Thinker

David Lorimer

REASON AND REENCHANTMENT

Edited by John B. Cobb Jr, Richard Falk and Catherine Keller

Process Century Press, 2013,
448 pp., $27.95, p/b –
ISBN 978-1-94044-7001



David Ray Griffin is Professor of Philosophy of Religion and Theology, Emeritus, at Claremont School of Theology and Claremont Graduate University where he is still co-director of the Center for Process Studies. He is the author or editor of 35 books in theology, philosophy, philosophy of religion, the relation between science and religion, and social, ecological and political issues. This book on his philosophical, religious and political thought is the outcome of a seminar held to mark his 'retirement'. There are fourteen essays covering the full range of his interests, followed by 60 pages of Griffin's responses and an account of his intellectual

journey. This last chapter is a good place to start as he outlines the major influences, including Paul Tillich and that of one of the editors, John Cobb. He heard a lecture by Aldous Huxley, and was captivated by Cobb's seminar on Whitehead's philosophy and its religious relevance. In Germany, he heard Pannenberg expounding his theology then, back in Claremont, he deepened his acquaintance with Whitehead. In the meantime, he had also acquainted oneself with philosophy of mind and para-psychology. He was also formulating his thoughts on global democracy and global ethics, on naturalism and religious pluralism, and, more recently, on imperialism and the inadequacy of official accounts of 9/11.

For those who are not familiar with him, A.N. Whitehead (1861-1947) was a mathematician and philosopher who taught Bertrand Russell and later collaborated with him on *Principia Mathematica*. He was an expert in the history and philosophy of science and went on to teach at Harvard from 1920s on. His major work is his Gifford Lectures published as *Process and Reality*, and which I read during the summer of 1983. Whitehead invents his own terminology and, while he has had considerable influence in many fields, his work is less well-known in mainstream British philosophy. Once one has really taken on board what Whitehead has to say, one cannot continue to do philosophy as before. In this book, he is quoted as saying, 'it belongs to the self-respect of intellect to pursue every tangle of thought to its final unravelment.' Sandra Lubarsky is right in saying that this approach typifies David Griffin as he is not prepared to take things at face value without thinking them through for himself from first principles.

Moreover, he has done much of his work in unpopular and unfashionable areas. Whitehead himself was not directly interested in parapsychology and, as John Cobb observes, it is a generally unacceptable topic in the University. Hence most Whiteheadians ignore it in the same way as theologians and philosophers in general. Theologians tend to be embarrassed by strong affirmation of evidence for life after death rather than seeing it as confirmation of their theological views. For Griffin, as John Cobb remarks, the truth of the statement is more important than its acceptability in one community or another. It leads him to regard life as a real spiritual adventure.

Griffin has elaborated a number of new terms such as panexperientialism, constructive postmodernism and non-supernatural naturalism. These make important distinctions and contribute to a refinement of thought. He prefers panexperientialism to the more popular panpsychism, asserting that experience is fundamental as a basis for consciousness and freedom that is denied by the prevailing scientific picture. His view is naturalistic without being materialistic, and Griffin is very careful to define various forms of naturalism so as to situate his view within a non-dualistic worldview. He proposes a 'non-dualistic, neoanimistic, panexperientialist philosophy, in which experience and spontaneity are fully natural features of the world, characteristic of nature at every level.' Parapsychology becomes a real possibility in such a view, as does life after death, on which Griffin has written at length. However, he cannot accept the evidence for precognition at face value as he regards it as a contradiction in terms. He upholds the causal efficacy of minds against epiphenomenal views, and exposes the limitations of materialistic philosophical premises. His constructive post-modernism has exerted considerable influence in China, as one of the essays shows.

Griffin's courage has more recently been in evidence with his forensic analysis of the inadequacies of official accounts of 9/11. His initial interest was American imperialism whereby America claims to be a good empire. This claim disintegrates when one reads the series of 10 books that he has written on this topic and it becomes clear that the Iraq war was justified by 9/11 as a false flag operation.

The initial book, *The New Pearl Harbour,* summarises the main arguments against the official theory and was available to the authors of the 9/11 Commission Report, which did not provide a rebuttal of his arguments, preferring mainly to ignore them. Needless to say, it was difficult to find a publisher for this first book, but it sold more than 100,000 copies. I have reviewed all these books in previous issues of Network Reviews. Tod Fletcher provides an excellent summary. Griffin himself under-scores the relevance of 9/11 as a theological issue in the tradition of Old Testament prophets denouncing corruption and injustice.

Since the book was published, Griffin has taken on an entirely new field with his authoritative study of global warming, *Unprecedented,* which I reviewed in the last issue. Again, it is typical that he looks at the evidence from all angles and comes to his own conclusion. He is an exemplar of integrity and moral courage whose work deserves to be better known, and there is no better introduction than this volume.

A Turd in the Punchbowl

David Lorimer

SPIRITUALLY INCORRECT ENLIGHTENMENT

Jed McKenna

Wisefool Press, 2004, 305 pp., $21.95, p/b.

This rather striking image conveys something of the tone of what the author calls the unadorned reality of the awakening process, in contrast to the spiritual merry-go-round that he thinks is simply a distraction from or avoidance of the real work. He makes this remark at a party of well-meaning friends, all of whom consider themselves spiritual and ethical but whose lives are effectively an expression of distraction, escape and spiritual materialism – in other words, like most of us, they are making a compromise between the ultimate demands of a spiritual calling and the need to fit into society. In this respect, Jesus was extremely radical, calling for his disciples to leave their families and for rich people to give away their wealth – he expected real transformation, a second birth, while more comfortable churchgoers prefer to be saved rather than transformed. This keeps them in a state of soothing dependency rather than undergoing the agitation of finding the truth out for ourselves and becoming our own authority.

The central figure in the narrative is Captain Ahab from Herman Melville's *Moby Dick*. For McKenna, he embodies the breakthrough archetype with his single-minded, obsessive pursuit of the whale: pursuit of truth, truth at any price. The uncomfortable message of the book is that few people are prepared to pay this price, but if we don't then we are skimming along the surface without plumbing the depths of life. The reader understands this process of spiritual autolysis through a selection of emails from a woman called Julie, who used to be a journalist covering spiritual matters - she lit plenty of candles and practised yoga and meditation, but this did not lead to the transcendence of the ego. For McKenna, this involves negation, even vastation: 'seeing what needs to be killed, killing it, and cleaning up the mess' or processing the loss after releasing any sense of attachment that forms a component of the ego. The process is one of stripping and cutting away, dismantling and deprogamming the ego and its inherent sense of separation. In this way, extreme

suffering is a potential spiritual opening, as one also learns from near death experiences.

A vivid example occurs in a conversation between the author and his friend Barry who talks about another Catholic friend in a desperate state. Barry wants to know how he can help, but for Jed this kind of rescue and reversion to normality is not at all desirable. Suffering, loss and death are life's wake-up call and he is not interested in helping anyone feel better: 'I dwell in an infinite pitiless void'. In this sense, if he is not upsetting people, he does not feel he is doing his job properly (this becomes very amusing in some exchanges with a publicity agent about the message of his books). He does not take the view that there is anything wrong that needs fixing since 'I reside in a perfect universe where nothing can ever be wrong. We all do, I just happen to know it.' Truth has no confines and is beyond opposites while duality and ordinary life is a form of dreaming, from which most people have no wish to wake up. For him it is also vanity – there is no right and wrong, no better or worse – in a slightly different sense to the message of Ecclesiastes. McKenna advises Barry's friend to stop struggling, clinging and resisting but rather to release and break through by breaking down.

McKenna further explains this in terms of the hero's journey, with flesh on one side and spirit on the other. At some point, an event can put us into freefall and thus into the process of death and rebirth. We experience fear, doubt, denial, avoidance and resistance. This death of the ego is what mystics refer to as dying before we die, and it is a process described by Monika Renz in *Transition,* her book about actual dying that I reviewed in the last issue. This is not only the overcoming of a sense of separation quintessentially characterised by fear, but also the realisation, expressed in a quote from U.G. Krishnamurti (not Jiddu) that 'understanding is a state of being where the question isn't there any more; there is nothing there that says "now I understand!"' As McKenna puts it, the desired answer is always the removal of the obstruction a correct question represents. Further on, he quotes Krishnamurti again with the subtle insight that 'what prevents you from understanding what you want to understand is this very thing which you are using to understand things'. Ignorance is the essence of the separate self. At one level, this represents the dialogue between the left and right hemisphere, where the left claims that understanding can only be linear and analytical, while the right intuitively grasps the whole. At another, the realisation that oneness is not graspable and expressible but can only be experienced.

The argument of this book stands in stark contrast to self-help books in general, since its premise is that we should dismantle rather than improve the self. Many other writers encourage the move from ego to Self but the question is whether they are in fact keeping the ego structure intact at a higher level. There is arguably nothing intrinsically wrong with this – it just doesn't complete the process described by mystics that includes a dark night of the soul leading ultimately to the unitive life. Although the move beyond opposites is well described in this book, the emphasis on destruction and deconstruction leaves the reader in an almost amoral state of not caring and considering all events quite impersonally. For me, there may be great wisdom in this approach, but the embodiment of love and compassion are missing. Buddhism and Christianity both emphasise the marriage of love and wisdom and the Sage or Saint embodies both. Clarity is not enough; indeed, it is just harsh without the accompanying expression of love.

Reflecting on this review, I remembered that (p. 235) there was an interesting passage where McKenna explains his view that by our standards dogs are the most advanced beings on the planet. I'm not sure about being self-realised, but it is certainly true that they are loyal, love unconditionally, forgive instantly, are empathetic, always in the moment, not carrying the past or fretting about the future. Quite something to live up to!

Ich Dien

David Lorimer

SPEECHES AND ARTICLES 1968-2012

HRH The Prince of Wales

Edited by David Cadman and Suheil Bushrui

University of Wales Press, 2014, 963 pp., £250, two-volume cased h/b – ISBN978-1-78316-196-6

Members of the Royal family are brought up in a tradition of public service and duty perhaps most directly expressed in their patronage for many charitable causes - the Prince of Wales's motto above simply means 'I serve', which he has done for nearly 50 years, and in his case by setting up many charities of his own and becoming the largest charitable entrepreneur in the country. Some readers will know that I published a volume about the relationship between the Prince's philosophy and his work, *Radical Prince,* in 2003. An abridged paperback came out in 2004, and has been translated into French, Dutch and Spanish. Then, in 2011, the Prince published his own work *Harmony,* with Ian Skelly and Tony Juniper. This book sets out the underlying principles of the Prince's work. Now, David Cadman and Suheil Bushrui have brought together a major collection of the Prince's speeches and articles, a project that emerged from the publication by the University of Maryland of two collections of speeches and articles for use by students on Professor Suheil Bushrui's course, The Spiritual Heritage of the Human Race. These were translated into Arabic and an editor described the book as a perfect example of a universal message by a great world leader. The editors have added extensive introductions to each of the sections and the book is illustrated with a few fine watercolours by the Prince himself.

© Hugo Burnand

As the Prince observes in his own foreword, he is asked to give a great many speeches, some of which call for considerable thought and reflection, giving him the opportunity to expound 'the set of principles and outlook guide and shape all my work' - that at the heart of which is harmony. One can appreciate in the development over more than 30 years how the Prince has proved prescient in many areas: 'warning of environmental degradation and resource depletion, highlighting the importance of helping young people achieve their true potential, encouraging businesses to care for their communities, supporting planning, architecture and design of a human scale and local identity, exploring the proper relationship between orthodox and complementary healthcare, and encouraging understanding and respect between religions and cultures.' All these, as he says, 'have proved to be real problems requiring attention and action.' It is important to note that the speeches and articles appear in the original form, often as spoken.

Although the primary purpose of these volumes is as an archive, they do tell the story of our generation through the integrated perspective of the Prince and enable readers to realise for themselves the importance of his central principle of harmony. Readers will also be aware of 'expert' criticism of many aspects of his work, but the Prince has not shrunk from engaging in important and substantial matters of principle and going against the materialistic and utilitarian spirit of the age, standing up for timeless wisdom in an epoch of information overload. The book is divided into eight parts: harmony; farming, fisheries and forestry; climate change; architecture and the built environment;

medicine and health; society, religion and tradition; education; the Prince's Trust and business in the community. Within these headings is a vast range of topics addressed in different contexts, sometimes named lectures such as the Dimbleby Lecture, the Shakespeare Birthday Lecture, The Sir Albert Howard Lecture, and various anniversary occasions provide a platform for the Prince to give a more detailed account of his views.

One of his fundamental points is that we suffer from a crisis of perception, thinking of ourselves as separate from nature, each other and the Divine. The way we perceive things shapes our values and in turn our behaviour. If we feel disconnected from the Earth, then we feel more justified in manipulating it for our own ends. It makes a great deal of difference if we regard nature fundamentally as sacred. Many people have criticised the Prince for what they regard as one-sided views, without realising the one-sidedness of their own viewpoint, which they take for granted. The Prince is always about bringing together rather than excluding, about a both-and rather than in either-or approach. His underlying philosophy embraces holistic science, integrative medicine and the agro-ecological approach to farming. Hence his criticism of a purely reductionist approach in science and medicine and an exclusively industrial approach to farming.

I was struck by a speech given by the Prince in 1969 at the age of 21, celebrating the life of Gandhi, 'who took tea with my great-grandfather wearing just a loin cloth and sandals, and who succeeded where no one else had in helping to replace my great-grandfather's title of Emperor of India with that of Head of the Commonwealth.' He observes that 'I myself have discovered in a small way that it is perseverance that counts, even if you are frustrated 10 or 20 times over.' He has been able to confirm the truth of his own words in his subsequent experience and the sustained need for, as he put it, 'effort, willpower and self-discipline.'

In the epilogue, the editors observe the strong vein of service running through the Prince's work, with a special emphasis on the individual in community. This is by no means abstract, but is always driven by 'specific concerns for particular people in particular places at particular times' involving the real issues they face, whether this is young people and their potential, hill farmers, stricken pubs, disappearing breeds or broken communities. He is driven by a passion to do what he can to help and especially for education in the broadest sense, which he has supported in many different ways, recently through his Teaching Institute with its summer schools designed to ask fundamental questions and rekindle the passion of teachers. The reader comes away from the volume with a strong sense of the Prince of Wales's vision and commitment towards a better world for our children not only in terms of environment and communities, but also a richer inner life informed by beauty, compassion and wisdom. Given that the book is an expensive purchase for the individual, I would encourage readers to order it through their local library.

consciousness studies

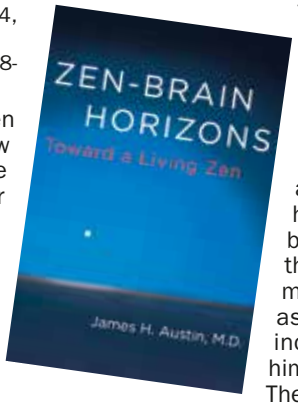
Zen Brain Horizons

Peter Fenwick

TOWARDS A LIVING ZEN

James H Austin (SMN)

Massachusetts Inst. of Technology Press, 2014, 616 pp., £19.95, p/b - ISBN 978-0-262-02756-4



I confess that I've been a little tardy in my review and I must apologise to Network readers for depriving them of the knowledge in another golden book by James Austin. You may remember that at the end of my review of '*Meditating Selflessly* I felt that James had moved away from science to practice. The practice that he described in that book was so comprehensive, clear, helpful and far-reaching that I felt there could be little more to say about meditation and the science of meditation. But I was wrong. Completely wrong. His magnificent new book *Zen Brain Horizons, Towards a Living Zen* continues the thrust of Zen practice and science and how they are interlinked. In a field which is burgeoning and expanding James has again put the finger of science on the growing point, to point to the ultimate truth that is manifest through Zen.

The book's cover in many ways says it all. A wonderful night sky, the dawn breaking with the morning star just above the horizon. As James goes on to tell us, the visual horizon is enormously important in our understanding of the neuroscience of Zen and the practice of Zen sitting. The book begins with a quote by Ralph Emerson (1803-1882). "*It is a secret which every intellectual man quickly learns, that beyond the energy of his possessed and conscious intellect, he is capable of a new energy (as of an intellect doubled on itself) by abandonment to the nature of things*." In a personal introduction James reminds us of his own two experiences. In the first, he was "*astonished to discover how clear my awareness became after my intrusive word thoughts stopped*." He then goes on to remind us of what he has already written about in *Zen and the Brain* and *Zen Brain reflections,* what happened when he entered a state of Kensho, "*My entire psychic sense of self suddenly dissolved while I was travelling to the second day of the retreat in London*. "

It is important to note his indebtedness to William James and the Buddha Siddhartha. He opens the book with two stories concerning two different old men who consult the Buddha. In the first story the old man asks to be informed about the spiritual path and also, as he has not much time left, about the cosmos and the afterlife. The Buddha refused to answer these latter points but did discuss the spiritual path, 'just give up your attachments'. On a second occasion the old man again asked the Buddha fundamental questions about the universe, indicating that he was still highly attached in his meditations. The Buddha told him to give up all attachments; when he has done so he will then be beyond pain and bliss. In the second story again an old man, long practised in Zen, asks the Buddha – at a very inconvenient time – to help him with knowledge of the path. The Buddha is finally persuaded to give him almost the same message he gave to the first man. Upon hearing this message the second man immediately awakens and drops all attachments. His self disappears and he became beyond pain and bliss. These two stories illustrate the need to bring attention back from the thought world again and again, to give up wanting, needing, trying, so that attachments drop away and the world is revealed in its pristine state to the unencumbered mind.

Neuroscience has defined two systems; the attentional system, which is mainly the ventral brain, and the default system, or that of the idling brain, which is the dorsal brain. These two systems oppose each other. The default system is when the self becomes uppermost, when we chat to ourselves, think thoughts that are internalised. It is when we tell ourselves stories, live in the past and the future, in fact anywhere but in the here and now. The ventral brain, the allocortex, gathers information about the outside world and is not involved with the self and its 'dreaming.' What is immediately apparent from this description is that these two systems are polar opposites. The ventral brain

deals with the here and now, while the dorsal brain deals only with the past and future and is thus where our attachments, likes and dislikes, plans and hopes lie. The way of Zen is to continually rebalance the moment so that the ventral brain takes precedence and we move steadily along the path of reprogramming ourselves to be what is rather than what we hope to be. We should note how important this chapter is, as it is right at the cutting edge of the current thrust of consciousness research into non-duality. The non-dual person, usually after an awakening, has lost their narrative self (a much better word than ego) and is happy and free from suffering. A small section on Buddhist botany brings the chapter to an end.

Chapter 5, *A glimpse of 'Just This' in the Tang Dynasty,* looks at attention and awakening in Zen history, and gives a wonderful picture of various moments of awakening in response to different circumstances. The chapter ends by describing William James's huge contribution to elucidating the mind, streams of thought and religious experience: As James Austin says, "*The 17 essays in 'The Heart of William James' still pulse with systolic prescience. They exemplify a distinctive sensibility for today's readers who seek authentic psychological insight and spiritual nourishment".*

James gives a comprehensive picture (Chapter 8) of recent research relating to attention, the self, and the effects of meditative states. In Chapter 10 he looks more deeply into attention and awareness and relates these to awakenings, both superficial and deep. He then goes on to give excellent case reports of the significance of elevating the gaze above the visual horizon, and hear we now see why the book is called Zen Brain Horizons. He refers back to the pictures shown in his previous book (Meditating Selflessly) of the quadrants of the visual field. The two upper allocentric quadrants relate to the distance and the 'not-self' whereas the two lower quadrants relate to the self and our egocentric processing. In his two case reports he describes how raising the gaze while describing a traumatic event allows the pent-up emotion stored in the memory system to be dissipated. These case reports show much the same results as EMDR (Eye Movement Desensitisation and Reprocessing) which is the side-to-side scanning of the visual field while reciting the traumatic event, but James points out that he has not seen a report of EMDR which refers specifically to elevation rather than side to side.
Many of us will have read accounts of the siddhis, which, when they first develop are associated with colours being seen during meditation. As the meditator becomes more advanced, colours are seen surrounding people which have a personal meaning for the meditator. James describes the soft greens that arise in the upper left quadrant when the person is thoroughly familiar with Zen meditation and is relaxed throughout. The green colour eventually moves more centrally, changes to purple, and may arise in the same top left quadrant. After examining fMRIs of meditators James decided that this is probably the result of allocentric processing activating the fusiform gyrus where colours are seen.

The book ends with a fascinating chapter about possible future directions of research and the consequence that this will have for our understanding of Zen, Kensho and enduring happiness.

Will James write another insightful book on Zen? This time I'm not going to predict that there is nothing more to be said. I'm sure – and I hope – that there will be, so long as James continues actively to follow the current science and relates its revelations to the Zen process. Perhaps we can sum up the story so far with a haiku.
Is 'Just This' really
All we need for happiness?
Yes, it would seem so!

Dr. Peter Fenwick *is President of the Network.*

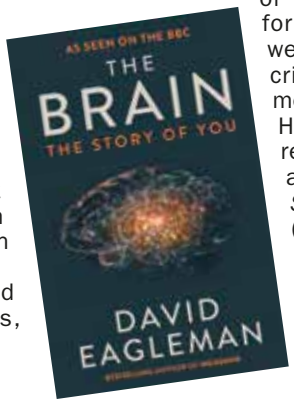
'I' Today but Maybe not Tomorrow?

Robert Charman

THE BRAIN: THE STORY OF YOU

David Eagleman

Pantheon Books, New York, 2015, 218 pp., Illus. £13.60. h/b - ISBN 978 1 101 87053 2



Dr Eagleman directs the Laboratory for Perception and Action and the Initiative on Neuroscience and Law at Baylor College of Medicine, Houston. His research interests are neuroplasticity, time perception, synaesthesia, visual illusions and the developing field of neurolaw (the implications of neuroscientific findings for the basis on which we make laws, punish criminals and formulate methods of rehabilitation). He has published over 90 research papers, is the author of *Incognito: the Secret Lives of the Brain* (2011), co-athor with Dr Richard Cytowic, Clinical Associate Professor of Neurology, George Washington University Medical Centre, of *Wednesday is Blue: Discovering the Brain of Synesthesia*, co-author with Dr Jonathan Downar, Assistant Professor, Department of Psychiatry, University of Toronto, of *Brain and Behaviour: A Cognitive Neuroscience Perspective* (2016) and was the writer and presenter of the six hour television series *The Brain with David Eagleman.*

This book, which includes numerous neurological case histories, is a model of lucid writing accompanied by excellent illustrations. It is referenced by chapter end notes and ends with a glossary of terms that does not include an entry concerning spirituality, parapsychology, life after death or any related heading. Why, then, does it merit a review in the Network Review? The answer is that if Dr Eagleman is representative of the neuroscience community as a whole it presents the latest consensual thinking across the neurosciences concerning the relationship between brain and mind or, to be more accurate, between brain activity and mental activity including consciousness and sense of self. Whatever theories are formulated concerning the nature of psi, soul or spirituality we must start from what we know, or can reasonably infer, concerning the brain-mind relationship. From the standpoint of a neuroscientist Dr Eagleman synthesises our present knowledge of this relationship in six chapters headed *Who am I? What is reality? Who's in control? How do I decide? Do I need you?* And *Who will we be?* If these fundamental questions do not attract your immediate interest I'm at a loss to think what will.

According to Eagleman the basic premise of the neurosciences including neuropsychology is that each human mind (taken here as a collective noun including all forms of mental activity from the subconscious through everyday consciousness to whatever exalted state of meditative, spiritual, or transcendental experience one can aspire to) is an emergent property arising from the coordinated activity of billions upon billions of densely packed nerve cells, their trillions upon trillions of interconnecting circuitries carrying billions of bioelectrical impulses across a range of frequencies from 1-100Hz^{+} throughout the brain and cerebellum without cease. Feed into this mix incoming impulses from all our sense organs, outgoing motor impulses activating our muscles to move our bodies, sensory return impulses from skin, joints and tissues saying what is happening to our body 'out there' together with the sympathetic and parasympathetic nervous systems controlling all our viscera, and one can obtain an impressionistic glimpse of our brains 'humming' with bioelectrical activity.

The premise that mind is an emergent property of brain and therefore dependent upon brain is an inference based upon the vast banks of data accumulated over the last two hundred or so years from worldwide clinical investigations and laboratory research findings. We do not know how our conscious awareness and sense of self arises from apparently non-aware physical brain processes but, the neurosciences say with one voice, the fact that, as yet, we do not know how does not alter the fact that it does. In support of this position Dr Eagleman emphasises the fact is that for every mental experience there is a corresponding correlate of brain activity without any known exception. Correlation of an A with a B does not, in itself, provide evidence of A→B causation or vice versa because causation requires a specific relationship between the two correlations. The premise of neuroscience is that this causal requirement is fulfilled because if the latter does not happen then the former does not happen and it never ever happens the other way round. The mental properties of mind must, therefore, emerge from the physical properties of the brain as there is no other credible interpretation of their relationship.

Dr Eagleman offers the analogy of a leaf cutter ant colony in which the coordinated activity of hundreds of thousands of individual ants results in the emergence of a super-organism with collective behavioural properties far more sophisticated and problem solving that any of its individual parts. Each ant, taken as analogous to each individual neuron, is programmed to follows simple rules of behaviour with no awareness of the whole but the organisational properties of the whole emerge from the continuously active sum of its myriad parts.

In his chapter on *Who am I?* Dr Eagleman says that when he holds a brain in his hands he remains in awe that this soft, dense, jelly like, structure weighing some 3 lbs with its deeply wrinkled surface seems so completely at odds with the mental processes it creates. '*Our thoughts and our dreams, our memories and experiences all arise from this strange neural material. Who we are is found within the intricate firing patterns of electrochemical impulses. When that activity stops, so do you. When that activity changes character due to injury or drugs you change character in lockstep. Unlike any other part of your body if you damage a small piece of the brain, who you are is likely to change radically'*. From birth onwards the brain endlessly reshapes its synaptic connections and therefore our mental processes and who we are by forming new circuitries joining different parts of the brain together in ever changing functional unities. Commencing with the basic genetic programming that built the brain and how it functions the major determinants for our subsequent development as human beings are our physical and our social environments from babyhood onwards, resulting in concurrent changes to our neuronal circuitry and therefore our emergent selves.

Eagleman quotes as an example of these determinants how many adoptive parents found that children brought up from birth in the regimented, emotionally empty, sensorily deprived and communicatively barren world of Romanian orphanages were unable to understand their new world of loving parenthood. Tests indicated IQs in the sixties and seventies and EEGs showed 'dramatically reduced neural activity'. Encouragingly, neuroplasticity in response to new experiences enabled various degrees of recovery, with children under the age of two recovering best but with older children showing prolonged developmental deficits into adulthood. Their emergent self was permanently damaged. Teenage brains differ in the wiring of their connections from adult brains with the resultant differences in impulsive behaviour and attitudes that are the despair of parents. Finding our way round our surroundings, which seem so obviously 'out there', depends upon the two midbrain hippocampal nuclei that store geographically correlated neural maps. These subcortical nuclei are substantially larger and their neural wiring is far more intricate in the brains of London cabbies who have successfully taken some four years to learn 'The Knowledge' of London streets, hotels, shops, theatres, sports grounds and so on involving thousands of interconnected geographical locations than those of us who have not. Presumably, the hippocampal nuclei of those unable to complete the course may not have been up to the task. If they are damaged, then so is our conscious spatial memory. This is just one example amongst dozens of our unaware mental dependence upon our brains for our everyday reality.

Our personalities and resulting behaviour can be dramatically affected by brain pathology. Consider the following case discussed by Eagleman. On August 1, 1966, twenty-five year old Charles Whitman took an elevator to the observation deck of the University of Texas Tower in Austin. He then fired down at random into the crowd killing thirteen and wounding thirty-three others before the police killed him. They later found that he had killed his wife and mother the night before. Nothing about his everyday life and social relationships as observed by family, friends and colleagues indicated that he could possible become a mass murderer. He was an Eagle Scout and was working as a responsible bank teller to fund his engineering course with a bright future ahead. When they searched his home the police found the following typed note '*I don't really understand myself these days. I am supposed to be an average reasonable and intelligent young man. However, lately (I cannot recall when it started) I have been a victim of many unusual and irrational thoughts……After my death I wish that an autopsy be performed on me to see if there is any visible physical disorder'*. When the autopsy was performed the pathologist found a small tumour pressing against the amygdala nuclei that carry neural correlates of fear, anger and aggression. As Dr Eagleman describes it '*this small amount of pressure on the amygdala led to a cascade of consequences in Whitman's brain, resulting in him taking actions that would otherwise have been completely out of character. His brain matter had been changing and who he was changed with it'*. What, one wonders, would have been the verdict if he had been brought to trial without any knowledge concerning that small tumour.

The answer to '*Who am I?'* is that there is no 'I' that remains unchanged over successive days and years. It changes everyday throughout life in parallel with correlated changes in our brain in response to changing circumstances even although, through the uncertain thread of memory, we retain the continuity of feeling that we are the same person as before but just a little bit older. If, says Eagleman, you were able to sit on a park bench alongside a series of yourself as a six year old, a mid teenager, in your mid twenties, thirties, forties, fifties and sixties to yourself in your mid seventies you would be meeting very different people in physical energy, outlook, emotions, relationships, ambitions and understanding of life. Our memories of who we think we were at any given age are very different to who we actually were at that time. Even our familiar 'I' has only a limited daily existence. Neurologically speaking, our conscious 'I' only arises as an emergent property when our billions of neurons are engaged in patterns of synaptic exchange across the whole brain whose collective purpose is to create our daily 'I-ness'. When we become non-conscious as in deep sleep our brain still remains active but in more discrete areas and our brain waves fall into frequencies of around 4Hz. The daytime 'I' no longer exists and only returns when our brain 'fires up' again next morning into a familiar pattern of cortical activity including activation of memories of yesterday's 'I'. Today's newly conscious 'I' seamlessly reconnects with the conscious 'I' of yesterday in apparent continuity of being *as if* the intervening

eight hour period of non-existent 'I' had never happened. If your brain does not wake up again, then nor does the emergent 'I' of you that is dependent upon it.

The answer to *What is Reality?* is that as far as your experiential reality is concerned it is a construct of the brain that, from babyhood onwards, has been genetically programmed to use its huge computational capacity to interpret the messages pouring in from its senses to create a psychologically emergent picture of the outside world and your experiential body moving within it. This applies to all species according to their survival needs. As Eagleman describes it the inferred physical reality as explored by physics is *'colourless, odourless, tasteless and silent. Outside your brain there is just energy and matter. Over millions of years of evolution the human brain has become adept at turning this energy and matter into a rich sensory experience of being'* and later '*All of your sensory experiences are taking place in storms of activity within the computational material of your brain*' which '*has no access to the world outside. Sealed within the dark, silent chamber of your skull, your brain has never directly experienced the external world and it never will*'. The brain translates all incoming sensory impulses into a common currency of electrochemical signals, passes them through intermediate stages of incredibly complex computation that is completed by the cerebral cortex to create an emergent *mental reality* of *experiencing*. But in neurological reality Eagleman says that '*Everything you experience – every sight, sound, smell – rather than being a direct experience, is an electrochemical rendition in a dark theater*'.

The apparently effortless immediacy of experiencing the 'out there-ness' of our three dimensional world of vision requires the computational power of a third of our brain to create and sustain. Eagleman illustrated this point by discussing the experience of Mike May. Aged three and a half he was blinded by a chemical explosion that scarred both corneas. Despite this handicap he became a successful business man and a champion paralympic skier, navigating the slopes by sound markers. In his late forties he underwent a new treatment that restored corneal transparency so his retinas could again supply his brain with accurate visual information. The result was not what he or anyone had expected. It was terrifying. Every visual experience was a discordant jumble of colours, shapes and movement without depth or coherence causing him great distress. Although this partially improved with time some fifteen years later Mike still had difficulty in reading, recognising faces and facial expressions and still relied on his other senses for emotional security. His adult brain had lost the computational power of childhood necessary to convert his retinal signals into the mental creation of an outside world we take as an objective given. Somehow, our visual brain working in concert with all of our other bodily senses including movement and touch constructs an *experiential reality* of *'out-there-ness'* that somehow invests the spatial features and properties of a pre-existing physical world out there in a species specific way for survival. All animals share the same public space that exists out there and envision it according to their needs.

What happens, then, to the mind when all incoming streams of visual and auditory stimuli are removed? When Alcatraz was a prison disruptive prisoners were locked in a cell called The Hole for days or weeks. Pitch black and in complete silence prisoners in The Hole lost all sense of time and everyday reality. Many became totally disoriented, banging their heads on the walls in despair. One ex-prisoner spent 29 days in The Hole for smashing up his cell. He told Eagleman that his mind replayed inner memories of family trips. He relived flying a kite as if he was back in that moment. Another inmate said that he saw an inner spot that expanded into a television screen on which he watched programmes. These experiences were not a form of daydreaming, they saw these pictures as completely real. In the absence of incoming sensory stimuli their active brains had created emergent inner realities as real as everyday reality.

Our experience of the rate of time flow has a rather elastic relationship with clock time. An interesting example is when in retrospect we recall the dramatic slowing down of time and rate of observed events as in the moments before a life threatening car crash or falling from a considerable height. What happened in a few seconds of clock time seemed to take for ages. To test whether perceptual time really did slow down during such a situation Dr Eagleman devised a wrist worn chronometer with numerals that alternated their pattern slightly faster than can be seen to change in normal time but should be seen if time slowed down. He and some very brave students then dropped 150 feet in terrifying free fall while looking at their chronometers, but despite post-fall certainty that time really had dramatically slowed down during the fall they were unable to see any alternation in number change. Neurologically, what happens in such life threatening circumstances is that our amygdala nuclei activate an incredibly fast incident observation and memorisation system that stores a vast amount of data for later review. As this review takes place at our normal, much slower everyday processing rate it takes much longer to download so much dense detail, creating a post experience certainty of recall that time really had had slowed down.

So '*Who's in control?* As you will have guessed by now the first answer is our brain. You are totally dependent in everything you do from *'standing, walking, driving a car, recognising a friend, getting a joke, feeling hungry or thirsty*' on '*vast computations happening below your conscious awareness. At this moment, just like in every moment of your life, networks in your brain are buzzing with activity, billions of electrical signals are racing along cells, triggering chemical impulses at trillions of connections between neurons. Simple acts are underpinned by a massive labour force of neuron activity. You remain blissfully unaware of all this activity but your life is shaped and coloured by what is happening under the hood: how you act, what matters to you, your reactions, your loves and desires, what you believe to be true and false. Your experience is the final output of these hidden networks'*. Having said that Dr Eagleman then asks rather surprisingly *'So who exactly is steering the ship?'* In brief, and sticking with this nautical analogy, the emergent *consciousness of you* is the captain and steersman who decides on your course, based upon the outcome of interacting variables of emergent *emotions, memories, imagined future scenarios*, desired *goals* and *logical thinking* as to how to get there. In that sense the main function of the brain is to create an effective, practical emergent *you* as without a daily *you* and your awareness and response to the world around you it cannot survive. An alternative analogy is that the emergent *you* acts as a cerebral CEO in charge of competing sub departments, deciding upon overall strategy but not needing to know detail.

How Do I Decide? Dr Eagleman takes the line that the brain is a battleground of competing neural networks linked to the emergent *you* of *likes* and *dislikes* and *decisions* as to whether, for example, your love of ice cream is greater than your desire to cut down on sugar for the sake of your health and waist line. An emotional desire to come to a decision after weighing up the alternatives is essential as without it you remain in a state of indefinite indecision. This depends upon an intact relationship between your orbitofrontal cortex (just above your eyes) that contain the frontal lobe neural correlates of intellectual assessment and creation of possible future scenarios of what must be decided and the midbrain emotional centres feeding information on the emotional pros and cons. Eagleman quotes the case of Tammy Myers who sustained

damage to part of her orbitofrontal cortex that connected to her emotional centres following a motorbike accident. Her intelligence remained unimpaired but she now finds making a decision almost impossible as although she can weigh up the pros and cons in intellectual abstract the drive to come to a decision has disappeared. In consequence, she often spends whole days of indecisive reflection on the sofa. This is a long chapter discussing, in part, how knowledge of the brain through brain imaging is being used to assist criminals to control their antisocial impulses and drug addicts to overcome their drug dependency by retraining brain circuitry.

Do I Need You? The short answer is 'Yes'. It seems that '*Normal brain function depends upon the social web around us. Our neurons require other people's neurons to survive.*' '*We are social creatures and an enormous amount of brain circuitry has to do with other brains'*. This chapter provides numerous examples to illustrate this point and the personal and social problems created when your brain has not got, or has not been able to activate, the necessary empathic social circuitry as in the spectrum from Asperger's Syndrome to severe autism. This section includes an intriguing example where, using transcranial magnetic stimulation (TMS) researchers applied a series of strong magnetic pulses to the dorsolateral frontal cortex of a participant who suffered from Asperger's Syndrome. Although a member of a rock band he was unable to understand and interpret social interactions so he retreated into a world of audiovisual technology. To the complete surprise of the researchers these pulses somehow 'unlocked' his ability to enter the normal social world. A whole emergent new self opened up as he suddenly felt part of society. He could now emotionally 'read' conversational meanings, bodily gestures and facial expressions. It was a complete revelation to him and, again to the surprise of the researchers, this change into a new, socially aware 'I' appears permanent.

Who Will We Be? Eagleman discusses recent advances in digital technology as in cochlear and retinal implants, patterns of sensory stimuli on the body or tongue based on spectacle mounted cameras that allow the brains of the blind to 'see' in in emergent 3D and many other such advances. He discusses the big question as to whether an emergent 'I' could ever be transferred from the brain by brain-digital interface and run on a comparable computational platform other than neurons. What if, in some future time, we do not have to die? ' Eagleman's frustration concerning the transitory nature of our emergent I' is summed up in the following quote '*When my friend and mentor Francis Crick was cremated I spent some time thinking about what a shame it was that all his neural matter was going up in flames. That brain contained all the knowledge, wisdom and intellect of one of the heavyweight champions of twentieth-century biology. All the archives of his life – his memories, his capacity for insight, his sense of humour – were stored in the physical structure of his brain, and simply because his heart had stopped everyone was content to throw away the hard-drive'.*

This very readable book, which contains so much more of fascinating interest than can be presented in a review, raises questions about our true nature in an acute form. Is Dr Eagleman's interpretative standpoint concerning the relationship between brain and mind one that can be dismissed as 'neuroscientific hubris'? Or, based as it is findings from ever increasing research concerning this relationship, is his neuroscientific interpretation closer to reality as to our true nature? Is the 'I' of conscious thought, emotion and awareness an emergent phenomenon entirely dependent upon our brain reaching some critical threshold of cortical activity for us to emerge into daily temporary existence?

This way of thinking about ourselves and all animals as temporary brain-mind organisms based upon the input from our known sensory systems may well become common currency in society as a whole as more books, more websites, more blogs and more television programmes such as *Horizon* promote this point of view. If so, how will anyone be able to account in any creditable way for the claim of *extra*sensory phenomena such as telepathy, clairvoyance and precognition, apparitions and ghosts, let alone psycho-kinesis and psychic healing? What of NDEs and the implication that they are a portal into an afterlife? Does Dr Jimo Borigin's unexpected discovery of a period of intense brain activity in dying rat brains imply a possible neural correlate for human NDEs if all brains follow the same final trajectory unless resuscitated? This would be in line with Dr Eagleman's picture that allows for two-way interaction between the brain and the emergent *'I'* of *consciousness* and underlying neural mechanisms. If this is the case then all talk of souls, spirituality and life after death is redundant.

This apparent two-way brain-*mind* interaction raises the unanswered question as to the nature of the emergent '*I*'. For any such interaction to occur the usual requirement is that the two agents concerned must be of the same nature. That is, they must be different in degree but not in kind as in energy conversions. So is the emergent 'I' of 'consciousness' a physical property of the same bioelectrical nature as our brain impulses and synapses? Does it, for example, consist of a daily emergent field of physico-mental energy, different in degree from its related brain activity but definitely not different in kind? Alternatively, is the '*I'* of '*consciousness*' and *sense of 'self'* a *mental* phenomenon only whose nature and properties are different in kind to the brain? If so, this leaves the problem of brain/*mind* interaction unsolved and possibly unsolvable. Either way the social and philosophical implications of neuroscientific research as to the relationship of brain and *mind* are profound.

Contemplative Neurophenomenology

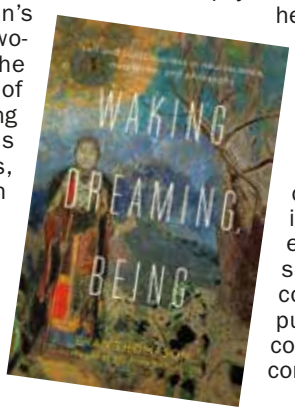
David Lorimer

WAKING, DREAMING, BEING

Evan Thompson

Columbia University Press, 2015,
452 pp., £23.95, h/b –
ISBN 978-0-231-13709-6

In this subtle, brilliant and erudite study, Evan Thompson examines self and consciousness in neuroscience, meditation and philosophy to formulate a contemplative neurophenomenology, building on the work of Francisco Varela and drawing on over 20 years of Mind and Life dialogues with the Dalai Lama. Evan is the son of a cultural historian William Irwin Thompson and was exposed to an extraordinary range of influences growing up, including Asian religious texts and meditation practices, especially Buddhism. He regards Buddhism and neuroscience as sharing a critical approach to the central question of the book, namely is consciousness wholly dependent on the brain or does consciousness transcend the brain? He sees neuroscience and evolutionary biology as challenging the Buddhist view that the ultimate nature of consciousness is nonphysical or nonbiological. Equally, he argues for the inclusion of meditative insight within a contemplative neuroscience.



Thompson's basic argument and conclusion is that there is no scientific (reliable empirical) evidence to support the view that consciousness, including pure awareness, is not contingent on the brain. He contends that his viewpoint

is not materialist on the grounds that consciousness has a cognitive primacy and 'since consciousness is by nature experiential, and experience is primary and ineliminable, consciousness cannot be reductively explained in terms of what is fundamentally or essentially nonexperiential.' (p. 103) He abhors both the outmoded belief systems of religious extremism and the entrenchment of scientific materialism and reductionism. In the course of the book he weaves together neuroscience and Indian philosophy in his exploration of wakefulness, falling asleep, dreaming, lucid dreaming, out-of-body experiences, deep and dreamless sleep, forms of meditative awareness and the process of dying. In doing so he moves freely between analysis of Indian concepts and reports of ground breaking neuroscientific studies.

His understanding of consciousness as luminous witnessing awareness that as a precondition to knowing. Reportable conscious perception seems to be correlated with 'large scale synchronous oscillations in the brain' (p. 31), which does not seem to sit comfortably with his interpretation of near-death experiences (p. 305), of which more below. He returns frequently to the premise or working assumption of neuroscience that all mental phenomena, including conscious experiences, are physical phenomena correlated with brain activity taking place in a living body. This, however, still leaves the explanatory gap of how physical processes could possibly give rise to conscious experiences. The way in which one interprets one's conscious experience – whether or not this is wholly dependent on the brain – is conceptual and metaphysical. In this respect, while questioning standard emergentist views, he is not sympathetic to Galen Strawson's panpsychism, preferring to define physical as no longer nonmental or nonexperiential within a nondualistic framework where physical being and experiential imply each other or derive from something that is neutral between them (p. 105) – Bohm's implicate order would be one example.

In his chapters on dreaming, Thompson attributes a central role to imagination and the witnessing awareness developed in the course of dream yoga, a subject he debates with Alan Wallace. Imagination seems to permeate both waking and dream consciousness and in both cases it is possible to become mindful or lucid. It is when he moves on to discuss OBEs and NDEs that some readers – like myself – will part company with his analysis. Following Susan Blackmore, Olaf Blanke and Thomas Metzinger, he sees OBEs as essentially mental simulations. I discuss a different interpretation involving parallel spaces in my review of the book about Michael Whiteman elsewhere in this issue. Metzinger acknowledges the force of experience in inclining people towards ontological dualism but prefers a research strategy involving the 'neurophenomenological reduction of paranormal belief systems', which he regards as seriously misguided and unparsimonious.

The chapter on dying is comprehensive, including as it does Thompson's experience of a workshop with Roshi Joan Halifax simulating the release and dissolution of consciousness. Within his metaphysical framework it makes no sense to speak of a phenomenology of death as 'experience ceases to exist.' This is in fact a metaphysical inference, and there is no reference to any of the work on survival, apart from that on reincarnation by Ian Stevenson. Here I found Thompson relying on methodological generalisations rather than engaging with the specifics of Stevenson's research. He remarks that all the evidence is anecdotal and quotes a reference from *The Skeptic* criticising Stevenson's statistical reasoning and concluding that his evidence is unconvincing. Readers familiar with Stevenson's work are likely to find Thompson's own view equally unconvincing.

The same applies to his analysis of NDEs where he criticises the conclusions of Pim van Lommel and Peter Fenwick. I was not persuaded by his observations on the timing of the experience where he puts forward the possibility that the NDE could occur in the few seconds before loss of consciousness – this is contradicted by the evidence for events accurately perceived apparently in real time during cardiac arrest. In order to be consistent, he has to argue that there is brain activity sufficient to support some kind of consciousness, although I find this hard to square with his observations on large scale synchronous oscillations in the brain necessary for reported conscious experience. His critique of the Pam Reynolds case assumes a mental simulation model as the only way of making sense of it so that he concludes (p. 309) that 'there is no compelling evidence for thinking that the brain is inactive or shut down when these experiences occur…on the contrary, upon careful examination this case actually supports the claim that near-death experiences are contingent on the brain.' Few people who are not already committed to the mental=physical equation would draw this conclusion. His discussion of veridical OBEs also claims that these are better understood as mental simulations based on ordinary sense perception. However, he is right that the studies conducted in rigorously controlled clinical conditions have so far not yielded any positive results. However, these genuine real life cases cannot subsequently be subjected to the scientific approach to evidence, but are better understood using a rigorous legal approach instead, as Victor Zammit suggests.

In his final chapter, Thompson discusses the nature of the self using a model first articulated by Nagarjuna. He rejects what he calls neuro-nihilism – that there is no self – preferring an enactive view of the self as a dependently arising process that is nevertheless not an independently real entity (p. 324). He elaborates this in terms of self-specifying systems of autopoiesis or self-making that are also conceptually dependent on our cognitive frame of reference. The self as an independent entity is a delusion within his understanding of the self as a mental projection onto the five Buddhist mind-body aggregates of form, feeling, cognition, inclination and consciousness. Such a process self could not survive death.

As I said at the outset this is a subtle and brilliant study making the case for a contemplative neurophenomenology that, unlike Marjorie Woollacott in the book reviewed below, does not stray beyond the neuron but remains loyal to and consistent with the working hypothesis of neuroscience ultimately equating in some way the mental with the physical and ruling out by definition the possibility of consciousness transcending brain function. I do agree with the author, however, that a humble approach of living with uncertainty and not knowing is appropriate in this area of ultimate mystery, but there is more evidence out there than he is ready to embrace.

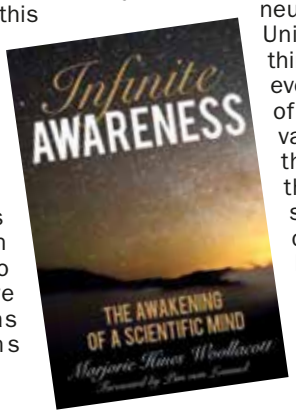
Beyond the Neuron

David Lorimer

INFINITE AWARENESS

Marjorie Hines Woollacott

Rowman and Littlefield, 2015, 285 pp., $38, h/b – ISBN 978-1-4422-5033-6



Marjorie Woollacott has been a neuroscience professor at the University of Oregon for over thirty years and a meditator for even longer. Following the work of Eben Alexander and Pim van Lommel, who contributes the foreword, she makes the case for an expanded scientific paradigm in which consciousness is primary. In doing this she integrates her own experience of what she calls infinite awareness in meditation with consciousness research

that cannot be accommodated within the prevailing materialist paradigm. She shares her own quest, including her energetic initiation into a meditative tradition and her study of Sanskrit and Indian philosophy.

In looking at the central question of how consciousness is related to brain function, Pim defines a scientific approach as asking questions with an open mind rather than categorising a scientific explanation as by definition reductionist and materialist, as neuroscientists are trained to do. The subtitle - the awakening of the scientific mind - is instructive as this brings together the subjective and objective aspects of our existence. For the author, this includes distinctive experiences of energy flow and special states of consciousness. One important interface is the evidence for neuroplasticity whereby the structure of the brain is modified through meditation practice. Three chapters look at consciousness from the bottom up, then the top-down perspective espoused by Roger Sperry and the dualism of Sir John Eccles, and finally consciousness as a continuum. The author is very clear that the materialist paradigm leaves no room for free will and intention, which she identifies as the paradox of bottom-up reasoning - why should we pay attention to views based on neural determinism? She also shares how her new more peaceful state of mind enabled her to stop criticising her husband by dissolving her own sense of irritation.

Woollacott then moves on to discuss the implications of near death experiences, the work of Ian Stevenson on children who remember previous lives (including the remarkable experience of James Leuninger who remembered a life as a World War II air force pilot), the placebo effect, research on hypnosis, distant intentionality and healing. All this evidence suggests that the mind can affect physiological processes, which cannot be explained by current scientific theory. The author has also for some years taught an undergraduate course on complementary and alternative medicine, and it is interesting to note how two thirds of the students are sceptical at the beginning of the course, especially with respect to homeopathy - where one student asserted that if there is no mechanism, it cannot be science. Perhaps, though, the mechanism may be based on physics and energy rather than molecular biology.

One very distinct parallel emerges between states of consciousness in the near death experience and meditation. Eben Alexander observes that NDEs provide evidence for a type of mental functioning that varies inversely, rather than directly, with the observable activity of the nervous system. This suggests that the brain inhibits certain kinds of expanded mental processes. In the course of writing the book, the author came across the work from the University of Virginia summarised in the book *Irreducible Mind*, and, more recently, in *Beyond Physicalism* (both of which have been reviewed in these pages.) She describes her meetings with Ed Kelly, Jim Tucker, Bruce Greyson and Michael Grosso. All of these thinkers have been struggling with scientific prejudice against their consciousness research and have been led to postulate a universal mind beyond individual consciousness.

The final chapter revisits the consciousness-brain interface, starting from the work of William James in formulating a filter theory. Consciousness is regarded as vast and limitless beyond time and space and can be experienced by human beings only in a limited form. She cites James' seminal Ingersoll Lecture on Immortality without referring to one of his key sources in the Oxford don F.C.S. Schiller, whose *Riddle of the Sphinx* (1891) I regard as essential reading and which I discuss in my own book *Survival?* She does, though, bring in Myers, Bergson and Aldous Huxley. James sees the brain as 'straining, sifting, canalising and individualising' the vast consciousness beyond it. She also quotes the work of Paul Marshall, to which Larry Dossey referred in his recent Mystics and Scientists lecture (she could also have referenced his work in this area). Marshall gives a very good articulation of the filter theory and its implications, which is consistent with a panpsychic or panentheistic worldview also taken by Kashmir Shaivism, which the author has studied.

I think she is right in observing that states near death or in meditation can reduce the brain's filtering mechanism and allow the mind 'an extrasensory experience of the expanded consciousness that is always present, but is usually unperceived. (p. 228) she then brings in the work of Henry Stapp and John von Neumann on quantum mechanics and mind brain interactions. This provides a coherent top-down theory that is capable of explaining the evidence she discusses. She ends with Christof Koch's significant change of worldview. He was a collaborator with Francis Crick and initially shared Crick's view that we are nothing but a pack of neurons. He now believes that we can never account for how neural circuits create consciousness: 'subjectivity is too radically different from anything physical for it to be an emergent phenomenon.' So consciousness seems to be associated with the brain rather than produced by it. This is a courageous book that adds to the growing evidence that we must transform and expand our scientific view of consciousness to postulate its primacy and recover our own human dignity in the process.

Broken Open to Love

David Lorimer

DEATH – THE LAST GOD

Anne Geraghty

O Books (John Hunt), 2015,
214 pp., £12.99, p/b –
ISBN 978-1-78279-709-8

I am writing this, appropriately, on the 25th anniversary of my father's death in 1991, just before our annual Mystics and Scientists Conference – the only one I have missed in over 30 years. In one of the many wisdom stories in this book, a sage explains that a happy life is one where grandparents die, then parents, then children. This does not sound too happy to the questioner until the story is reversed where children die first, then parents, then grandparents. The author found herself in this fundamentally challenging position when her only son died of an accidental overdose at the age of 34. It is this sudden loss and its aftermath that breaks her open to love and has resulted in one of the most profound books I know about death and its relationship to love and life. It is also appropriate that I can hear loud music in the distance (I'm writing this outside in the evening sunshine) as her son Tim loved music and parties. Indeed, his friends arranged just such a party on the anniversary of his death.

A central theme running through the book is the paradox of the death of the body, the ending of individual time, with strong evidence for the continuity of consciousness, in this case through a series of extraordinary dream encounters. As Tim died in his sleep, he was evidently unaware of what had happened and therefore deeply confused. Anne goes to see his body after a couple of days then senses his presence in the room and explains to him aloud that he has died. This proves to be a liberating if painful moment as Tim becomes aware of his new possibilities. Her sense of loss is exacerbated by guilt and remorse as her past and the ramifications of her relationship with Tim come back. It turns out that she left him for long periods during his childhood to pursue her own quest for liberation and enlightenment with Osho. This

had a fundamental effect on him, as she learns more deeply during an Ayahuasca trip as she berates herself for being a bad mother - this tension is later resolved partly through a process undertaken during Tim's lifetime, but also in an extraordinary encounter including Tim and Osho where the perfection of the pattern is perceived and understood. Incidentally, Osho had also appeared to her the day after his death and Tim had written a critical book about the community and his mother's involvement in it.

We live in a culture that tries to control and deny death, even if it is the one certainty in life. Our individualism has fed the ego's sense of separation and while we project our hopes onto life, we project our fears onto death. Anne sees death as fundamentally an encounter with ourselves and the life we have created - at a deep level this means soul-making, our contribution to the ongoing life process. And death, as Monika Renz points out in her book that I reviewed in the last issue, is the surrender and dismantling of the ego and where, as represented in the Tibetan Book of the Dead, we face our own self-created demons. In her case, Tim's death dismantled her whole identity and life, so that she literally died to who she was before. The narrative shows just how excruciating this process was, but the alchemical outcome is a rare level of insight into the dynamics of life and death and the way in which the love we create can transcend death, as witnessed in the many powerful encounters with Tim that she recounts. It is also significant that his father, an atheist, has a dream about him where he is faced with a brick wall. One brick is removed, and through it he sees the smiling Tim. He does not believe that this means anything, and Anne encourages him to take the wall down – it is partly that the mind cannot really understand death anyway.

In one encounter with Tim, he remarks that 'the art of living and dying is to be totally engaged and committed to life while alive and let it all go in an instant when you die. Some are better at the engagement, others at the letting go.' In another, he explains that he has quite a lot of un-lived life to get through, and, pointing to a collective of young people who died in wars, he says that they are using their unlived life to try and raise people's awareness of the stupidity and futility of war. He himself is part of a creative group inspiring musicians and writers - and because they have no ego, it does not bother them that no one knows what they are doing. He also uses some of this unlived energy to help his mother through his death, 'which is not what it seems.' His consciousness now flows through different life forms – he belongs to the cosmos. Elsewhere, Anne writes that 'death ends lives but not relationships. Death can be described as a transformation from matter to energy, actuality to potential, time to eternity, form to spirit, existence to oblivion… our relationships to the dead continue but in a new form'. I hope this conveys a few nuggets from the wisdom of the book.

Another extraordinary incident is where on another Ayahuasca trip she volunteers to help her brother, who had died of pancreatic cancer. She locates him in a limbo state where part of him is ready to go to the light while the other part is full of unresolved conflict, that he himself is unable to process. She then takes this into her heart, transforms it and liberates him as a result. It is a moving and inspiring episode. In another vision, she sees 12 generations of her Irish family stuck in the grim business of survival and has the experience that she and Tim have also been able to free them. There is a more specific story about unravelling a relationship with her mother, who presents her with a stone heart. Gradually, they both realise that they have been acting out a family drama which they can now resolve.

There is much more I could say about this epic book, but I encourage readers to make their own deep journey through it and reflect on how it applies to each of us. Perhaps one of the most important messages of all is that love is the bridge between the worlds, because when a person dies, our love for them does not. We make the love that makes us and that also creates what is eternal: 'we become what will redeem us, forgive us our mistakes and give us eternal life.' So love creates the deathless while death gives life its precious value. And since love is eternal life, it is in the end even more powerful than death. The book is subtitled 'a modern book of the dead' and I think it more than lives up to its title with invaluable insights that can be gleaned from it as a guide not only to death, but ultimately to living our lives to the full.

See also www.dimensionsofdeath.net and Conscious TV interview http://bcove.me/ytd2rygv

Home Consciousness Continuum

David Lorimer

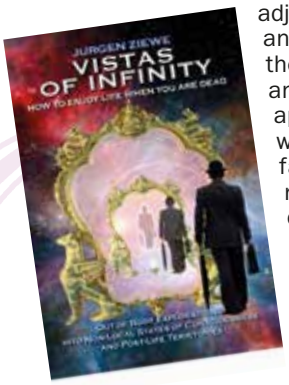
VISTAS OF INFINITY

Jurgen Ziewe

www.vistasofinfinity.com, 2015, 268 pp., no price given – ISBN 978-1-326-35338-4

Jurgen Ziewe has been meditating and travelling beyond the body for over 40 years by shifting consciousness into nonphysical states of awareness with enhanced lucidity that gives him access to a huge range of afterlife realms in a similar way to Robert Monroe and, in the 18th century, Emanuel Swedenborg. For readers like myself who are familiar with a wide range of literature in this area, the picture that he draws is a consistent one and, as such, represents a further line of convergence in our understanding of what happens after death. He sums up an overriding law as follows: 'when the relay station and filter, which is our brain, stops functioning, the body is returned to its individual atoms, our conscious and subconscious mind become our new external reality.' (p. 22) Swedenborg said something very similar whereby the inner becomes the outer. Further on, he defines the afterlife by saying that 'the place you will live in after you die is a manifestation of your inner life.'

Towards the end of the book, Ziewe reiterates this point by saying that our physical nervous system acts like a shield to block out the subtle movements of energy that we put out. When the shield is gone at death, we are suddenly confronted with ourselves and our output (see also my review of Anne Geraghty above). Everything we see will be a clear mirror of what we are: 'we will not only see it, but will feel it intimately too' as witnessed in the life review. In the course of the book, he gives many illustrations of this fundamental karmic law where we receive back what we have put out, positive and negative. It is generally feasible to work through this process by shedding light on it and orienting oneself in loving service to others. This can initially be complicated by the fact that many people do not realise they have died and are in a space very adjacent to our physical vibration and manifestation. He relates the development of his mother and the reconstitution of her appearance as a young woman, while also encountering his father and various other relatives in what he calls a continuum of consciousness.



An important contemporary lesson can be learned from his perception of the unspeakable suffering in

the afterlife of a (misguided) suicide bomber. Ziewe describes how the person is surrounded by the very real thought forms of his victims and the representation of their pain, and his own understanding 'that the fate of his victims and the sufferings could never be reversed or erased.' However, in all cases the way out is one of love, service and forgiveness. He explains that our actions create an entanglement of energy that is recorded on what he called the greater Consciousness system or cosmic hard drive - all these energy patterns ultimately have to be harmonised according to the law.

In common with other accounts, our powers of creative manifestation in these other worlds are greatly enhanced, but we do have responsibility for how we use these capacities, and cannot separate ourselves from the seeds we have sown. He describes the higher realms as ones of beauty and love also characterised by the feeling of homecoming, the sense that one deeply belongs. A key theme is the overcoming of our sense of separation by the realisation that we cannot truly separate ourselves from Home, Source or unifying Singularity of Consciousness because it constitutes our essence and sustains everything in being. To realise this oneness is awakening, and we are each an individualised centre or anchor of this same oneness in a vast and intricate pattern or network.

Deep meditation is one way of accessing the stillness at the core of our being and attuning ourselves to it. Ziewe sums up two purposes in the universe: 'one purpose is a limitless expansion and regeneration in new and different permutations of being; the other purpose is a blissful life in service to others.' It is possible to live from this stillness and oneness with a sense of universal identity and therefore of love and compassion towards all, so his ultimate advice is just this: realise your unity with the whole of life and consciousness, and use your own life as an expression of loving service to others. In this way, actions of love and goodwill become a stepping stone towards higher consciousness, whether here in this life or after death. In the end, it is not so much the intriguing experiences of this eye-opening book that are enlightening, but the lessons drawn from them in terms of how best to live our lives.

ecology-futures studies

Animating our Hearts

Martin Lockley

REWILDING OUR HEARTS; BUILDING PATHWAYS OF COMPASSION AND COEXISTENCE

Marc Bekoff

New World Library, 2014,
198 pp., $14.95, p/b -
ISBN 978-1-57731-954-2.

Marc Bekoff, professor emeritus of ecology and evolutionary biology at the University of Colorado, Boulder is a "gentle" man. He is quite famous as a tireless animal rights activist who approaches his calling, with positive, firm, non-militant and proactive persistence. Author of a dozen books, many with words like "animal" and "compassion" in the titles, he is also well-known as a friend and collaborator with Jane Goodall, DBE, who is also among the world's most conscientious animal rights activists. As a University of Colorado academic (from another campus) I've known of Marc's work for some time, met him once or twice, and shared mutual associations with other advocates of conservation. We are variously involved, some of us peripherally, in what some have called the New Nature Movement in which Marc has distinguished himself as "one of the leaders."

But as Marc and Jane would remind us, having compassion for mistreated animals and ecosystems, or fighting crass materialism and consumerism involves more than lip service or joining a movement with "leaders" and green environmental associations. It involves a change of lifestyle, heart and consciousness, which in turn involves action and leading by example. This does not mean living like a survivalist, "off-the-grid." Rather, Marc defines the premise of "rewilding our hearts" by saying that "caring is OK. In fact…it is essential." Wilding or being wild therefore is, or should be, a natural and comfortable human condition, whereas to suffer alienation and "dis-ease" is to be "unwild" and conditioned to an unnatural existence where we suffer what some have called a "nature deficit disorder." [See my review, **Network 118**, of *How to Raise a Wild Child*, by Scott Sampson, another Colorado resident: it is after all the wild west]! Likewise to resist our natural inclinations and potential for compassion is to pass on the other side of the street, to be *Homo denialus*, a bad Samaritan, or a "slacktivist," who sees or admits no evil, or need for conscientious action. [Complacency is perhaps a convenient trap into which our compassionate inclinations too easily take refuge when we fail to challenge questionable deeds appropriately].

As children we mostly love animals and are spontaneously playful and friendly to one another. We warm to the sense of belonging to humanity and the organic world. We enthusiastically love life and our innate connection with it is what Eric Fromm aptly called "biophilia." We are naturally comfortable with compassion, empathy and coexistence rather than strife or alienation, and in today's interconnected world coexistence is increasingly important. All this shows that we only have to cherish and nurture the compassionate side of our nature to realise a more harmonious world. But as Marc points out, progress in this sphere involves some urgent work. Knowing we have compassionate instincts is not enough. [As one activist put it "wearing a button is not enough."] Action is required whether it means becoming a vegetarian, reducing our consumerism and carbon footprint, recycling, supporting green causes or influencing friends to help save the planetary environment. The worst case climate and environmental scenarios are dire, but every mitigating action helps reduce the threat a little, and just might help shift the collective consciousness. As Marc says "inaction is inexcusable." So Marc's social movement creed promotes the "eight Ps" which involve being *proactive, positive, persistent, patient, peaceful, practical, powerful and passionate*." "Make the most of the best and the least of the worst" he advises, advocating gentle persuasion over militancy. The economic benefits of green technology are already helping persuade the recalcitrant deniers of the old school that the gentler, environmentally-friendly pathways are better.

Some PETA (People for the Ethical Treatment of Animals) advocates have gained a reputation for militancy and extreme positions. But it is not extreme to object to mistreating animals, or plants (forests?) for that matter, as long as you protest peacefully. You can chose whether to swat a fly, or let it find its way out of your house, just as you can chose whether to let corporations and developers cut down woods or drain wetlands in your community. The statistics on how many factory farmed animals are killed each year for our dinner tables is horrifying: not millions or even tens of millions, but hundreds,

perhaps thousands of billions of fish, mammals and birds. How that number might be reduced if we all ate less meat, at the same time reducing the need for pasture which is used 20 times more inefficiently than crop land. As a lousy student in school I managed to avoid dissecting animals in biology class, and remember vividly lamenting the death of a nematode worm a few years later in my zoology lab petri dish at university. At the time I was an idealistic vegetarian and even drew a little cross, in my notebook: I evidently thought it a Christian worm! This natural reaction is so common, that recently students have been excused from assignments involving any kind of vivisection. 50 years ago Spike Milligan campaigned against forcing dogs and rabbits to smoke cigarettes, and quite right too: it sure ain't natural, and the argument that it might help humans is feebly self-serving. Thankfully while some food corporations are making last ditch attempts to outlaw protests against factory farming, many labs that conducted animal experiments are moving in another more "humane" direction, rethinking their practices and substituting models.

Part of the shift in consciousness that goes with the New Nature Movement is conservation psychology defined as " the scientific study of the reciprocal relationships between humans and the rest of nature, with a particular focus on how to encourage conservation in the natural world." This may be of interest to SMN members, as is the paradoxical fact that humans need to realise they are not an exceptional species [in terms of sentience], but at the same time may have to come to terms with being "the only species that can really change things for the better. We are that powerful, and in that sense we are that exceptional." It is on that note than Marc ends, positively. We are capable of a) recognising the harm we do, the problems we create, and b) addressing, mitigating and reversing them. This is perennial wisdom, not unlike the Hegelian dialectic: thesis, antithesis, synthesis. It is part of the human condition to be aware of what we do that is both good and bad, and how our actions reflect on the positive compassionate or darker sides of our nature. Surely to be human is to be humane. "*Rewilding is part of a global social movement that can unify us.*" "We live in a magnificent yet wounded world." We inflict the wounds partly on ourselves, but we also have the concept of healing and the wounded healer. By healing ourselves we will also heal those with whom we coexist. This very sentiment highlights our compassion and ability to animate our hearts, remember the vital soul or "anima" and make compassion and personal rewilding all the rage.

Connecting with Nature's Intelligence

David Lorimer

RESTORING THE SOUL OF THE WORLD

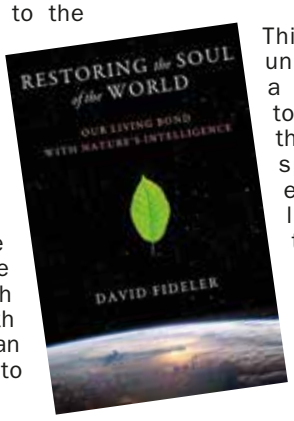
David Fideler

Inner Traditions, 2015,
310 pp., $18.95, p/b –
ISBN 978-1 620-553596

David Fideler's background is in philosophy and history of science, but he is also a musician sensitive to the wonders and beauty of nature, and he lyrically describes a number of his own experiences in this book. In this respect, he quotes the Greek philosopher Anaxagoras who, when asked why anyone should wish to have been born replied 'in order to contemplate the heavens and the structure of the world-order as a whole.' Fideler's starting point is that, although we have the most advanced technology, we have forgotten what it means to be alive in a living universe. Our mechanistic outlook and focus on objective ways of knowing cut us off from Nature and therefore from a deeper sense of meaning derived from this connection.

The four parts cover awakening to the beauty of nature, the death of nature and the rise of alienation, Anima Mundi and the rediscovery of the living universe, and finally cultivating life in a global community. History makes it clear that the cosmovision or world view of living universe rather than a dead vision has prevailed throughout most cultures. Theory has been balanced with experience and people have sought a harmonious relationship with the cosmos that has also been characterised by a sense of beauty. Science and philosophy have sought unity through understanding form and order. For Plato, the World Soul 'is the intelligent and harmonious principle of proportion or relatedness that exists at the heart of the cosmic pattern and allows all things to unfold in the best possible way.' For Alexandrian and Greek philosophers, except perhaps in the abstractions of Aristotle, there is a sense of participation in a larger whole. For Plotinus, 'we are in a reality that is also within us.'

The author moves on to the themes of mediaeval alchemy where we also find an engagement with living Nature, which Jung defines as transformation itself. Creative decay gives rise to new forms, death leads to rebirth. He contrasts the austere spirit of the desert with the lushness of Earth and quotes the theologian Lactanius who begins to develop the idea of a designer removed from creation. At this point he could have added that this austerity applies to attitudes towards women and the body, and more especially sexuality. There is then some reawakening in 12th century Chartres with an alignment between the World Soul and the Holy Spirit. Thomas Aquinas mentions that beauty requires, wholeness, harmony and radiance. This leads on to Renaissance Florence with the insights of Bruno, Ficino and, subsequently, Paracelsus.



At this point the mechanical philosophy arrives, as developed by Galileo and Descartes leading on to Francis Bacon then Newton. Fideler realises that Newton had an alchemical side to him, but he had to hide his Hermetic interests and expressions of belief in living Nature. Bacon's philosophy also encourages a spirit of power over and exploitation of Nature, even though he too had esoteric Rosicrucian interests as documented in the work of Peter Dawkins. The next chapter discusses the development of thinking about the unconscious and saw the importance of the imagination in the work of Goethe, Blake, Schelling and Coleridge. They saw underlying reality of the world not as matter but nonmaterial patterns of relationship and had a keen sense of reciprocity between humans and Nature. Freud was more mechanistic in his understanding but Jung brought back a gnostic and alchemical understanding and a sense of inner connection to the processes of life. More recently, we have the emergence of ecopsychology.

The author moves on to the history of modern science and the reanimation of the universe in our understanding. The determinism of classical physics gives way to fields, relativity and quantum theory, nonlocality, the Anthropic Principle, self-organisation and autopoeisis, complexity and chaos theory, living systems and systems theory, the Gaia hypothesis, symbiosis and synergy. This gives us a completely different cosmovision or world view based on participation rather than the remote detachment of the observer: 'the universe brings forth life and mind – but life and mind work to shape the universe.' (p. 219)

This new vision of a living universe can help underpin a revolution on our attitudes to Nature. We also now have the picture of the Earth from space and the mystical experiences of astronauts like Edgar Mitchell. Fideler thinks that three things are needed to live consciously in a Cosmopolis as understood by ancient philosophers: 'a real, felt sense of our bond with the transcendent

order of which we are part; a vision of living Nature and an appreciation of Nature's intelligence; and an ethical concern for society based on our intrinsic kinship with others.' (p. 223) In the final part, Fideler describes the contribution of biomimicry towards working with Nature. He discusses the work of John Todd in ecological design and argues, rightly in my view, that sustainability is not enough. We need regeneration. In this context, he could also have mentioned the work of Viktor Schauberger on water and agriculture. At the end, he offers the metaphor of gardening as a constructive human engagement with nature. Work like this is going on, but it is small-scale compared with the overall destructive impact of human activity. As Bede Griffiths also maintained, we do need a new vision of reality to inform our thinking and corresponding action. This book not only provides the necessary background but also the substance of such a vision that now needs to be communicated and acted upon more widely. This in turn implies new thinking about wellbeing that goes beyond the imperative of economic growth, as I discuss below in my review of *Love, Fear and the Destiny of Nations.*

The Evolution of Consciousness and the Future of World Governance

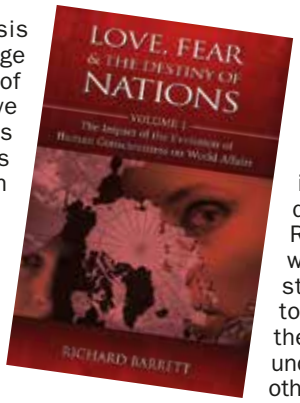
David Lorimer

LOVE, FEAR AND THE DESTINY OF NATIONS (Volume 1)

Richard Barrett

Fulfilling Books, 2012, 418 pp., no price given, p/b –
ISBN 978-1-105-63932-5

Richard is Founder and Chairman of the Barrett Values Centre and former Values Coordinator at the World Bank. Here he provides a historical overview and prospect on the impact of the evolution of human consciousness on world affairs and governance structures; it is based on his very extensive research over a 15-year period involving 3,500 organisations in more than 40 countries. Instead of equating development as economic growth or even sustainability, he redefines it in terms of the evolution of human consciousness by way of previous definitions involving survival, security, power and righteousness. His new definition is closely related to human well-being, democracy, freedom from fear, and happiness; it is aligned with new indicators while going beyond them. His thesis – similar to Elisabet Sahtouris - is that 'we need to learn how to cooperate with each other for the good of the whole, and to do this we need an integral approach' – based on the work of Ken Wilber's four quadrants (mind, body, culture and society).



His succinct diagnosis of our current challenge is that 'the problems of human existence have become global, whereas the societal structures we have for dealing with them are national.' It has been evident for several decades that our international institutions are inadequate to the task and that we need to expand our sense of identity and shared values. Behind the unwillingness to cede sovereignty, Richard sees a larger issue of lack of trust, which applies particularly to politicians. Overall, he sees a need for a shift from world run by independent nations to one run through collaborative regional and global governance. One problem with this, as we see in the current EU debate, is that these supranational organisations are bureaucratic rather than democratic and are not sufficiently accountable. However, I think he is right in his analysis of the overall direction of human social evolution and its underlying biology. As the title suggests, there is a gradual shift from fear towards trust and then love, although the way that world events are reported often goes in the opposite direction.

His scheme involves three stages and seven levels of consciousness with their corresponding motivations and developmental tasks: surviving, conforming, differentiating, individuating, self-actualising, integrating, and finally serving. He explains in some detail the corresponding stages of societal development: band, tribe, city-state, nation, cohesive nation, regional grouping and global. One can understand that these constitute different levels of identity and belonging representing an overall move from competition and self-promotion towards cooperation and service. I found his analysis of cultural fears extremely helpful, addressing it does power relationships and inequality, masculine and feminine, and dealing with uncertainty. On this basis, he is able to categorise nations at one of three stages in the move from fear to trust to love. He finds that Nordic countries come out top, especially in relation to inequality. He then moves on to a more detailed assessment of cultural values.

The second part takes the ultimate measure of the quality of democracy as the level of trust, which is by definition inversely proportional to the level of what he calls cultural DNA fear. He sees democracy as essentially a means of regulating the power and influence of governing elites and increasing the number of people involved in societal decision-making. He identifies seven value drivers, devoting a chapter to each: freedom, equality, accountability, fairness, openness, transparency and trust (in terms of both character and competence). Again one can see how these issues are reflected in the EU debate. From the point of view Richard's analysis, a Brexit would represent a backwards step away from integration towards nationalism, but on the other hand one can also understand the arguments of the other side in terms of values and subsidiarity. His vision is a larger one and based on the fact that the Earth is a unified territory and humanity's collective life support system; and the corresponding view that the only way to manage the Earth and its resources is 'through a global system of governance that works for the good of humanity as a whole, not just for the most powerful nations, and supranational corporations.' So his essential point is an emphasis on one Earth and the interconnectedness of humanity and therefore on the need for higher-order cooperation that represents a more advanced consciousness based on service rather than exploitation.

If one agrees with his underlying argument, then the most important question becomes how we move from here to there, bearing in mind the thrust and support of the evolutionary process. This requires an understanding of the two principles of delegated sovereignty and endowed legitimacy. The diplomat Lord Mark Malloch-Brown writes that we now live in an unregulated hell where environmental impacts are shared globally (and unequally), 'but the solutions remain blocked at the national level.' Changing these institutions may involve a fundamental crisis that demands new forms, but also the further development of empathy and compassion. Richard lists nine obstacles that we need to overcome in order to build a sustainable future for everyone on the planet, but the key issue is that we do not yet have the necessary leadership paradigm based on a new mindset. These leaders will have to embody trust, empathy and compassion and they will need to be developed – we do not yet have them to hand. This is the work of the Barrett Values Centre promoting development as democracy and equality rather than elitism and power. Luckily, the necessary resources are already in our hearts and in our deepest human values. This visionary book helps readers understand our global position and how we can all contribute towards moving beyond existing limitations to a world that works for everyone. www.valuescentre.com, www.newleadershipparadigm.com

general

A Transformational Journey

David Lorimer

MY DOUBLE LIFE I – This Dark Wood

Nicholas Hagger (SMN)

O Books (John Hunt), 2015,
605 pp., £25.99, p/b –
ISBN 978-1-84694-590-8

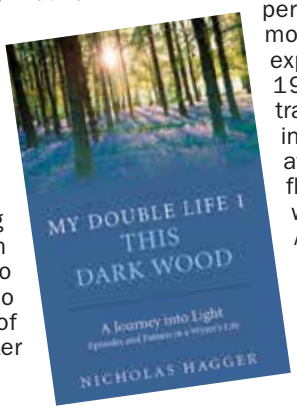
As one of his friends remarked, Nicholas Hagger's double life not only refers to the contrast between his mystical journey and intelligence work for MI6, but also to the fact that he has crammed in double the amount of experience into his life. In this first volume, he describes his background, upbringing and education, then his career up to 1973. The book consists of 15 episodes of contrasting dualities such as literature and law, wisdom and intelligence, establishment and revolution, illumination and nationalism, meaning and disenchantment. Nicholas uses the symbolism of 8 clockwise and 13 counter-clockwise spirals in a pinecone to illustrate these tensions.

Worcester College Oxford plays an important role in the story. His knowledge of Roman coins enabled him to gain a place and be in contact with Sir John Masterman, the Provost, whom he later found out had played a crucial role in World War II intelligence, and gave him the necessary introduction to Whitehall. Later, in 1978, he was discussing his experiences with the then Provost, Lord Asa Briggs, who urged him to write up the full story of his experiences, especially the Gaddafi revolution in Libya. His father wanted him to go into law and politics, but he chose literature and poetry instead. He was an early reader of Colin Wilson's *Outsider* and took life as an existentialist very seriously, even knocking on Sartre's door in Paris as a form of free act. He also visits Colin Wilson on a number of occasions, which he finds extraordinary stimulating intellectually. Among other important meetings are those with Montgomery, Hemingway, Blunden, E.W.F Tomlin in Japan, a drunken Peter O'Toole in Oxford and Ezra Pound in Italy. Pound told him that T.E. Hulme had said to him in 1915 that a writer should be able to put his essential message down on half a postcard, and that the rest was application and elaboration.

Nicholas' main teaching postings were in Iraq, Japan and Libya. In Japan, he also becomes a private tutor to Prince Hitachi, the brother of the Emperor, and speechwriter for the Governor of the Bank of Japan. He immerses himself in Zen and has an important encounter with Junzaburo Nishiwaki, who summarises the manifestation of the Absolute and the wisdom of the East in the formula +A +-A = 0, which Nicholas applies to the dialectic of his life episodes. During this time in Japan, he has a chance to visit China in the spring 1966, and is the first to discover the Cultural Revolution by interviewing senior Chinese officials - Western journalists were about six months behind. In late 1968, he becomes a lecturer at the University of Libya and begins his intelligence work while also writing as a journalist. A number of his articulate articles are printed in the appendix.

Nicholas has written separately about this time in his life as he was on the inside of another pro-Western coup that was meant to take place on September 5, but was pre-empted by Gaddafi on September 1, partly as a result of an article published by Nicholas on 24 August. This leads to a tumultuous period where his marriage collapses and he is beaten up and nearly executed. He vividly describes the challenges of life under this regime, but puts up an inner resistance so as not to succumb to these psychological terrorist tactics. His personal encounter with Gaddafi is fascinating – he tells Gaddafi's 'executioner' that his is the power of the pen rather than the sword. The reader learns in detail how the intelligence services operate in such a scenario, which gives everyday life a tremendous intensity. In the meantime, he is going through a purgation of suffering and loss at a personal level.

The next important development is his work as an unofficial ambassador for the Prime Minister Edward Heath in relation to black Africans and their liberation movements, but more especially with respect to the influence of China and the Soviet Union. He makes significant trips to Brussels and Tanzania. In the meantime, he takes work at an ESN school and lives in London. Here one gains an insight into what it is like to be a spy in terms of surveillance, bugging and one's room being ransacked for papers. One has to be in a constant state of vigilance and acquire techniques for shaking people off. During this period, he also has his most important mystical experience in September 1971 (an appendix tracks these experiences in more detail). He was aware of the timeless flow of light and love, to which he surrenders. All this is described in detail with diary entries from the time. It gives him the insight that his vision of truth was in conflict with the deceptive world of intelligence, itself in thrall to the agenda of the New World Order, about which Nicholas has written separately. This deception even extends to his relationship with his first wife's new husband, who is in different branch of security.



Even at Oxford, Nicholas had been warned that working for intelligence would eventually take over his life and control it. The culmination is a meeting with a senior intelligence officer where he is asked to sign a document saying that he will never see his daughter Nadia again. It is, of course, an impossible demand and they don't expect him to sign. Later, he finds out that the reason for his severance is a change of attitude to China and that the Prime Minister can no longer take the risk of having an unofficial ambassador. The official warns him that if the Chinese try to recruit him, they will know. He reflects that his exposure by the KGB in Fleet Street following the defection of a man he had been working with meant that he was operating with the full knowledge of the KGB and was therefore too much of a risk for the SIS to work with. Hence this ruthless demand to secure his severance and his conclusion that the SIS was ultimately an insensitive and inhuman organisation. He has had no contact with them since 1973 but has written this extraordinarily revealing account to set the record straight. He mentions one other significant aspect, namely that his projects would be denied publicity, and indeed it is surprising that his voluminous writings have not received more recognition. His experience of nationalism at this time was an important factor in his development of a universalist philosophy.

In the epilogue to this volume, he reflects on his double life as lecturer, poet, then teacher, agent and journalist. The layered pairs of opposites in the 15 episodes represent the tension between the positive and negative aspects (+A and+- A or double helix) that impel a transformation within the central self. I think he is right that this pattern and unity of episodes and layers is universal 'as an archetypal pattern of transformation and progress through experience towards a vision of the unity of the universe.' We all have a chance to live at this soul-based contemplative level beyond our ego-based activity of hedonistic enjoyment, but we do not all avail ourselves of this opportunity. However, I also agree that nothing is wasted in terms of our experience and that 'all experiences are essential to the final form of the self and to the pattern of its life.... in all lives the potential for a successful quest is present.' It is the work of what he calls the central self to unite and reconcile these episodes and conflicting sequences so that 'behind the unity of each being is the unity of

Being' and the same transforming law of Nature that governs not only the process and structure of pinecones but also that of human lives.

The inner and outer journey that Nicholas describes in this first part of his autobiography takes the reader to the heart of the human condition with its tension between opposite forces and the significant choices we all have to make in the course of our lives. One of these concerns the depth at which we ultimately live - things may be more comfortable on the surface, but there is greater intensity and fulfilment if we engage with the depth of life as well, with plus and minus, time and eternity, life and death, each of which is necessary to the other and to the unity of the whole. Nicholas has made a profound statement with this account of his life, and I look forward to reviewing the second volume in the next issue.

A Transforming Life

David Lorimer

GOETHE – A SHORT INTRODUCTION

Ritchie Robertson

Oxford 2015, 142 pp., £7.99, p/b – ISBN 978-0-19-968925-5

In 1878, Matthew Arnold wrote of Goethe (1749-1832) that he was 'in the width, depth, and richness of his criticism of life, by far our greatest modern man.' My first acquaintance with him was at school when learning German with a brilliant teacher Roy Giles who brought his poetry alive, and then again at University where I read German. Much later, I came across his science through Brian Goodwin and others, which led back to Steiner and the idea of a science of qualities. This short book covers six main areas of Goethe's life and work beginning with love and moving on to nature, classical art and world literature, politics, tragedy and religion.

It is appropriate to begin with love, as this played such a great role in Goethe's life and poetry. In his work he relates love of all kinds and at all stages of his life, with some women inaccessible and others where he had a much more physical relationship, sometimes described in graphic detail in his poetry. The journey to Rome in 1786 was hugely liberating, freeing him up from his administrative responsibilities in Weimar, where I once visited his house. The striking aspect is the contrast between the public rooms at the front and a very small rooms, including his bedroom, at the back. Goethe became famous at the early age of 25 with the publication of his bestselling novel *The Sorrows of Young Werther*. He joined the Duke of Weimar the following year, and the author describes the range of administrative duties involved with responsibilities for mining, road building, maintaining the army and finance. His practicality reminds one of Swedenborg, who was supervising engineering projects at the same time as recording his inner visions.

The chapter on nature is mainly concerned with his science. It is important, I think, to understand that Goethe was primarily a contemplative poet rather than a detached observer - hence his opposition to mechanised objectivity. He was highly sensuous and visual, leaving some 3,000 paintings and sketches. He was also influenced by the work of Spinoza and impressed by the dynamism and transformative capacity of nature. He tried to understand things from the inside out, hence his interest in form and emergence. Interestingly, he uses the word theory in its original Greek sense of contemplation or looking. The author gives an interesting explanation of *Steigerung* or intensification where Goethe refers to the task of distilling his individuality still further. He asks if Goethe was really a scientist, and it is here that he could have done with some more detailed references to current Goethean science in the work of Henri Bortoft and Arthur Zajonc. This is more sympathetic to a developmental rather than molecular approach to biology. Then, in connection with his theory of colour, there is a highly critical book written in the 1930s by Sir Arthur Eddington.

The chapter on classical art and world literature shows how Goethe regarded himself as a classicist even if some critics treat him as a romantic. He read French, Italian and English as well as Latin and classical Greek and translations from Persian and Asian literature. He had a particular sympathy for the Greeks, characterising their way of life as 'freer, more spontaneous, closer to the senses, less intellectualised than the modern world.' They celebrated the body as well as the mind, and Goethe was reluctant to prise these apart or indeed to separate himself from Nature. It was interesting to find out how little he thought of Dante - the devaluing of the physical world in Christianity might have something to do with this.

The chapter on tragedy compares Goethe's work with other writers and analyses his major plays. The most important point is his rejection of catharsis or false consolation and his insistence that his characters should rebound and do all the good they can. Goethe was also wary of conventional morality (he lived with Christiane Vulpius for many years before marrying her), taking Nature for his model, with its balance of creative and destructive energies. The author sees the redemption of Faust as due to his never abandoning desire and always striving for something that lay beyond him in terms of transformation and purification; also healing through the power of Nature. The author refers to the imaginative appeal for Goethe of the transmigration of souls without really taking it seriously. For me, dying and becoming is central not only to the life of Goethe, but to life in general.