

**At the Cutting Edge: Scientific Research into the Field of Ki**  
**Report from the conference 'Icons of the Field', 18-19<sup>th</sup> March 2006, at Friends**  
**Meeting House, Euston, London.**

I stood in the foyer of Friends' Meeting House, alongside William Tiller, the tall, white-bearded American scientist, as he told me the method of meditation he used to change the thermodynamic properties of water. I began to relax, as the years of scepticism peeled off me, and realised that at last the paradigm was truly shifting.

I have been waiting for 40 years for a paradigm shift. Back in 1964, when I had just left school, I attended an interview at Keele University, to study chemistry and psychology.

'Strange subject combination!' grunted the admissions tutor. 'Why?'

'Because I want to find the field through which healing can take place.' I answered naively.

'Humph! I really don't think we have anything for you here.'

It took me another 20 years to find 2 supervisors in the Department of Pharmacy at the University of Brighton, who were willing to help me explore the effects of very weak electromagnetic fields on living systems. There was a strong resistance in the life sciences to accept that invisible fields could affect solid matter. Quantum physics came in a discrete package labelled 'physics only', and 'true for only sub-atomic particles'. True interdisciplinary thinking was not the way of most science faculties yet.

However, in the large lecture theatre at Friends' Meeting House today, in 2006, here were world-class scientists presenting their paradigm shifting work on the ubiquitous and a-temporal effects of this hidden quantum field on large-scale physical systems. They had emerged from their separate laboratories and disciplines, crossing several continents, to present a unified front, and demonstrate through scientific experimentation, the interconnectedness of all phenomena.

They acknowledged, wryly, that although they were all men, as is often the case with top scientists, it had taken one woman to bring them here together. As Professor Gary Schwarz remarked:

'It is curious it's a female who brings us together, and also sees the big picture.'

That woman was Lynne McTaggart, the writer and founder of the web company 'What doctors don't tell you' (WDDTY), convener of the conference, small friendly and vivacious. Her enthusiasm since childhood for nutrition and health related subjects led her to explore the science of healing, and as a trained journalist to investigate and interview key scientists involved in ground-breaking related research. Some of these scientists, eminent professors in their respective fields of engineering, biochemistry, neuroscience, cardiology and physics, became her icons, as she realised that they provided a deeper conceptual framework for explaining the phenomenon of healing. This resulted in her best-selling book, published in 2001, 'The Field'.

'Lynne,' I said to her, as I found myself standing next to her in the coffee queue. 'Thankyou. You have written the book that I intended to write when I retired. But now you've let me off the hook!'

I have to admit that I was sceptical about the conference to start with. My scientific training and the natural defensiveness I have had to adopt to hide my hidden agenda in science, created an uncomfortable state in me, an unwilling suspension of disbelief. However, by the end of the first session, I was sold. I even wanted to watch the film, showing later that evening, 'What the Bleep is it all About'. Lynne and some of the scientists had participated in the production of this film, as a creative exploration of quantum field effects.

But it was the deep and underlying spiritual emphasis throughout the conference that won my heart. Experimental evidence was presented, demonstrating the power of intention to change matter, and the coherent state of consciousness that underpins all healing.

### **Professor Gary Schwarz**

The first speaker, Gary Schwarz, was introduced in the programme as Professor of psychology, medicine neurology, psychiatry and surgery at the University of Arizona, and director of its Human Energy Systems Lab. He has published more than 400 scientific papers, edited 11 academic books, and is the co-author of 'The Living Energy Universe'. His pioneering work led him to explore evidence for life after death, and for biofield effects that include transplant surgery organ memory, and the existence of consciousness independent of the brain and body.

Gary first related research work stemming from the Centre of Frontier Medicine in Biofield Science' at the University of Arizona, culminating in a new book called 'The God Experiments.' The specific experiments he described, involved biofield effects in bacteria, using Reiki healing, in which a double blind technique was used, involving healing and placebo treatment of heat-stressed bacteria. Significant positive and negative effects were observed., dependent on the well-being and emotional state of the healer. Experiments with rats showed that healing can reduce stress-induced damage. The rats' guts could differentiate between real and sham practitioners, and real healing reduced gut leakage. (*Baldwin A and Schwartz G.E. 2005*) Citing work to be presented at the 'Toward a Science of Consciousness' Conference at Tucson, Arizona in April 2006, Gary affirmed that 'doing' healing changes a healer's state, and that intention and belief were powerful tools for biofield affects, and that the positive biofield was more than just a placebo effect. He emphasised that minds matter, and cited experiments that demonstrated how the combination of positive patient belief coupled with real healing had a significant and superior outcome to a combination of disbelief and sham healing. (*Brooks A.J. Schwartz G.E. et al 2006*)

Gary then described how experiments using extremely low frequency magnetic field (ELF MF) Squid Magnetometer device measured the biofield effects from the hands of healers, and showed a significant increase in emissions from trained healers compared with untrained. He cited how new digital ELF MF detectors were capable of measuring extremely weak (0.1 milligauss) magnetic field (MF) fluctuations in an MF fields from the hands of healers. Therefore biophysical measurements of bioelectromagnetic fields in healers can be employed in basic research. He also cited use of biophoton imaging measurements of very weak light emission from plants and from healers' hands. The equipment used for this sort of luminescence measurement

is supercooled and very expensive, and very slow to use. It is quite different from the GDV (gas discharge visualisation) technique.

Both the ELF and luminescence measurements showed healers to have a dominant healing hand, often the right hand.

The experiments that Gary cited sounded truly cutting edge and paradigm breaking; however, he revealed that conservatism and prejudice in science was holding this work back. Despite the fact that he had over 140 papers, of which 6 had been published in the top journal 'Science' his biofield papers were still returned from journal submission unreviewed, and he had great difficulty getting funding for projects.

Perhaps the most controversial research Gary has been involved in concerns the phenomenon of cellular system memory, suggested by the change in personality and memories of some heart transplant patients. Gary suggested that emergent properties of systems involves consciousness and memory; that information and memory are forms of energy, and that in a holographic system, where memory loops are reinforced by circular feedback, evolution of the information can take place, and learning, and that this learning and transformation of information can take place in every part of the system. He also suggested that in a living energy universe, the total informational field can be accessed in certain states of consciousness, without the brain's mediation. This can give rise to precognitive dreaming, healing and near-death experience, and he gave details of research supporting these phenomena. He finished with a quotation from Einstein:

'The Field is the only reality'.

### **Professor Pim Van Lommel**

This led on, quite naturally, to the presentation by Dutch cardiologist, Pim Van Lommel: 'The informational fields of consciousness and the brain: a new concept based on recent scientific research and near-death experience.'

Pim Van Lommel was inspired early on in his career, by hearing near death experience accounts from his own patients. He subsequently undertook the largest prospective study of near death experience (NDE) in survivors of cardiac arrest, which is featured in a Lancet publication. 344 patients in cardiac arrest, showing all signs of clinical death, including anoxia, arrest of circulation and breathing, were studied for incidence of NDE. 62 out of the 344 patients had NDEs that met all the criteria for investigation. Of these, 50% had awareness of death, 56% had positive emotions and 24% had some out of body experience (OBE).

A longitudinal study investigated how all these 344 patients were affected between 2-8 years after their resuscitation. Significant transformational changes occurred only in those patients who had experienced NDEs. These changes involved the following experiences: no fear of death; new insights; intuitive sensibility; increased appreciation.

A common feature of NDE was the experience of transcendence, characterised by the following phenomena: veridical perception (out of body experience/OBE), holographic life review, interconnectedness, non-locality, no time or space, preview, encounters with deceased relatives, conscious return into the body, disappearance of the fear of death, or faith in the continuity of consciousness. Some or all of these phenomena may be present during an NDE. Pim described the various physiological conditions that have been found to induce similar states of transcendent experience recorded during the NDEs; these included electrical stimulation, decreased cerebral perfusion, and drugs. He spoke of the theory of transcendence, which implies the existence of the mind independent of the body, and the OBEs, or out of body experiences, that in some NDEs provided possible evidence of this. He described how in the Dutch study (2001) 18% of the 2% NDEs out of the total 344 patients scored highly in transcendence experiences; in the American study (2003) 9.5% of NDEs scored highly out of small percentage of the NDEs from the total of 116; and in the English study (2001) 11% of the small percentage of NDEs scored highly from the total group of 63. It is to be noted that the number of patients experiencing NDEs was usually below 12%. Out of these, only a few experienced OBEs.

Pim described one outstanding example of an OBE. During an emergency resuscitation, a patient's teeth were removed by Pim, and as he could find nowhere to put them, he stuck them in a drawer of a trolley. Later when the patient was recovering on the ward, the staff were looking for the teeth, but no one knew where they were. When Pim, as the consultant, appeared on the ward, the patient, who had never met him before, proclaimed,

'O, he knows where my teeth are! That is the doctor who took my teeth out. He put them in a drawer of a small trolley.' Pim remembered immediately, and the teeth were retrieved. Everyone was amazed that the patient could have observed this, as he was technically dead at that point. The only way he could have observed it is by veridical perception, in which his consciousness had left the body, and was observing from a superior vantage point.

Pim emphasised that during the time that the OBEs were experienced, and information stored in memory to be recalled later, the brainstem reflex was absent, there was no breathing and complete cessation of cerebral flow, and flat-line EEG. In other words, there was no brain activity to support memory or recall of the OBE. The OBEs had all the hall-marks of complete memories, involving feelings, clear enhanced consciousness, self-identity with emotions, cognition, non-sensory perception, memories or preservation of thoughts. They also included consciousness outside time and space and conscious return to the body.

Pim stated that use of all neurophysiological measurement techniques, including EEG, (electroencephalography) MEG (magneto encephalography), MRI (magnetic resonance imaging) and PET (positron emission tomography) provided no direct evidence of connection of subjective experience with neurons or neuron networks. He suggested that neuronal networks function merely as an intermediary for thoughts, in the same way that the radio does not explain the content of a radio programme. Out of 100 billion neurons, 20 billion are in the cortex and each has 10-100 synapses. The self-organisation of such a complex system causes coherence in the changing EMFs (electromagnetic fields) leading to a biological quantum coherence phenomena, like a vortex in running water. Each vortex can become an informational field rooted in phase space, rather than physically rooted. This informational field can be received by

the brain as waking consciousness, like switching on a TV set. Also, information from the senses can be transferred into fields of consciousness in the same way as a TV camera records and sends information. During cardiac arrest, this interface of waking consciousness is lost. However, the field of conscious information is still there.

Pim hypothesised that even though 50 billion cells die each day, there is still continuity of consciousness, and that DNA in each cell provides an interface function for information and that it can be the receiver as well as transmitter of personal identity and experience, allowing us to access information from the past. This might explain the phenomena of transplant memory. Pim suggested that although our waking consciousness is experienced in our body, our unlimited non-local consciousness does not reside in our brain. He stated, 'We HAVE a body; but we ARE consciousness', 'Death, like birth, is presumably a mere passing of consciousness from one state to another.'

### **Professor Karl Pribram**

The following speaker, Karl Pribram, was trained as a neurosurgeon and devoted his career to investigating the structure and function of the cerebral cortex. His theoretical writings include topics of perception, emotion, memory and planning. His brilliant understanding of the biophysics of the electromagnetic field functioning of the brain was shared with delegates in a series of beautiful metaphors.

He explained the historical shift from 19<sup>th</sup> Century understanding of fields and field effects, to the rise of statistics in the 20<sup>th</sup> century and the intellectual need for discrete things, numbers, objects and quanta to describe reality. He made it sound as if 20<sup>th</sup> century thinking had thrown the living bathwater out and kept the shrinking and shivering baby.

He showed Ohm's 1880 metaphoric diagram of the brain as a piano, an instrument on which the time series of a tune played sequentially on different chords, gives rise to a spectral or frequency domain in phase space. This spectrum can be described mathematically by the Fourier Transform (FT), as a pattern of energy and recorded. Karl described how the real world is sensed and turned into the virtual or 'mind' world by the collapse of the entropic, potential quantum experience of reality into the FT, energy field of memory or fact. This can happen when the cortex is repeatedly stimulated by the sensory areas, during waking consciousness.

He described how the field of consciousness is like a hologram. The brain uses a lens to create the discrete image, by filtering or Fourier transformation of the holographic potential field into the digital frequency domain. He gave a powerful demonstration of how the brain acts to collapse the 'blur' of quantum analogue reality into a discrete image.

Using a projector, Karl displayed the life size image of an athlete on a screen. He then removed the lens of the projector, so that only a round fuzzy edged, amorphous blue blur of light was on the screen where previously the discrete, detailed and focussed image was seen. He then took a pair of spectacles from his pocket, and walked up to the screen. Wherever he placed the spectacles on the 'blur', two miniature complete and focussed images of the athlete appeared.

I jumped out of my skin when I saw this, as I suddenly remembered an OBE I had had in my 20s, when I had awoken during in a dream, to find myself standing next to my bed, fully conscious as in every day waking life, but aware that my normal body was still asleep in bed. My voice was telling me to 'Look at your feet'. Everything was out of focus. I was in a different body from my normal everyday body, and it was just like a blue blur; there were other similar blurry blue orbs close to me, but they were also out of focus. The effort to focus was so difficult. I tried, and the effort was so intense that I ended up spiralling in a powerful white helter skelter of light with a deafening whoosh back into my body. I was very excited, as I knew I had experienced a full consciousness outside my normal body. Karl's demonstration of the nature of the holographic mind was a wonderful description of this state.

### **Professor Hal Puthoff**

Hal Puthoff has been researching at the frontiers of knowledge into consciousness and the fields of consciousness for more than 25 years. He was a pioneer of the US government's controversial Remote-Viewing programme, and is currently Director of the Institute for Advanced Studies and Zero Point Energy, and conducts experiments into extracting energy from the vacuum, which he terms 'Zero Point Field'.

Hal's research field is reminiscent of StarTrek, and theorises about warp drives and worm holes in space. His original research into the effects of quantum entanglement in living systems involved working with algae. However, a serendipitous encounter with a psychic medium led him to work instead with clairvoyants and psychics. His experiments soon showed that certain people were adept at accessing the quantum informational field of consciousness and could describe phenomena not apparent to their senses, and spatially and temporally separated from them. Certain people could be trained to develop this special sensitivity. The attention of the CIA and military was drawn to his research lab, after a subject accidentally accessed a top-secret government installation, which, unknown to the experimenters, was close to a target grid reference in an experimental viewing. Descriptions and top-secret data from this installation were innocently published in a paper, and it took some time to convince the military that spying was not involved, and that extra-sensory perception was being demonstrated. This was during the cold war years, and it was appreciated that such work would provide useful information about the enemy installations. It was known that the Russians were already investing in such research. This resulted in a long government funded research project to train, develop and investigate 'remote-viewing'. This top-secret work is now declassified and in the public domain.

During the presidency of Jimmy Carter, a quotation from Reuters made it clear how this research was useful to the government. It was quoted that a plane went down in Zaire, and spy satellites failed to locate it. The CIA Director, Admiral Stanfield Turner, turned to a remote Viewer. Carter said: 'She gave some latitude and longitude figures. We focussed our satellite cameras on that point and the plane was there.'

Some of the most interesting work cited by Hal, showed evidence of prediction, and how consciousness could be trained to access a larger a-temporal information field, and how he, personally, with a group of spiritually-minded people, had used this skill

to forecast the stock market and raise some essential money for an educational project.

He spoke of the nature of this phenomena in which the brain often failed to interpret the information. The right hemispheric pattern of recognition in psychics made it difficult for them to interpret, as interpretation was often a left-brained activity. It was noted that when drawings or descriptions of phenomena were given, there was sometimes a left-right reversal.

### **Professor William Tiller**

Bill Tiller, Professor Emeritus of the Department of Materials Science and Engineering at Stanford University, has spent 34 years in academia, after 9 years as an advisory physicist with the Westinghouse Research labs. He has published over 250 scientific papers, 3 books and several patents. At the same time he has also pursued serious experimental work in psychoenergetics, or futuristic physics. He has published 100 scientific papers in this field, and 2 seminal books.

Bill spoke about a psychophysiological principle, which supports voluntary control of internal human states and that biofeedback tools act as aids to altering one's own physiological state and consciousness. He spoke of other researchers, Slater and Wolf who theorised that we are highly malleable to our expectations, belief systems and intentions and described an experiment by Stuart Wolf, in which pregnant vomiting women were told they were being given an anti-emetic. In fact some were given an anti-emetic and some were given a placebo; and the placebo was found to work just as well as the anti-emetic. In another experiment they were given what they believed was an anti-emetic, but was in fact Ipecac, a powerful emetic, and it worked as an anti-emetic according to their belief, and prevented vomiting. He described various experiments in which heart rate variability was controlled by sending 'love' to the heart., and how DNA in a test tube had been shown to significantly unwind when the experimenter focussed intention on this outcome.

Bill explained that there is an unstated modern assumption that no human qualities of consciousness or intention can change physical reality. However, his experiments have been disproving this assumption.

He described experiments in which he has successfully attempted to raise or lower the pH of water, to increase the in vitro thermodynamic activity of liver enzyme, and to increase the in vivo ratio of ATP/ADP in fruit fly larvae. For these experiments he has made use of an intention-imprinted electronic device (IIED) which is a small microwatt electronic device, comprising an oscillator. To imprint this device with intention, a small number of meditators sit around a table. The device, in the centre of the table, is switched on. The meditators link to each other and to the cosmic unseen energy field of the universe. They mentally cleanse and empty their minds, and after five minutes or so, they make an imprinting statement, which is like a strong mantra or verbal affirmation of intention, for example: 'our intention is to activate the indwelling consciousness to increase the pH by 1 pH unit; ie to decrease the hydrogen ion content by a factor of 10.' The group uses a visualisation technique in which this outcome is seen. They then say simply, as in the standard Lord's Prayer: 'Thy Will be done'. The intention to seal the device until use is then stated. And the device is

wrapped in aluminium foil and placed in a faraday cage until use. Subsequent use of such a device in an experimental situation showed a significant shift in the measurement parameter (eg pH) compared with the use of a control or unimprinted device. Bill suggested that during meditation, the consciousness of the experimenter accessed an interface dimension he called reciprocal R space, where the quantum properties of the electromagnetic phase space ( a space he called the R space of magnetic monopoles) and the phase space dimension of our physical reality (D space) could couple and 'superluminal information transfer' could take place between 'entangled particles'. This interaction, when coupled with conscious intention, could shift the probability envelope of a specific outcome, in the intended direction.

He suggested that the underlying energy of the universe, or Ki, has as its basis the magneto-electric field, and that all humans have ki, and that ki can be manipulated via the meridians or chakras, as in acupuncture. He suggested that we act as Ki or Prana pumps. Our intention can be used to move Ki, but in order to do this, meditation or consciousness control is necessary.

I found Bill's experiments very interesting, and spoke to him later about his measurement system, and whether there was any possibility of artefacts or random drift. He assured me that all possible controls had excluded measurement errors or artefacts, and that the changes were well within the resolution scale of the instrumentation, and were repeatable.

In conclusion, I have to admit that I have not had access to the scientific papers that describe these experiments in detail, and I am unable to comment on them. My training would require me to scrutinise them, and then attempt or find replications of the work in other laboratories before accepting the findings. My aim in writing this report is to convey the ethos and information presented at the conference, and capture a flavour of the integrity and intellectual depth of the presenting scientists.

The overriding message of the convention was a powerful and positive invocation for transformation of our inner and outer world, in order to heal the earth and align ourselves with the self-evidencing truth of our multidimensional reality. It was suggested that through the exercise of coherent brainwaves during the practise of meditation, we can allow our consciousness to access the larger field in which quantum effects of non-locality and timelessness are apparent, and precognition and clairvoyance and transformation are evidenced. The phenomenon of life and consciousness is ubiquitous, and death can be seen as a transition from one state of consciousness to another. The brain is merely a physical lens that enables us to focus our consciousness in the corporeal reality. Without the lens, the consciousness is still there, but unfocussed. The reality of the whole is present at every point, as in a hologram, and just requires a focussing lens like the brain to converge and collapse the fuzzy quantum state of uncertainty, or multiple probabilities, into one state. However, in shifting our focus, or defocussing, as in meditation, into a coherent quantum state, we can access the larger picture; but it is often difficult to interpret, because it is without the active conceptual working of the brain. In this state, healing or renewal can take place; profound shifts can be encouraged, and different probabilities can be accessed and emphasised. Intention is important and directs the change.

The ability to transform the physical state, or realign and 'heal' is dependent on the ability of the healer to produce this coherent brainwave pattern, and access the quantum state. Some experiments indicated that when a healer is out of kilt or in a low energy state, and not aligned, deleterious effects may be observed. The flow of energy may be reversed from receiver to giver, depleting the receiver. This was seen as a salutary caution for healers to only work when they are in good health, physically and emotionally.

The speakers were all successful scientists within their own conventional branches of science, but through chance or serendipity had been drawn to work with unconventional and often taboo topics, sometimes to the detriment of funding and obtaining publication, but had pursued these topics out of commitment to the truth and the 'hidden but self-evidencing Field.'

### References

Lynne McTaggart, *'The Field'*. Element Books 2001.

Baldwin A and Schwartz G.E. 'Personal Interaction with a Reiki Practitioner decreases noise-induced microvascular damage in animals' *Journal of Alternative and Complementary Medicine*, 2005 (in press)

Brooks A.J. Schwartz G.E. Hamilton A; Reece K; Nangle G. 'Interactin of Distant Johrei and Patient Belief in Receiving Johrei on health outcomes: A double blind study'. (Tucson Az. April 2006, *Towards a Science of Consciousness*).

Greath K, Schwartz GE, 'What Biophoton Imaging of Plants Can tell us about Biofields and healing' *Journal of Scientific Exploration* 19(4) 531-550 (2005).

Schwartz G. 'Organ Transplants and Cellular Memories' *Nexus*, vol 12, no 3, 2005.  
Schwartz GER, Russel LGS, 'The Living Energy Universe', Charlottesville VA. Hampton Roads Publishing, 1999

Russel Targ and Keith Harary; 'the mind Race. New English Library, 1984.  
Kenneth A Kress 'Parapsychology in Intelligence. A persona Review and Conclusions. *Studies in Intelligence*. CIA, Winter, 1977 (declassified).

William Tiller: 'Science and Human Transformation' ISBN 1-929331-05-3  
William Tiller: 'Conscious Acts of Creation: The Emergence of a New Physics' ISBN 0-9642637-4-2.

William A Tiller PhD 'Some Science Adventures with Real Magic' ISBN-1-929331-11-8.

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Elizabeth Davies  
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