## Science to Sage International E-Magazine

Bridging Science & Ancient Wisdom

### RELATED ISSUES



Science to Sage e-Magazine's are Themed, designed and produced by Karen Elkins

This issue for me was a reinforcement of the ALL of God, the Force in which it is said in many ancient scripts I am everything, and everywhere, I am that, I am. To understand the idea of "I am the Light of the World", and to know that ALL is a manifestation of light is to know that nothing happens without this gift. The gift of life is light. It is the charge, the current that carries the message, water is the medium, the container, and the particles are the dance of in-formation. We dance in formation, to the tune of our story, or stored information. ALL of life is sacred when we look at it from this perceptive.

When we look to ancient wisdom the clues are everywhere. From the stained glass windows, to mosaic tiles we see the essence of God is represented and is seeing through a tapestry or likened to a kaleidoscope.



# CONTENT

Special thanks to the contributors. I am grateful for their articles and inspired work. Their contribution and fascination with water enriches and transforms our understanding of our designer universe.

All material is copyrighted by Science to Sage or is copyright of the authors. Science to Sage reprints these articles with the consent of authors

### All is Light

The Smallest Form Gene Webb

Light and Water Gerald Pollack

Waters Information Randy Hatton

How Sound Gives Birth to Light John Stuart Reid

The Influence of Consciousness on Matter Dr. Konstantin Kovotkov

Excerpt from Autobiography of a Yogi Paramahansa Yogananda

Double Spit Experiment Dean Radin, Leena Michel, Karla Galdamez, Paul Wendland, Robert Rickenbach, and Arnaud Delorme Institute of Noetic Sciences

Mediumship and Tapping IN Tony Stockwell

Part 2 Electrodynamic Life\_Field & Body Electric Dr. Mae\_Wan Ho ( Part 2 in April )

Near\_Death Joyce Hawkes Ph.D

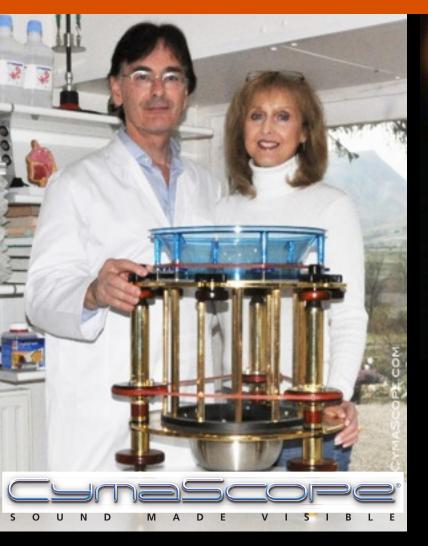
Photography of Flowers Krishna Madappa

Four Angels of the Apocalypse David Heskin & Aloria Weaver

InsideOUT: The Visual Guide to Our Designer Universe Excerpts from Karen Elkins

Thanks Wikipedia for accents

### SCIENCE TO SAGE RADIO



Co-inventor of the CymaScope, John's work is inspired by acoustic pioneers, Ernst Chladni, Mary D. Waller and Hans Jenny and has taken their findings to a new level. His primary interests lie in investigating sound as a formative force and discovering why sound heals.

> As seen in the upcoming April Issue – Science to Sage Magazine

John Stuart Reid How Sound Gives Birth to Light April 2

12pm, Central Shows Archived

Log in - awakeningzone.com



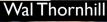






ohn Stuart Reid

John Hagelin





**Richard Merrick** 



Joyce Hawkes

### RADIO LINE-UP

### Awakening Zone Live 12pm Central

### **April - Our Conscious Universe**

#### April 2, John Stuart Reid

• Cymatics and the Science of Sound, How our Songs and Words Reach the Stars

#### April 16, John Hagelin Ph.D

 Unified Field Theory and How it Relates to Our Consciousness

### May - Electric Universe

#### May 7, Wal Thornhill

The Electric Universe Model

#### May 21 - <u>Leigh McCloskey</u> Artist, Mystic and Actor

• The Art of Science and the Mystical

### June - Sacred Spaces ,Soul to Cell

June 4, <u>Richard Merrick, M.S.C. S</u>

Venus Blueprint
 Uncovering the Ancient Science of Sacred Spaces

#### June 18, <u>Joyce Hawkes</u> Ph.D

• Finding the Bridge from Soul to Cell

### host Karen Elkins

### Bridging Science, Spirituality & Ancient Wisdom





www.sciencetosage.com www.awakeningzone.com/ www.crimsoncircle.com/



### A GLOBAL NETWORK FOR A GLOBAL AWAKENING TUNE IN TO THE AWAKENING ZONE TODAY

- Tune in 24 Hours a Day listen to live shows or archives
- Shows offered in English, Spanish and 15 other languages
- Always free, always easy

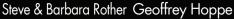


Lee Carroll



Joe Rumbolo







Jim Self





Jonette Crowley



Dee Wallace



Over 50 top Hosts including:

Jean Adrienne

**Garret Annofsky** 

Dr. Douglas Davies

Norma Delaney

Plus 30 international Hosts



Sandie Sedgbeer



Pepper Lewis



#### W W W . A W A K E N I N G Z O N E . C O M

SPONSORED BY THE CRIMSON CIRCLE - www.crimsoncircle.com



Dr. Meg Blackburn



### Live Happier, Healthier, and more Intentionally

APRIL 20-21, 2013 I VANCOUVER, CANADA



### Join your peers and spend the weekend listening to some of the most inspiring authors of today!



### **Register Early!** This Event Will Sell-Out!



Become a Certified Angel Card Reader with Doreen Virtue and Radleigh Valentine Vancouver, BC April 22.

To Register Call 1-800-654-5126 or visit www.hayhouse.com/events



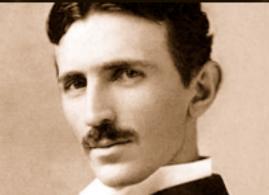
"My brain is only a receiver, in the Universe there is a core from which we obtain knowledge, strength and inspiration. I have not penetrated into the secrets of his core, but I know that it exists". NIKOLA TESLA





### WHY ARE YOU DIVINE?





### Because You are an Emanation of Creation Itself.

The option you have is the stillness of the void or to make active and animate yourself, creating and manifesting into form your thoughts and desires.

Karen Elkins

There manifests itself in the fully developed being, Man, a desire mysterious, inscrutable and irresistible: to imitate nature, to create, to work himself the wonders he perceives. Long ago he recognized that all perceptible matter comes from a primary substance, or tenuity beyond conception, filling all space, the Akasha or luminiferous ether, which is acted upon by the life giving Prana or creative force, calling into existence, in never ending cycles all things and phenomena. The primary substance, thrown into infinitesimal whirls of prodigious velocity, becomes gross matter; the force subsiding, the motion ceases and matter disappears, reverting to the primary substance.

Man's Greatest Achievement, 1907

NIKOLA TESLA

I AM that which cannot be measured or known, but I reveal Myself as I wish...I am the All, Since I exist in everyone. – Trimorpic Protennoia









### THE COSMIC ONE SEES THROUGH DIFFERENT LENSES

I Am in everything. I uphold the heavens. I Am the foundation which supports the

planets. IAm the light that shines everywhere, that gives joy to souls.

– Manichean psalm

### THERE IS NO ONE OF A KIND THERE IS NO ONE WAY

### **It's All About Perspective**

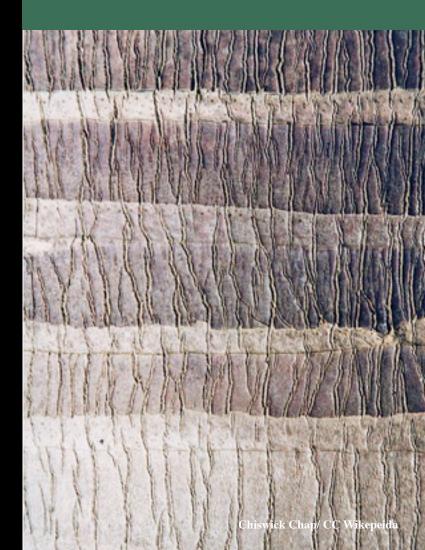
There is no ONE of anything, be it types of people, plants, animals, or bugs. We live in a spectrum of color and a multi-cultural universe.

We too often get caught up in a single point of view without looking at another's perspective. Why do we judge, when we could otherwise become an explorer and get to know someone elses world. It is often said that one of the greatest gifts you can give someone is to listen. We all need to be heard, seen and felt.



# FROM THE ONE CREATOR

IN <u>CRYSTALLINE SOLIDS</u>, THE PARTICLES (ATOMS, MOLECULES, OR IONS) ARE PACKED IN A REGULARLY ORDERED, REPEATING PATTERN.











**Everything is a pattern,** from your skin to your life story. You like to think of yourself as unique and special, yet you can see that this formula creates ALL of life. We are part of this tapestry of creation, expressing itself through different and repeating patterns. This is present in all body types and cellular structures.

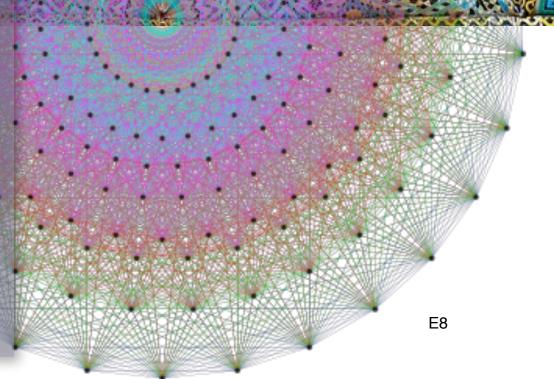
http://flickr.com/photos/7326810@N08/1636684209

Ancient civilizations understood the construct of the universal design





"An Exceptionally Simple Theory of Everything" by Anthony GarrettLisi is also know as the E8 Theory. This theory shows the geometry of space and how things unfold via gravity, particles and s pin within the coordinates of this grid.



### THE KALEIDOSCOPE IS LIFE

In <u>mineralogy</u> and <u>crystallography</u>, crystal structure is a unique arrangement of <u>atoms</u> or <u>molecules</u> in a <u>crystalline liquid</u> or <u>solid</u>.

A crystal structure is composed of a pattern, a set of atoms arranged in a particular way, and a lattice exhibiting long-range order and symmetry. Patterns are located upon the points of a <u>lattice</u>, which is an array of points repeating periodically in three dimensions.

# MATTER NEVER DIES

Crystallization is also a chemical solid-liquid separation technique, in which mass transfer of a solute from the liquid solution to a pure solid crystalline phase occurs.

# God Is Light

"I Am the light which shines everywhere. I Am the All. All things have gone forth from Me, and all things shall return to Me. Cleave the wood and I Am there. Turn the stone, and you will find Me."

The Gospel of Thomas

"Behold, your form is nothing but light!"

- Paramahansa Yogananda



### I AM THE LIGHT OF THE WORLD

THEN

We are a projection of source from our inner space to our outer space.

Curious, rainbows only appear if you are not facing them, you can never get to the end of them, and they don't manifest at any one location.

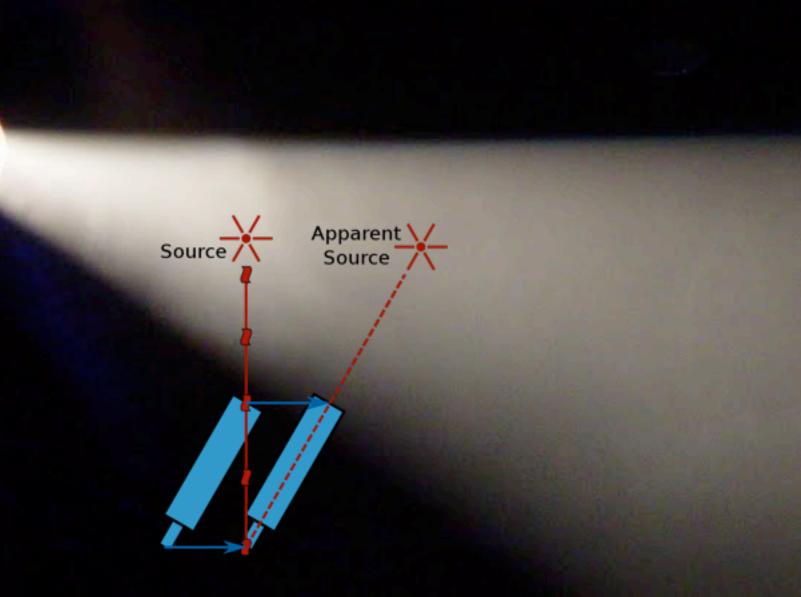
IT IS A MYSTERY. IF YOU MEET IT, YOU CANNOT SEE ITS FACE. IF YOU FOLLOW IT, YOU CANNOT SEE ITS BACK. THE TAO TE CHING

SURFACE IS COMPOSED OF TRIANGLES.- PLATO

Encompassed in this triad is the formula for creation: light, matter and energy.

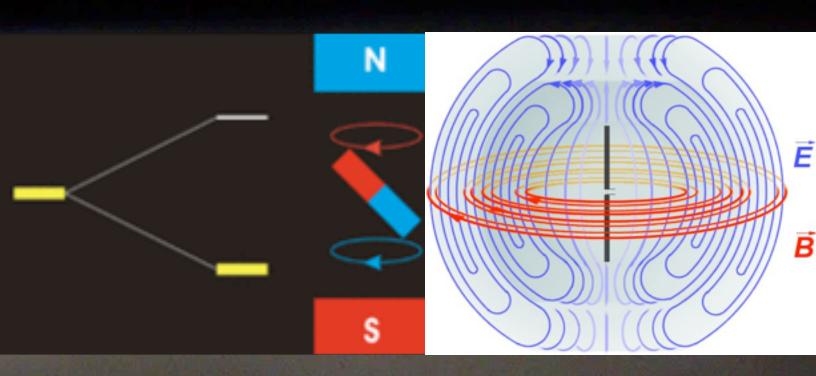
"MATTER IS ENERGY. ENERGY IS LIGHT. WE ARE ALL LIGHT BEINGS." ALBERT EINSTEIN

So consider that source is in everything, is everywhere, it's all God and we are all a treasure.



### GUIDING & LIGHTING "THE WAY"

THERE IS BUT ONE UNIVERSE, ONE MIND, ONE FORCE, ONE SUBSTANCE. THE SUBSTANCE, OR BODY, OF GOD IS LIGHT. THE SUBSTANCE OF ALL 'CREATED' THINGS IS LIGHT. LIGHT IS THE LIVING SUBSTANCE OF MIND IN ACTION. LIFE IS THE PULSING, ELECTROMAGNETIC OSCILLATION OF THINKING MIND. WALTER RUSSELL, "THE UNIVERSAL ONE"



Nuclei behave like they had own <u>magnetic</u> <u>moments</u> (<u>spin magnetic moments</u>).

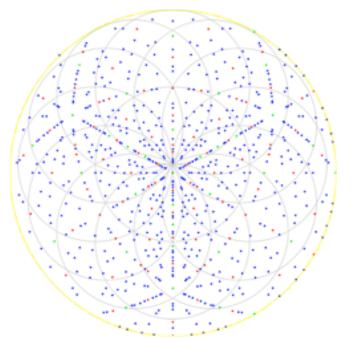
We exist within a matrix, a field of energy. Energy is exchanged via an electrical structure of light.

In "electrical" talk we are exchanging positive or negative (-& +) charges. Also at the heart is the e-motion that attracts. It is our radiance we share.

Our sphere of influence is our very own surround sound system. - Karen Elkins

### ELECTRONIC STRUCTURE

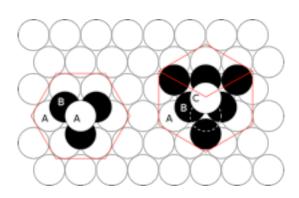
### OF A MOLECULE OR CRYSTAL IMPLIES ESSENTIALLY ITS **CHEMICAL PROPERTIES.**



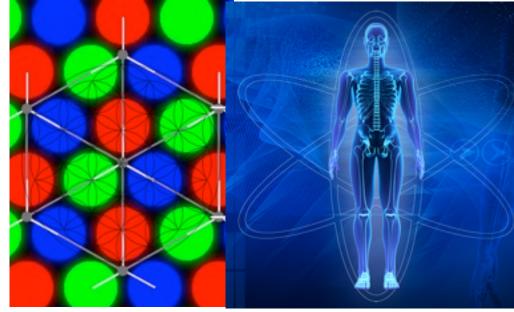
We are part and particle of God's array. We are all elements of nature and our nature is elemental to how we experience our world. Be it chemistry, biology or physics--it is just a "state" of being. There is ONE universal truth, and ONE Mastermind of this design.

- Karen Elkins

### THE GOD PARTICLE OF INTELLIGENCE





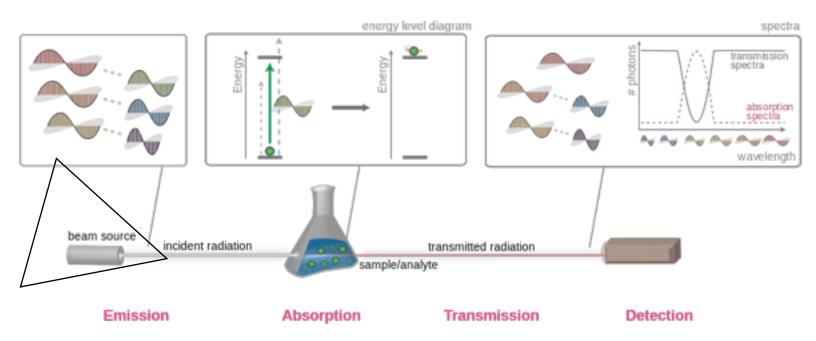


PLASMA (CHARGED LIGHT) FORMED INSIDE A GAS FILLED SPHERE

The electromagnetic waves that compose electromagnetic radiation can be imagined as a **SELF-PROPAGATING** (self-aware) transverse oscillating

wave of electric and magnetic fields.

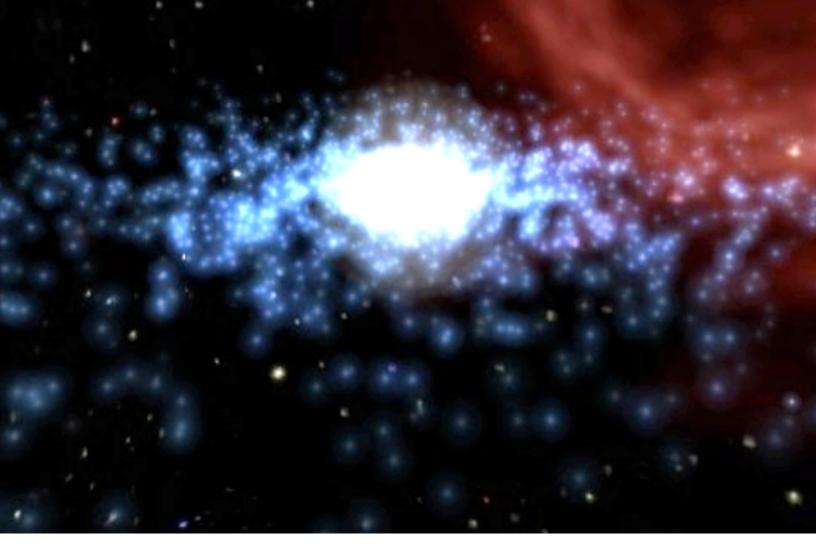
#### AN OVERVIEW OF ELECTROMAGNETIC RADIATION ABSORPTION.



# BY GENE WEBB

### THE SMALLEST FORM

of any existence is a particulate of intelligence. It is the most refined and pure of all substances. As a particulate it has form and energy. Its ability to move is instant, regardless of the distance.



ITS ELECTRICALLY CHARGED STRENGTH AND INFLUENCE IS HOLDING EVERYTHING IN THE UNIVERSE TOGETHER.

Its presence experiences being everywhere at once (omnipresent). A close representation of this particulate of intelligence is in the substance of physical light and as such the photon of physical light (300,000 m/s) experiences being everywhere at once. The photon of physical light also responds to communication instantly when split in half. Whatever influence or information recorded in of the halves one new is instantly communicated to the other new half causing it to respond instantly regardless of the distance (entanglement).

These particulates currently are undetectable by physical instruments, but their existence is demonstrated by their effect on everything. Just as the tensile strength that holds the massive elephant together gets stronger in the smaller mass of the mouse, it is even more powerful in the smallest pure particulate of intelligence. It has the most power or charge of them all, so powerful that the field (collective excitation) of intelligences becomes the shroud that holds and forms the clusters and galaxies in the universe. Sometimes this is referred to as the aether or dark matter/energy.

I PERSONALLY THINK THE NAME SHOULD BE CALLED GRAY MATTER, INDICATIVE OF THE INTELLIGENCE FROM WHICH ALL THINGS ARE MADE.

#### MICRO TO MACRO - PARTICULATES

31.25 Mpc/h

EACH "PARTICLE" REPRESENTS APPROXIMATELY A BILLION <u>SOLAR MASSES</u> OF DARK MATTER. <u>HTTP://EN.wikipedia.org/wiki/Particle</u>

### INTELLIGENCE AND INTELLIGENCES ARE ENTITIES THAT HAVE EXISTED FOREVER.

Mankind seems to always look for a substance that is the basis of all life and volition (ability to at will), something that can be move distinguished as separate or apart from everything else, something that is an existence unto itself as a form or essence or a principle of definition. Intelligence truth bv is also something that is capable of consciousness of self and can define the boundaries that become the fundamentals of all life. Meaning that the source of all phenomena is light.

THE PARTICULATE OF INTELLIGENCE/ LIGHT IS THE PURIST FORM OF MATTER and can be collected together. It is the COLLECTION OF ENCODED INFORMATION that causes it to form all other **ELEMENTARY** PARTICLES OF THE BASIC ELEMENTS.

Since light bears many properties of intelligence will use it to explain the process of development we call life. The charged particles such as electromagnetic energy or light (bosons) are the medium used by electrons (leptons) to exchange energy with one another and perform chemical reactions that form bonds and change the state of matter. It is something we interact with constantly.

G2

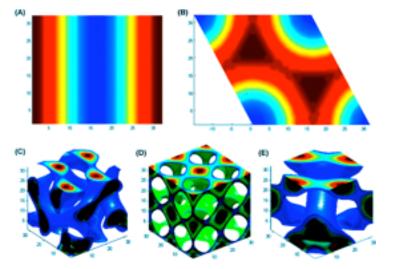
Quantum intelligence has an ability to choose one state or another. Fundamentally, each atoms memory is the particulates of intelligence directing the electron to animate the atom allowing it to interact with other atoms and then become part of the mass so that it remains anchored together.

This wireless coupling creates resonance between information processing states much like microtubules function as both scaffolding and as microprocessors for the cell. Ribosomes are a form of enzyme (frequencies) that read the coded information in the RNA strands and manufacture proteins that are the building blocks of intelligence for various cell structures.

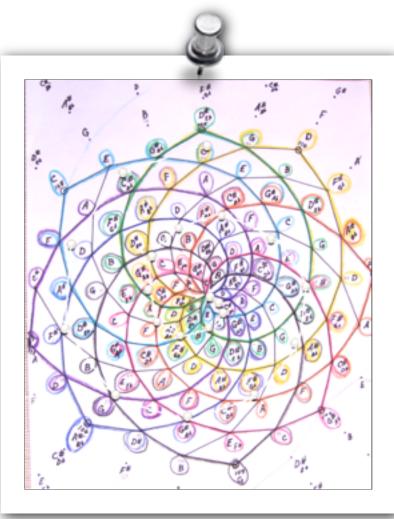
### THIS IS AN EXAMPLE OF SELF KNOWING SELF.

This is a model of information exchange among particles. It is the vibratory resonant code that arranges each particle in the atom and determines the excitation levels; it is the pattern of vector points that unfold the nodes of a pinecone. This geometric pattern shows where the stabilizing charges are in the electric design that bind each other together in an intelligent form in the field. All elements arrange in a periodic table in an orderly and intelligent pattern. This pattern has a ratio that begins at the particulate of intelligence. Walter Russell called it the Alphanon, which is the beginning and the end of the elemental chart as it cycles back to the Alpha point and starts all over again: The endless cycle of life. The quantum exchange of information is about these particles having the capacity to perform quantum computing and provide a mechanism for consciousness. The intelligent light of enlightenment, a higher form of light. It is about conscious interaction.

This embodiment of intelligence or crystallization of light can be added upon to create a body of collective intelligence. This embodied intelligence becomes life in a number of forms. When it reaches a higher state of intelligence it becomes known as human.



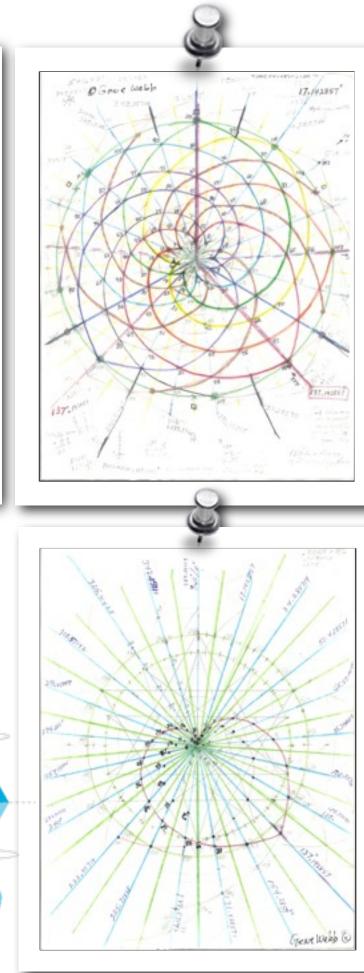
MICRO TO MACRO - PARTICULATES



Your song is played out in the harmonics of the spheres. You're DNA is an expression of your song in the musical spiral of life.

These diagrams are all a refection of the light spectrum and the electromagnetic pulse pattern. Illustrated by Gene Webb.

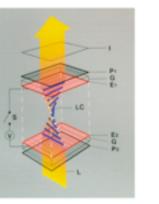
This becomes the code that is given to everything that takes form or shape.

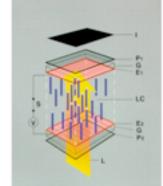


### BIOMIMICRY!

Our development of Liquid Crystal displays mimc natures optic process. It reveals the true nature of all forms of light. It is all done through electromagnetic proprieties.

Electrical systems get their charge though spiral networks of Hexagonal structures!





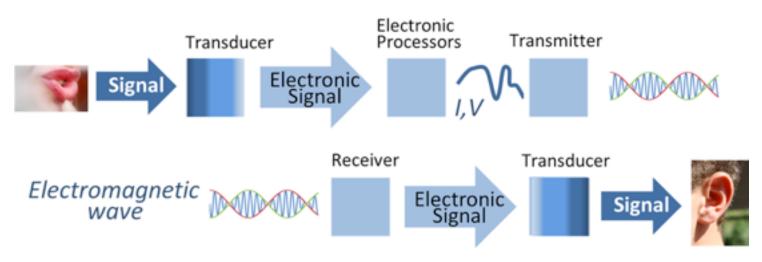
The collective intelligence gains an awareness of the mind. It knows it can be the object of its own thought. It can inquire and answer, it can move or sit still, it has emotions and can engage in activities with other intelligences.

This idea of abilities gives it power to change things in its surroundings. It has the ability to perceive the differences between itself and not self by the use of five senses: touch, smell, seeing, hearing, and taste. All of which relate to light, electric and sounds sensations.

Humans and other forms of intelligence are part of the matter that surrounds us, such as air, water, fire, earth and space--also known as the forces of nature and relate to our living electric universe.

Humans are capable of perceiving beyond the physical senses to generalize an idea from "this" object to many objects, from one that you see as physical to one that you conceptualize. Humans have the ability to think of things past, present, or future, and divide them into sequences.

### WE MIMIC NATURES DESIGN!



# Solar

### Cellular... Your cosmic download? Jacob's ladder of light!?

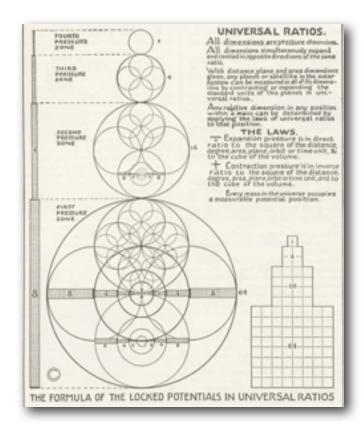
We can distinguish between the outward being and the inward senses and can recall a memory and describe it in detail, and with conscious effort change the scene pictured in the mind and feel the emotions associated with the thought. These abilities gives humans the act of free will or consciousness.

SO WHAT MAKES ALL OF THIS WORK? THE "SUPREME INTELLIGENCE" OF CONSCIOUSNESS DIRECTS THE PARTICULATES OF INTELLIGENCE WITH INFORMATION THAT ENCODES AND ENABLES LIFE.

"This becomes the grand moving cause of all intelligences and by which they act. This is the great positive, controlling element of all the elements. It is omnipresent by reason of the infinitude of its particles and it comprehends all things. It is the controlling agent or executive which organized and puts in motion all worlds, ... by which commissioned agents raise the dead and heal the sick. Its' inherent properties embrace all the attributes of intelligence and affection. It is endowed with knowledge, wisdom, truth, love, charity, justice, and mercy in all ramifications. In short, it is the attributes of the eternal power of God."(P.P.Pratt)

This power over life and life giving forces is inherent in humans as they progress to higher states of intelligence. The physics and the power to follow the correct patterns will lead to the controlling and creation of all things.

Article by Gene Webb



### UNIVERSAL SONG

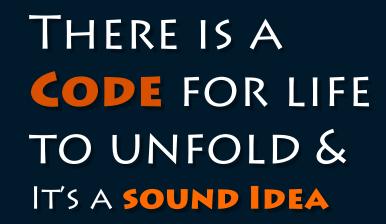
Nature divides all of her expressions of energy into octaves and tones of equal constants of equal dimension. The dimensional relationships of octaves and tones vary in ratio which are absolute and universal.

### IN EQUAL MEASURE

Sacred geometry is a method representing the metaphysical relationship between physical and spiritual existence, between consciousness and unconsciousness, between the individual and the Universal.

Walter Russell, "The Universal One"





#### **COLORS FOR ELEMENTS**

When chemical elements are in a luminous, active state (ionized), element emits a characteristic set of spectral color lines which can be observed by the use of an optical device: a spectroscope (there are also invisible lines). These are known as "Fraunhofer emission lines" and are always in the same relative positions in the spectrum of each element, somewhat like an identifying fingerprint. A compound will exhibit the lines of all its component elements.

### THE ELEMENTS WATER RANDY HATTON

Fraunhofer lines normally are seen in a spectroscope as bright colored bands of differing intensities. However there is a technical procedure for shining white light through the element under ionization which causes bright lines to disappear and in their place a dark lines. Where the element had been a emitting energy of certain frequencies (Fraunhofer emission lines), now it is absorbing the same frequencies from the Light energy; appropriately, the dark lines are called "Fraunhofer absorption lines" research and discoveries by a man named Dinshah P. Ghadiali (1873-1966)

#### LIGHT SPECTRUMS AND WATER

Because water has 440,000 individual panels in 1 molecule, it is the most programmable substance on the planet, a liquid crystal. It has become very clear,that different colors of light on water will effect it in different ways. For instance we want more: (calcium - orange) (magnesium - yellow) (hydrogen - red) (iron - lemon) (nitrogen - green) (oxygen - blue) (potassium - magenta) These are just a few examples, so when water is naturally ionized, energized completely open to outside influences, it's easily programmed. I have tried this in a commercial hydroponic operation, it's very clear that it works. If the plants are low on nitrogen use the color green, which is equivalent to the frequency 531.5 and the music note C- frequency 523 for sound can also assist in the programming of water.

WHAT IT REALLY COMES DOWN TO, IS LIGHT SPECTRUMS ARE IMPRINTING "INFORMATION" INTO THE WATER.

### VORTEX ART LIQUID LIGHT SHOW





### BY RANDY HATTON

http://www.vibrantvitalwater.com/

### WATER IS 'CONSCIOUS'.

ITS A LIVING, BREATHING MEMORY CONTAINING BEING/ ELEMENT, IF IT IS TREATED WITH RESPECT, LOVE AND HONOR, IT WILL GIVE LIFE. BUT IF ITS ABUSED AND MISUSED, IT CAN DEPLETE LIFE.

### **Vibrant Vital Water**

Learn more here...

- VORTEX MAGNETIC
   ENERGIZER
- WATER ADDITIVES
- WATER FILTERS
- SHOWER FILTERS
- LIGHT LIFE TOOLS
- FUNCTIONAL ART
- · BOOKS & DVD
- · EDUCATION
- VIDEOS

www.vibrantvitalwater.com/





### PARTICULATES

HE IS BODILESS, YET EMBODIED IN

1881947 15 kV x3 898 18 84

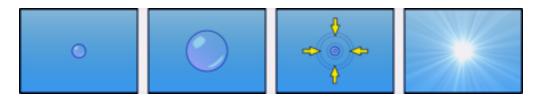
EVERYTHING.- THE BEING OF ATUM



### **EXPRESSION OF MIND**

### A DESIRE BUBBLES UP

...ignites a charge and crystalizes an idea into form. This allows us to 'matter' and engage and to trans**form**. Depending on the particular perspective, any sphere, from a grain of sand to a planet, is its own little orb busily orbiting in some atmo**sphere**.



### WE MIMIC NATURES DESIGN! TRANSFER OF PURE LIGHT

"WATER AT INTERFACES IS HEXAGONAL and has the ability to support and protect the DNA from free radical oxidative damage, and allows the DNA to function and replicate without mutation. Thus, it insures the transfer of pure information in a harmonized

**manner.** This hexagonal water is the transmission medium through which information is delivered from DNA to RNA via short bursts of photons (light). Others have termed this as bio-photon bursts, or bio-available photon interaction".

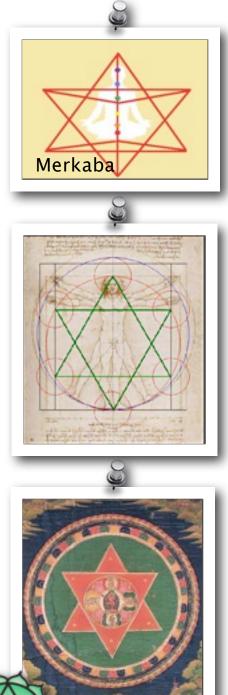
- Gerald Pollack

The hexagon shape is where life takes on its charge and gives life structure, function and order. These hexagonal patterns have **electro**magnetic and piezo**electrical** properties.

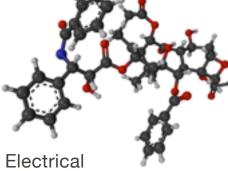
The hexagon shape is central to electrical structures that transmit the impulse of life.

THE HEXAGON IS THE LIGHT AND LIFE OF OUR BODIES.

The Merkaba was an esoteric symbol of the Egyptians that represents the light body. MER=LIght, KA=Spirit, BA=Body. It is also the throne or chariot mentioned in the Bible. It is also the Star of David in the Jewish tradition, and the Yantra of the Eastern.



Yantra



Electrical Wires

DNA

Star of David

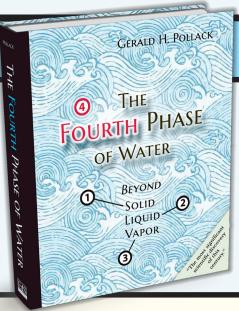
### SOURCE NEEDS A RE-SOURCE IN WHICH TO ANIMATE ITSELF, IT CELLS?

"In your cells are multiple batteries with plus and minus charges, separated... The question is, how are these batteries charged?

The charge comes from incident radiant energy; light, heat, ultraviolet. All of these absorbed energies separate the charge. The energy that's coming in from outside builds this charge separation and order. This potential energy fills your cells. I think this energy is critical to an understanding of how your cells work."

In a nutshell, the water in each of your cells achieves its ordered structure from energy obtained from the environment, typically in the form of electromagnetic radiation, including sunlight and infrared heat."

Gerald Pollack



"The Most significant scientific discovery of this century." -Mae-Wan Ho; Director, Institute of Science and Society, London

### The FOURTH PHASE OF WATER Beyond Solid, Liquid, and Vapor by Dr. Gerald H. Pollack

• Wet sand vs. dry sand. When stepping into dry sand, you sink deeply, but you hardly sink into the wet sand near the water's edge. Wet sand is so firm that you can use it for building sturdy castles or large sand sculptures. The water evidently serves as an adhesive. But how exactly does water glue those sand particles together? (The answer is revealed in Chapter 8.)

• Ocean waves. Waves ordinarily dissipate after traveling a relatively short distance. However, tsunami waves can circumnavigate the Earth several times before finally petering out. Why do they persist for such immense distances? (See Chapter 16.)

• **Gelatin desserts.** Gelatin desserts are mostly water. With all that water inside, you'd expect a lot of leakage. However, none occurs. Even from gels that are as much as 99.95% water, we see no dribbling. Why doesn't all that water leak out? (Read Chapters 4 and 11.)

• **Diapers.** Similar to gels, diapers can hold lots of water: more than 50 times their weight of urine and 800 times their weight of pure water. How can they hold so much water? (Look at Chapter 11.)

• **Slipperiness of ice.** Solid materials don't usually slide past one another so easily: think of your shoes planted on a hilly street. Friction keeps you from sliding. If the hill is icy, however, then you must exercise great care to keep from falling on your face. Why does ice behave so differently from most solids? (Chapter 12 explains.)

• **Swelling.** Your friend breaks her ankle during a tennis match. Her ankle swells to twice its normal size within a couple of minutes. Why does water rush so quickly into the wound? (Chapter 11 offers an answer.)

• Freezing warm water. A precocious middle-school student once observed something odd in his cooking class. From a powdered ice cream mix he could produce his frozen

treat faster by adding warm water instead of cold water. This paradoxical observation has become famous. How is it that warm water can freeze more rapidly than cold water? (See Chapter 17.)

• **Rising water.** Leaves are thirsty. In order to replace the water lost through evaporation in plants and trees, water flows upward from the roots through narrow columns. The commonly offered explanation asserts that the tops of the columns exert an upward drawing force on the water suspended beneath. In 100-meter-tall redwood trees, however, this is problematic: the weight of the water amassed in each capillary would suffice to break the column. Once broken, a column can no longer draw water from the roots. How does nature avert this debacle? (Check out Chapter 15.)

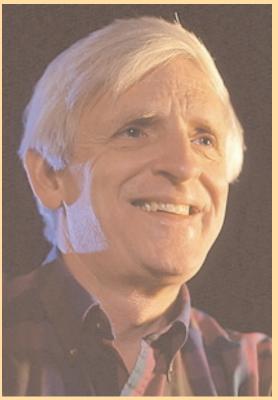
...and much, much more

to preview several chapters, or to purchase, please visit *www.ebnerandsons.com* 

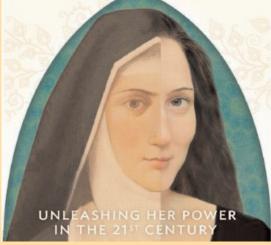


presents

## MATTHEW FOX







PUBLIC TALK Friday, April 26 7-9pm \$30/\$40 at door

WORKSHOP April 26 Talk and Sat, April 27 9am-4pm CAN. MEMORIAL CENTRE FOR PEACE \$225

(must be purchased in advance on Eventbrite)

### Hildegard and the Mystics

Engage with the challenging, delightful and profound teachings of the Christian mystic prophets as they illuminate our heart-centred path of transformation. Embrace what Western religion has ignored and discover the wisdom and power of personal and societal transformation. Awaken your inner mystic through chanting, circle dancing, Cosmic Christ practices and more.

*"Matthew Fox might well be the most creative, the most comprehensive, surely the most challenging religious-spiritual teacher in America."* 

— Thomas Berry, author of *The Great Work* 

**MATTHEW FOX** is an activist, theologian and Episcopal priest. He has written 30 books which have been translated into 43 languages and have received numerous awards. Among them are *Original Blessing*, *The Coming of the Cosmic Christ*, and *A Spirituality Named Compassion*.

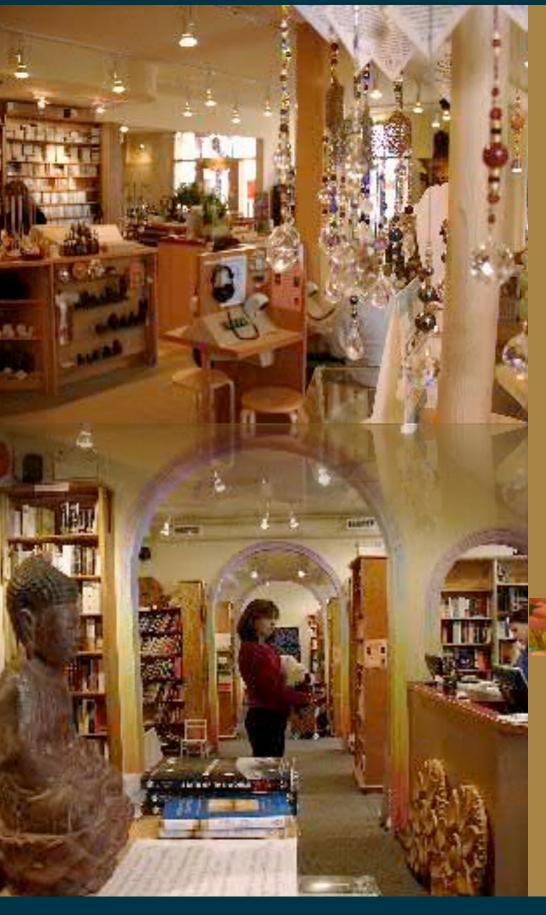


Banyen Books & Sound 36

3608 West 4th Avenue



### BANYEN BOOKS & SOUND



Since 1970, Banyen Books & Sound has grown to become an abundant oasis - one of the most comprehensive selections in North America focusing on Spiritual Traditions, Healing Arts, and Earth Wisdom. Banyen store offers over 26,000 titles: books, music, DVDs, audio teachings, and oracles. Banyen also has a wide spectrum of gifts, meditation and yoga supplies, musical instruments, crystals, statues, incenses and smudges, and much, much more.

**Tickets: (604) 737-8858** I-800-663-8442/(604) 732-7912 3608 West 4th Ave,Vancouver BC http://www.banyen.com

Events Click Here

## Gives Birth to Light

## JOHN STUART REID

Detail of the Shabako Stone/ British Museum

Creation stories from many cultures teach that sound created the Cosmos in the form of the spoken word from a divine source. This concept originated, as with so many aspects of our present day culture, with the ancient Egyptians. In 1805 an ancestor of Princess Diana, the second Earl Spencer, gifted an ancient Egyptian stone to the British Museum where it remains to this day. How the stone came to be in the possession of Earl Spencer remains a mystery, but the 'Shabako Stone' commissioned by pharaoh Shabako, is considered by some experts to be the most important Egyptian text, with the notable exception of the 'Rosetta Stone,' from which all hieroglyphs were translated.

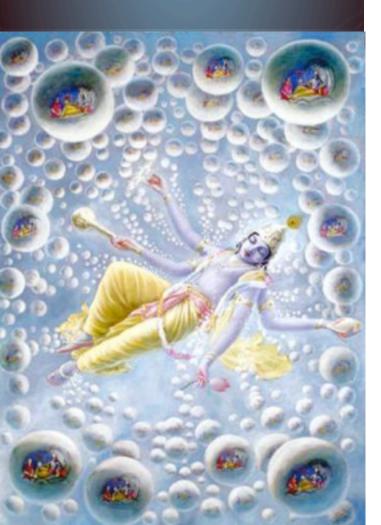
It tells of the god Ptah, the cosmic architect who created light and the entire Cosmos simply by uttering words. Lines 56-57 of the text state:

"Lo, every word of god into being camethrough the thoughts mind the and the of command on the tongue.



Pharaoh Shaboko, British Museum

IT IS ASTONISHING TO THINK THAT THE CONCEPT OF SOUND AS A MAJOR FACTOR IN CREATION WAS WIDE SPREAD IN THE ANCIENT WORLD, AND NOT ONLY IN EGYPT; THE INDIAN VEDIC CULTURE HELD SIMILAR BELIEFS AND THE GREEK 'LOGOS' HEAVILY INFLUENCED EARLY CHRISTIAN THINKING ON THIS SUBJECT. IN FACT, MANY EARLY TEXTS PREDICT, IN ESSENCE, MUCH OF WHAT PRESENT-DAY SCIENCE HAS DISCOVERED ABOUT THE BIRTH OF THE COSMOS.



The prevailing scientific view is that before the birth of stars or galaxies, even before time began, there was no light and no sound and all the matter that comprises the Cosmos existed in a singularity. Then, around 13.7 billion years ago, an event occurred known as the BIG BANG and all the matter contained in the singularity was launched into the void. A tiny fraction of a second later, collisions between the ejecta created photons light—and the early Cosmos was born. (This is of course a greatly simplified version of the Creation event; for more details you may wish to refer to the Wikipedia page on this subject: <u>http://</u> en.wikipedia.org/wiki/Big Bang)

How can we be certain that sound came before the light? Because light can only be created when atoms interact with each other—that is, when they collide and such collisions, as we will see in more detail later, may be defined as 'sound'. Thus, there can be no light without sound.

The Big Bang Creation event is based partly on observations showing that all galaxies appear to be moving away from us and from each other, inferring there was a time when all the matter was in one place. In his book The Universe in a Nutshell, Steven Hawking tells us, " ...if the galaxies are moving apart now, ... they must have been closer in the past. About 15 billion years ago, they would all have been on top of each other and the density would have been ... a trillion trillion trillion trillion trillion trillion tons per square inch.

Fred Hoyle first coined the term the 'Big Bang' in a radio broadcast in 1949.

...LIGHT CAN ONLY BE CREATED WHEN ATOMS INTERACT WITH EACH OTHER...

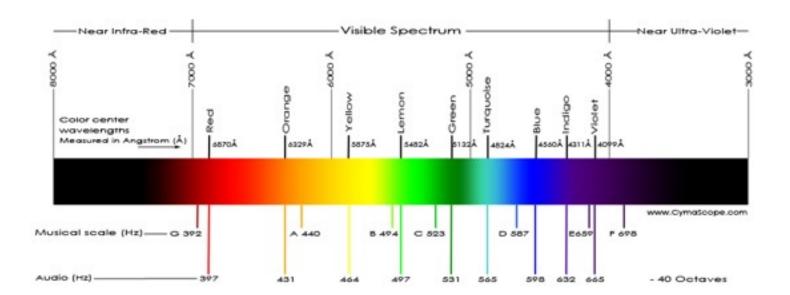
BUT WHAT IF THE SOUNDS WE MAKE WERE TRANSFORMED INTO LIGHT? THE LIGHT WOULD ZIP THROUGH THE ATMOSPHERE AND CARRY OUR WORDS TO THE STARS.

LIGHT & COLOR

Am I just waxing poetic or is this some new high-tech science or maybe even science fiction? Actually it is theoretically possible, although what I'm about to describe is an aspect of sound and light not commonly known. And you don't need fancy equipment to convert sound to light; your voice is all you need. The basic principles are straightforward and perhaps by the end of this article you will understand the special relationship between sound and light and how your songs, at least hypothetically, reach the stars and how star 'song' has become a powerful new tool for science.

While scientists agree that sound and light are different phenomena, much confusion exists among the general public concerning the true relationship between these two forms of energy. For example, online articles often appear in which a particular sound frequency is multiplied by forty octaves in an

attempt to identify its equivalent light 'color.' In the chart below, colors of light are shown alongside their corresponding Ångström numbers (named after the Swedish physicist Anders Jonas Ångström) and these are compared with frequencies of sound given in Hertz. Without going into the finer points about what these different units mean, look, for example, at 392 Hertz, the musical note 'G,' shown as a deep red color. At first glance this artistic interpretation of sound as color appears valid until we realize that sound and light are in fact totally different forms of energy. It's rather like comparing apples with oranges; they are plainly different. In reality this attempt at comparing light colors with sound frequencies is fundamentally flawed. However, there is indeed an intriguing, almost magical, relationship between sound and light, although not in the way that is commonly believed.



#### The Nature of Sound

Let us begin by discussing the nature of sound. Sound in air is the transfer of periodic vibrations between adjacent colliding atoms or molecules. That might sound rather grand but basically it simply means that when atomic particles bump into their neighbors they pass on their vibrations. (Remember that air is a mixture of gases in which oxygen and nitrogen consist of individual atoms while carbon dioxide

consists of molecules.) This transfer of vibrations between any two adjacent atoms or molecules, is known as 'sound.'

The energy in a sound event, for example a handclap, expands away from the site of the collisions—in this case the impact of skin molecules on skin molecules—equally in all directions, as a bubble. This sound bubble naturally expands at the speed of

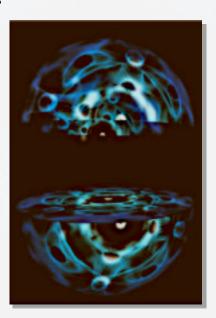
sound, which is around 768 miles an hour at 20 degrees C, and its outer 'surface' is in a state of radial pulsation or oscillation, meaning that it is expanding and contracting. The bubble's pulsations are the same as those created by the impact of the two hands as they clap together. In fact, the pulsations of the bubble **are** the sound. At this point you might be thinking "But what about sound waves?" Actually, the model of 'sound waves' is incomplete as well as a misnomer because it refers to the graphical representation of the mathematical law of the sound energy. While the term 'sound waves' is correct in terms of its graphical representation it is not how sound actually propagates or travels.

The concept of sound as a wave is simply a label used to describe the fact that sound bubbles pulsate in and out rhythmically. It is this pulsation of the bubble's outer surface that is typically illustrated as a wave-like graph. Put differently, when teachers and scientists describe sound as a wave they are referring to its rhythmic pulsation depicted

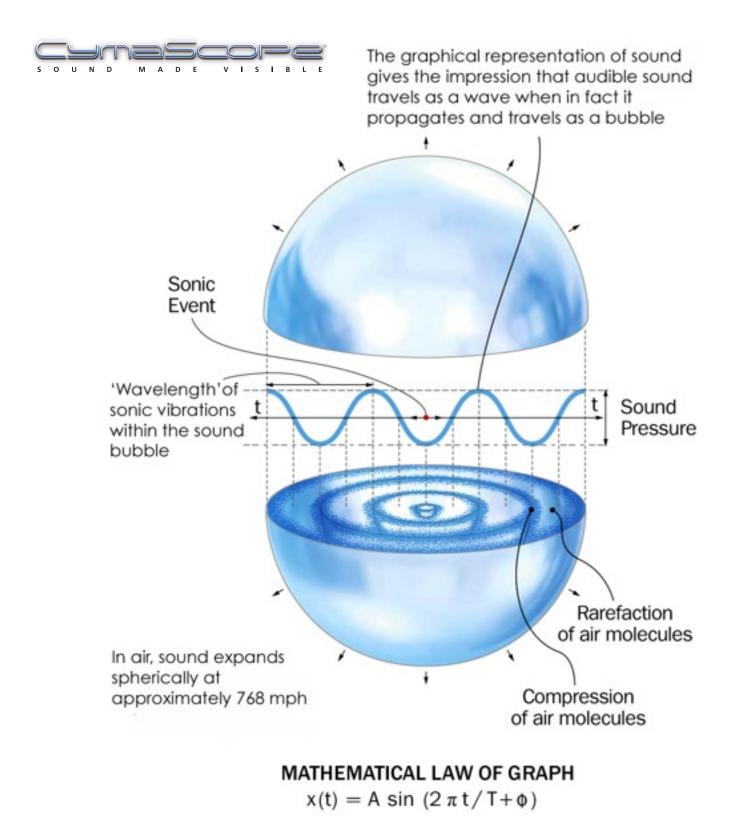
> graphically, not its actual shape in space. The result of this confusion is that most people incorrectly visualize sounds wiggling their way through the air rather than visualizing beautiful, shimmering sound bubbles.

In the illustration of the sound bubble it has been halved to permit its internal structure to be seen. The sound event that created the bubble is in the center. All sounds contain areas

of high pressure and low pressure, called compressions and rarefactions. The illustration shows these areas as dense blue hemispheres for high pressure and pale blue hemispheres for low pressure. Study the drawing closely and you will see dotted lines rising out of the bottom half of the bubble and connecting with a wave graph in the middle. This illustrates clearly where the term 'sound waves' comes from: the wavelike graph of sound is a mathematical representation of an actual sound bubble.



### AUDIBLE SOUND



### HOLOGRAPHIC SOUND PRINCIPLES

To build a deeper foundation of understanding, when sound travels through air every atom or molecule in the path of the expanding sound bubble is involved in the process of passing on the sound vibrations, rather like the game where dominos are set up in a long row and each domino bumps



into its nearest neighbor, and sets off a chain reaction of movement. In air, the vibrations that originate with the atoms and molecules in direct contact with the sound source pass on their vibrations to

their nearest neighbors and the chain reaction begins, spreading out as a bubble of sound.

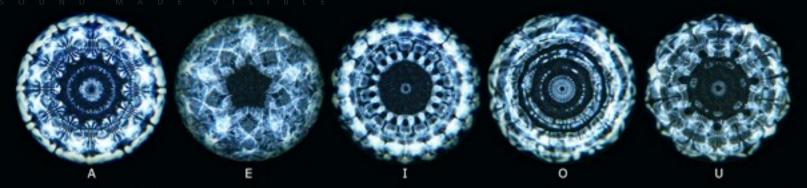
As an example, if a sound source produces a single frequency tone (for example when you make an 'oo' vowel sound with your voice) the periodic motion of every atom and molecule in the sound bubble will be of that same single periodicity and that single vibration will be passed on with each collision that occurs. On the other hand, if the sound is complex, with a multiplicity of frequencies of vibration, (for example if you make an 'ee' vowel sound, which is quite complex and rich in harmonics) the atoms and molecules will each carry this complex array of periodicities. To better visualize how a single atom can carry such complex periodic motions, imagine holding an apple and moving it slowly back and forth. (Let's say that the apple represents an atom in the air surrounding your larynx). Next imagine quickly wobbling the apple as it moves slowly back and forth. The apple/atom is now vibrating in two different ways simultaneously. Now imagine that same principle extended until the apple/atom is moving in a hundred different ways simultaneously. (Not easy to imagine, but I think the point is made). This is how atoms and molecules carry all the vibrations and uniqueness of a voice, or of any sound. And when an atom bumps into its nearest neighbor all of those different vibrations are transferred to the neighboring atoms.

The human voice, whether in speech or singing, is a good example of a complex sound source that contains many frequencies. What begins in the larynx as a small high pressure (fairly monotone) spherical pearl of sound energy, rapidly expands into the mouth where complex nuances are added by the tongue and lips, adding to the complexity of the vibrations and forming a given word.

## SOUND VIBRATION

http://www.cymascope.com/mandala.html

Shape of Vowels



Female Human Vowel Sounds

1º

www.cymascope.com

The word began with a thought, but now that thought has been transcribed to a sound bubble that emerges from the mouth and nose. Its outer edge shimmers due to every atom and molecule vibrating in unison. If you have a cold and your nose is blocked, the bubble emerges with a different tonal quality and the character of your voice will be modified accordingly. But either way, the data in the bubble is, effectively, an amplified thought.

How many atomic particles are needed to represent your unique voice? Amazingly the answer is 'one'. As mentioned above, a single atom can vibrate with all the complex vibrations that make your voice unique to you. Therefore, sound can be said to exhibit holographic principles because every atomic particle in a sound bubble contains all the vibrational data of the sound source. One mathematical definition o f 'holographic' (proposed by Andrew Zimmerman Jones) is that the total information contained in a volume of space corresponds to an equal amount of information contained on the boundary of that space. This definition precisely describes the sonic data within a sound bubble and at all points on its periphery; therefore, sound can be said to embody holographic principles.

In the illustration (previous page) a single bubble is seen emerging from the woman's mouth and nose. In reality this primary sound bubble would diffract backwards within a millisecond of its creation and the sound bubble would totally surround the woman's head; but for the sake of clarity only the primary bubble is shown. The bubble's surface pattern depicts the harmonic content (the timbre or tonal quality) of her voice.

Having summarized the nature of sound let us now explore the phenomenon of light in order to understand the special relationship between sound and light, which will lead to understanding how your songs, hypothetically, reach the stars and how star 'song' reaches the earth.

#### THE NATURE OF LIGHT



Visible light is electromagnetism of a particular frequency or, to be more accurate, a range of frequencies. The chart at the end of the Introduction section of this article illustrates this point very well. Since light frequencies are such big numbers it is more convenient to express them in Ångströms, which is a measure of the distance moved by light as it pulsates and is commonly referred to as its 'wave length.' However, in common with sound, light usually propagates as a bubble so the term 'wave length' can be misleading, unless we are cognizant of the spatial reality of light as a bubble of electromagnetic energy. Although the precise nature of electromagnetism is unknown to science, in essence it is magnetism that is vibrating (although no one knows what magnetism is). Light is created when static magnetism begins to vibrate sufficiently fast, or expressed differently, when static magnetism becomes 'modulated magnetism.' Every atom is surrounded by a magnetic shell-a magnetic force fieldand when this force field collides with the force field around another atom two important things happen: first, there is a transfer of the periodic motions between the atoms-earlier defined as sound. The second, almost magical, thing that happens is that light is created. In fact, when collisions occur between atoms or molecules there must be a release of light, generally known as 'electromagnetic radiation'. So, in a nutshell, light is created as atoms collide, but unlike sound, which needs a medium to travel in, the light radiates away from the site of the collisions without needing a medium; that is, light can travel through the vacuum of space.

The word began with a thought...

Brain Waves



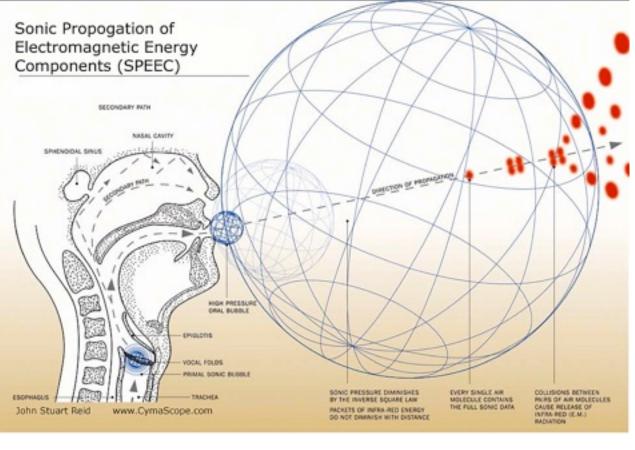
The reason that light vibrates at a certain frequency, or rate, is because the colliding atoms that sparked it into existence were vibrating at that same rate. Light vibrates with a smooth, rhythmic motion because atoms vibrate in the same way. Vibrating colliding atoms create the vibration of electromagnetism we call light/heat and launch it into space. In other words, when atoms bump against each other, the light energy created follows this same, smooth, atomic vibration. This direct relationship between the vibrational frequency of light and the vibrational frequency of the atoms that created it, is a simple and profound truth, but one that is not commonly known.

The frequency of light created by atoms as they bump into each other is a function of both the inherent energy states of the atoms or molecules (how fast they are vibrating individually) and the velocity at which they collide into each other. Light created by atomic collisions in which the energy states and velocities are too low to create visible light will create infrared light. At even lower energy states and velocities, for instance with a gentle caress of the skin, hypothetically, microwave radio frequencies will be created.

This could be why caresses can feel like electricity: such gentle touches may spark low level microwaves into existence. On the other hand, when the energy states and velocities in atomic collisions are extremely high it is welltested theory that X-ray and Gamma-ray radiation is created.

The spherical nature of light/heat is the result of multiple collisions between vibrating atoms, illustrated graphically below. If we think of atoms colliding like billiard balls, but scattering in three dimensions simultaneously, the light created by these multiple collisions radiates away equally in all directions.

THE ELECTROMAGNETIC BUBBLE Sound Gives Birth to Light RESULTING FROM THE MOLTIPLE COLLISIONS EXPANDS AT Image credit: John Stuart Reid & Freddy Silva INS. BOD WILES PER SEC. COLLISION OF FAST-NOVING MOLECOLE CAUSES DIFFRACTIVE REACTIONS, BUT NORE ATOMS AND MOLEGUILES MOVE IN THE DIRECTION OF THE CAURCY. (THE DIRECTION OF PROPAGATION). SAUND REBRIE CEPANDS. DIFFRACTIVE REACTIONS TAKE AT APPROX, THE MPR IN AIR. NORE TIME TO OCCUR RESOLTING IN A SLIGHTLY OVER SOUND BUBBLE. www.CymaScope.com



of your right hand. The result is heat/infrared light. A similar phenomenon occurs every time you speak: trillions of atomic collisions not only carry your words away through the air, they also create a

### SONIC PROPAGATION OF ELECTROMAGNETIC ENERGY COMPONENTS (SPEEC)

We are now ready to provide the answer to the question, how star 'songs' reach the earth, and our songs, hypothetically, reach the stars. 'Sonic Propagation of Electromagnetic Energy Components' is a bit of a mouthful but its basic principle is simple. As mentioned earlier, sonic bubbles expand at approximately 768 miles an hour. Each collision within the sound bubble creates friction between the magnetic shells surrounding the atomic particles, which create heat, which is another name for infrared electromagnetism, otherwise known as light.

Try this simple experiment: Rub your hands vigorously together and then place them over your closed eyes. You will feel warmth. The molecules that form the skin of your left hand bumped into the molecules that form the skin tiny amount of heat. The heat produced by your voice, though miniscule, fluctuates in sympathy with the sound of your words. This simple mechanism, hypothetically, transcribes your words into modulated infrared light that rushes away at the amazing speed of 186,000 miles per second.

While the energy in your voice bubble falls off rapidly with distance, it is not the case for the infrared bubble created by your voice. The infrared energy created by the sound collisions of your voice propagates independently of air (remember that electromagnetism does not need a medium to travel in) and heat is not significantly attenuated by air particles. The infrared bubble should travel relatively unimpeded through the atmosphere to outer space, where theory tells us it will travel forever unless it encounters some dense matter. So, hypothetically your songs should, one day, reach the stars.



In the Buddhist tradition when the morning bell is sounded in the temple, the monks vocalize their prayer, thus, they believe, transmitting it with the sound of the bell through the entire Cosmos. They view the bell sound as the carrier for their chanted prayer.

What the Buddhists have known intuitively for centuries, that the sound of the bell carries their prayers across the Cosmos, now has a possible scientific basis. But the prayers must be vocalized to travel through space. Mental prayers cannot accomplish this same effect.

Obviously, the electromagnetic energy created by a single voice is very weak but the more people who sing or chant, the greater the intensity of infrared energy becomes. In the image of the thousands of monks in Thailand chant in unison, believing that their numbers will enhance the power of their prayer. The SPEEC principle predicts that they are correct.

#### If we can sing to the stars shouldn't the stars be able to sing to us?

The stars do indeed bathe the earth in their 'song'. The same principle that transcribes our vocalized sounds to modulated infrared light (colliding atoms that create heat and carry sonic modulations) is also occurring in stars, and the stars are radiating their sounds across the Cosmos in both the infrared and visible light spectrums. A branch of astronomy called

asteroseismology is one in which scientists 'listen in' to the transcribed sounds of stars. Sounds created by stars can provide important data regarding the atomic processes at work in the heart of stars to assist scientists to learn more about our The star 'HR 3831-A' has an Cosmos. interesting sonic signature and was discovered by Professor Don Kurtz of Lancaster University, UK. In collaboration with Professor Kurtz our UK laboratory used an instrument called a CymaScope, which makes sound visible, to allow us to see the geometry within the star's song, as shown below. This is the first ever sound of a star made visible using this method.

> Image credit: Shawn W. 10,000 Buddhist monks praying for a better world

### UNI-VERSE SOUND TO LIGHT

### SOUNDS OF STARS

The sound of star HR 3831-A made visible - Image redit: John Stuart Reid

### Smithsonian Star Station

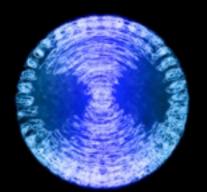
Listen Here to the Sound of the Stars



RR Lyrae



Chi Hydrae



PG 1159+035

Sun

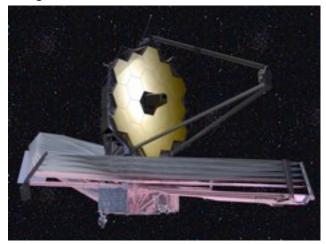
But there is an even more intriguing possibility for the future. Recent advancement in telescope design has resulted in the discovery of many so-called 'exoplanets;' worlds in other solar systems that are potential candidates for hosting extra-terrestrial life. Currently, the SETI project (the Search for Extra Terrestrial Intelligence) is searching the skies in the radio spectrum, hoping that ET will have advanced to the stage where they are using radio transmissions in their communications. But what if, instead of listening to radio transmissions from space we were to listen with a super-sensitive infrared telescope? If an ocean existed on an exoplanet we might be able to hear the sound of waves crashing on those far-distant shores. And if that world was home to even pre-technological intelligent life, we might just be able to hear them singing from their mountaintops with a sufficiently powerful infrared telescope.

#### JAMES WEBB SPACE TELESCOPE

This hope for the future is about to become one step closer to reality because the James Webb Space Telsecope (JWST), due for launch in 2018, is designed to monitor the heavens primarily in the infrared spectrum and with astonishing sensitivity. A joint project of NASA, the European Space Agency and the Canadian Space Agency, the JWST's 21.3-foot diameter (6.5 metres) mirror will be shaded from the sun's heat by a sunshield the size of a tennis court. Most importantly for this article's main theme: Sound Gives Birth to Light, one of the JWST's science themes is: Planetary Systems and the Origins of Life. Perhaps the JWST or some even more sensitive instrument of the future, may one day listen in to extraterrestrial life, not by a signal that was deliberately

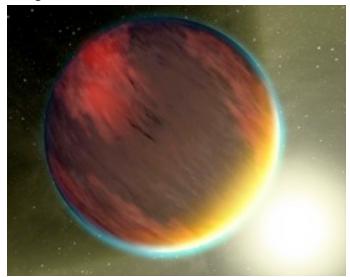
transmitted into space but one born of sounds that created infrared light.

Artist's impression of The James Webb Space Telescope Image credit: NASA/ JPL



Fanciful as this notion may be, transcribing sound to light is a kind of magic that is happening around us every day. Yet we remain blissfully unaware that our words and chants are rushing into space as modulated infrared light. Maybe one day, the very words you utter today will be monitored and heard by nonhuman ears in a part of the galaxy far, far away.

Artist's impression of an Exoplanet Image credit: NASA/ JPL





#### John Stuart Reid

John Stuart Reid is an English acoustics engineer, scientist and inventor. He has studied the world of sound for over 30 years and speaks extensively on his research findings to audiences throughout the United States and the United Kingdom.

Co-inventor of the CymaScope, John's work is inspired by acoustic pioneers, Ernst Chladni, Mary D. Waller and Hans Jenny and has taken their findings to a new level. His primary interests lie in investigating sound as a formative force and discovering why sound heals.

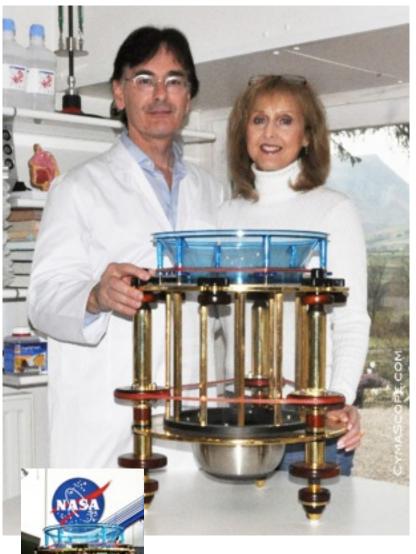


The CymaScope has applications in almost every branch of science simply because vibration underpins all matter. The ability to see

such vibrations permits a depth of study previously unavailable to scientists, engineers and researchers. Readers will have seen our list of research topics covering subject areas from Astrophysics to Zoology. Just as great advances in medical science have come about as the result of the microscope, and huge strides have been made in understanding the Universe with the



http://www.cymascope.com/gallery.html



John Stuart Reid & Annaliese Reid

telescope, the CymaScope instrument holds enormous potential to reveal the hidden realm

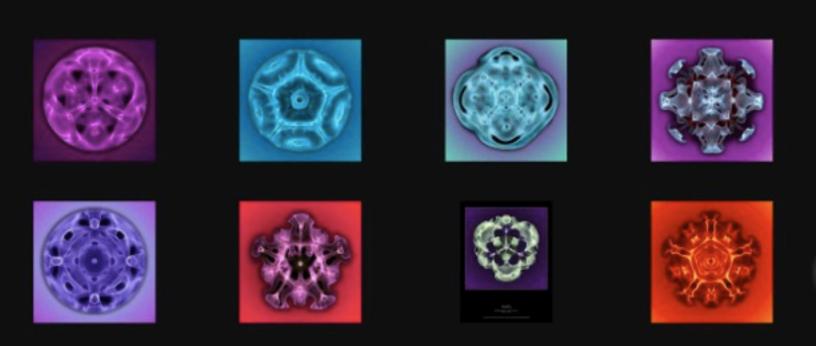
of sound and vibration. Our team have recently made a wonderful breakthrough in the field of dolphin language research, to be announced soon in our Oceanography section. However, as with all scientific instruments it is vital that the relevant maths is developed, enabling predictions to be made and dynamic systems to be modeled.

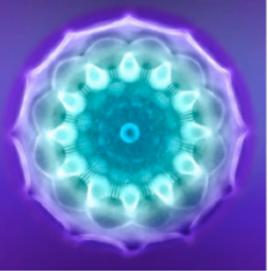
### THE MEREON MATRIX

The New Oxford American Dictionary defines magic as "the power to influence the course of events by mysterious or supernatural forces." In the case of cymatics there is more than a grain of truth in this definition; sonic interactions with water, both surface subsurface, remain largely mysterious.

However, a decade of work in exploring cymatics has led to a technology that has opened a new understand of this complex dynamic. This is presented in a book being published in the spring of 2013 by Elsevier [Oxford] titled "The Mereon Matrix; Unity, Perspective and Paradox". The Mereon Matrix is the name given to a geometric template whose vibrational dynamics may reside at the heart of all matter. The researchers who have invested more than 20-years on this project are excited about how the CymaScope has opened new windows into this knowledge domain and John Stuart Reid accepted an invitation to join the team. The research goals for 2013 involve further cymatic investigation and on-going application in the social sciences.

Readers of Science to Sage will want to look for this groundbreaking book and will appreciate browsing www.mereon.org













### All for the attractive price of \$99

(The image will be sized to 8.25 inch wide x 11.7 inch tall / 210 mm x 297 mm )

### Purchasing Your Harmonic Voice Mandala

Your voice is a holographic representation of all that you are, reflecting your own personal DNA.

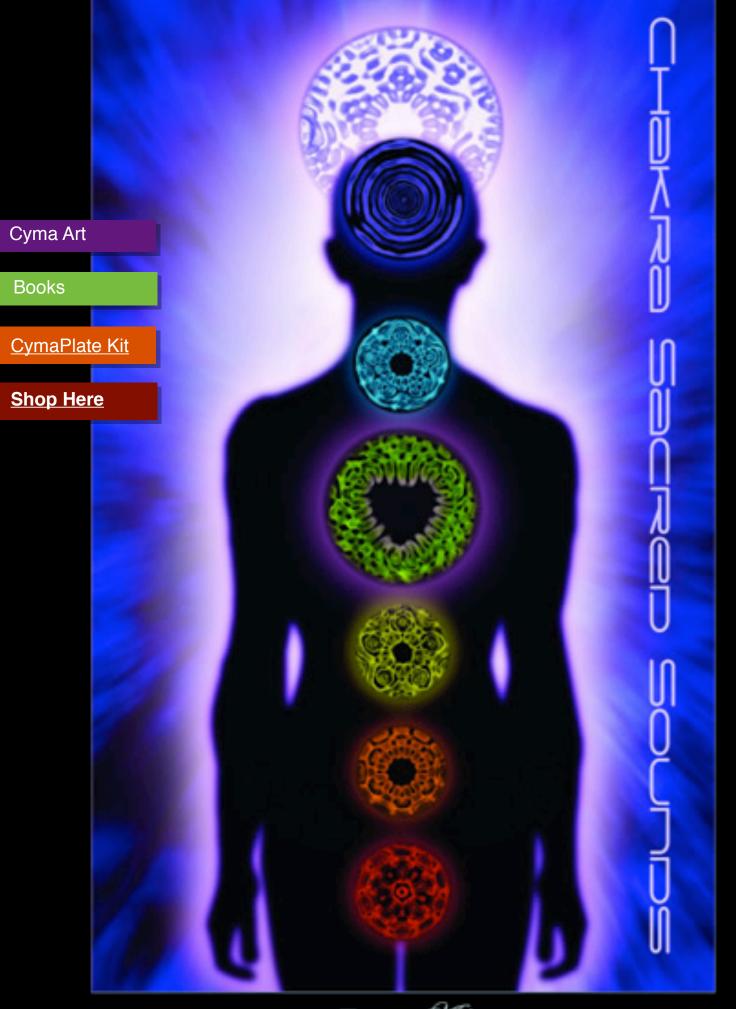
Using, the CymaScope - an instrument that makes sound visible - a moment of the beautiful geometry in your voice can be captured forever, to create your own, unique, Harmonic Voice Mandala.

Your body consists of a delicate tracery of energy, arranged layer upon layer, frequency upon frequency. Your vocal folds hold and emit these frequencies when you speak or sing, bathing your body and everyone in your vicinity with a template of your being. The CymaScope instrument has become the bridge that allows us to see and enjoy this beauty for the first time in history.

#### **Purchasing**



http://www.cymascope.com/



# KOROTKOV

### THE INFLUENCE OF CONSCIOUSNESS ON MATTER

THE QUESTION OF WHETHER THE HUMAN MIND CAN DIRECTLY, WITHOUT SOME INTERMEDIATE ELEMENTS, INFLUENCE THE WORLD AROUND US HAS TROUBLED MANKIND SINCE ANCIENT TIMES.

This effect is described in countless myths, legends and fairy tales of all peoples. In XX century this question arose on the new plane when the concept of the "observer" on whose conscious actions the outcome of subatomic events depended was introduced in quantum mechanics. Such interpretation is not universally accepted by physicists but it provides a theoretical foundation for study of these phenomena.

It is interesting to note that in techniques, especially in computer sciences, there is a common opinion that there are experimenters in whose hands any instrument works, and there are people negatively affecting the equipment. The first were Lord Kelvin, Thomas Edison and Nikola Tesla. The latter are usually theorists. A famous physicist George Gamow humorously describes the so-called "Pauli effect"<sub>7</sub>:

"It is well known that theoretical physicists are very awkward in handling experimental apparatus; and furthermore, the level of physicist - theorist can be assessed by his ability to break a delicate instrument byt simply touching it. According to this criterion, Wolfgang Pauli was an outstanding theoretician; the equipment broke, fell, blocked or burned as soon as he entered the lab".

Naturally, this is a joke, and such influence is not exerted by all theorists, but as with every joke, there is a large element of truth there.

### THE FIELD APPROACH

According to the field concept, the particles involved in any interaction (e.g., electromagnetic or gravitational), create at each point of the space around them a special state, a force field, which manifests itself in a force effect on other particles that are placed in some point of this space.



Indeed, according to the relativity, the propagation velocity of any interaction can not exceed the velocity of light in vacuum. Therefore, in the system of interacting particles the force acting at this moment of time on a particle of the system is not determined by the arrangement of other particles at the same moment, i.e., the change of the position of one particle has an effect on another particle not at once but after a certain period of time. Thus interaction of particles whose relative velocity is comparable with the velocity of light can be described only through the fields created by them.

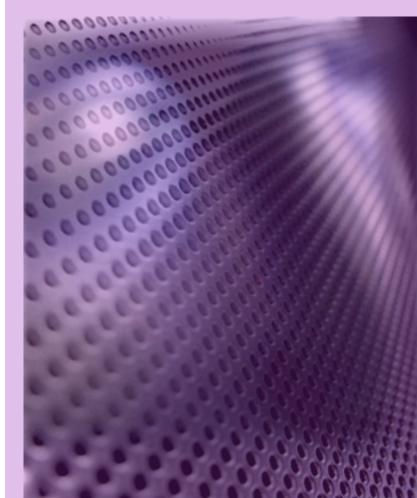
A group of French researchers led by R. Peoc'h 10 carried out a series of amazing experiences. They designed a robot that could move around without bumping into obstacles. If the robot is programmed to move at random it is moving chaotically, accidentally turning in different directions. In the room tracking sensors are placed, and after some time the trajectory of the robot uniformly fills in all available space. After that several cages with chickens are placed into the room, and the light is turned off. Then the robot is switched on, a small bulb being mounted on it. The robot starts to randomly move around the room, but after a while it turns out that the trajectory of its motion shifts toward the cages with the chickens! That is, the chicks, stretching toward the light, seem to attract the robot by the force of their emotions!

A similar phenomenon occurs when the robot is carried before the cage with the newly hatched chickens. They take it for mom, and are ready to obediently follow him. But when the freedom of movement is limited by the cage, they call the robot-mom with all the passion of their chicken heart. And the robot obeys! It responds and begins to walk close to chicken cages. Similar results have been repeatedly reproduced and described in detail in the scientific literature.

Thus, emotions affect even an electronic machine. The question is: what is the mechanism of this influence? I am afraid that at this stage we are very far from the answer. Now our task is to accumulate experimental data and let us not hurry with conclusions.

#### QUANTUM BREAKTHROUGH

As we know, the great Einstein until the end of his life could not accept quantum mechanics. It seemed to him a too formal simplification of reality. He lamented, "For fifty years I've been thinking about what is a light quantum, and can not understand it, and now at the universities every Tom thinks he knows it, but he is mistaken". Einstein could not accept the probabilistic principle being the basis of quantum mechanics. He did not want to lose the certainty and truth. "God does not play dice", he said. Einstein called quantum mechanics absurd. He believed that physicists simply do not yet know the values of some hidden variables, which would allow escaping the uncertainty. Niels Bohr who opposed him believed that the probabilistic nature of the predictions of quantum mechanics can not be fundamentally eliminated.



#### March 2013 Issue - See Electric Bodies

FROM CITY CELLS, TO FAMILY MEMBERS, WE ARE ALL LINKED BY LIQUID CRYSTALS

(transducers) which give the signals for the gate to open or to close, receptive or not receptive to an idea. This is the same method of how a computer chip works with key and keyboard, yet know you have to key in the data—it's not random.

The cell nucleus also acts like the hard drive that contains the software, body and mind. If you remove the floppy disk and install a new program, the computer still works, although it might need some downtime to adjust as it reloads! This also controls the central nervous system which is connected to our sensors - vision, hearing, taste, smell, pain, temperature and tactile sensations. - Karen Elkins

### A MEANING Making Machine

• WIRED FOR SURVIVAL

.......

- STIMULUS RESPONSE
- GATE OPEN OR CLOSED
- WIRED TO CONNECT
- STORAGE AND RETRIEVAL
- CREATED FROM A BINARY SYSTEM OF O'S AND 1'S
- DANGER OR PLEASURE
- FULLY AUTOMATED
- WHO IS PRESSING YOUR BUTTONS?

In particular, from the laws of quantum mechanics it follows that no two particles belonging to a single quantum system can have the same values of quantum numbers. Therefore, if an atom emits two photons, their polarization will always be different. Now imagine, Einstein said, that these photons are emitted in different directions, and one of the photons is affected, which changes its polarization. But photons belong to the same quantum system! Hence, the polarization of the second photon must immediately change, even if it is in another part of the Universe! But this is non-contact interaction, telepathy, teleportation! "But this is impossible in nature", said Einstein. In 1935 Einstein, together with Boris Podolsky and Nathan Rosen, wrote an article entitled "Can we consider the quantum-mechanical description of physical reality complete?" where he described a virtual experiment that was subsequently named Einstein-Podolsky-Rosen (EPR) paradox which for decades remained a mystery of quantum mechanics.

After the publication of this article Niels Bohr published a paper with the same name, in which he set forth several arguments for the probabilistic description of quantum mechanics and a certain analogy between the provisions of quantum mechanics and Einstein's general theory of relativity. Thus Bohr-Einstein debate about the physical meaning of the wave function was born.

In 1951 D. Bohm considered the possibility of carrying out an experiment (technically not yet feasible at that time), the so-called optical version of the EPR experiment that could resolve the dispute of Einstein-Bohr.

Much later, in the 60-ies, John Bell pondered over the EPR paradox. He figured out how to put an end to this endless argument of physicists initiated by Bohr and Einstein. Based on the arguments of the EPR, he formalized this argument as an inequality, which is called Bell's theorem. After that he only needed to carry out the experiment. If the experiment of Bell's inequality was confirmed, Einstein was right, if not, it was Bohr. Technically, such an experiment in the 60-ies was not feasible. But at least he knew exactly what to test, what he would obtain by this check and that this check was possible in principle.

In 1982 the scientific world was excited by the report on experimental confirmation of the EPR effect. The research team led by Alain Aspect at the University in Paris presented an experiment that might prove to be one of the most significant in XX century. A. Aspect and his team discovered that under certain conditions the elementary particles, such as electrons, are able to instantaneously communicate with each other regardless of the distance between them. It does not matter whether there are 10 feet between them or 10 billion miles. Somehow each particle always knows what the other one is doing. The problem of this discovery is that it violates the postulate of Einstein about the limiting velocity of propagation of interaction equal to the velocity of light. Since a travel faster than the light velocity is equivalent to overcoming the time barrier, this daunting prospect made some physicists try to explain the experiments of Aspect by complicated detours.

The result caused no doubt because it was confirmed by the scientists from three different centers: Anton Zeilinger from Austrian Center in Innsbruck, Francesco Martini from Rome and Jeff Kimble from California. Technically it is a super-complex experiment. The duration of each light pulse was equal to a second in the degree of minus 15: 10.15! It is impossible to imagine with one's mind. However it turned out that in every fourth case the properties of the photons from the source A coincided with the properties of the photons from the source B. This is teleportation with a probability of 25%, which was predicted in advance by the theory of EPR. In 1999 teleportation of not individual photons but of the whole beam of photons, i.e. a light beam was successfully performed.

"The most important outcome of these experiments is that they made it possible to see the amazing properties of quantum mechanics and to understand that nature follows its predictions, even when these predictions seem to be mad".

These experiments put an end to the endless disputes. Let me quote another famous physicist **Paul Davies**:

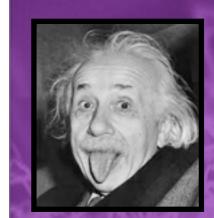
"The results left no doubt: Einstein

**Was Wrong.** Quantum uncertainty can not be avoided. It is an integral feature of the quantum world and can not be reduced to something else. The naive view of the reality of particles with well-defined properties in the absence of observations failed.

A. Aspect hammered the final nail in the coffin of physics based on common sense".

These costly experiments are not just entertainments of highbrow scholars. The possibility of ultra-fast data transmission means a new era in the information technologies which already have their name: quantum computing. The prospects lie in the transition from electronic computers and data transmission systems to the photonic ones. Light beams have been already firmly established in the practice of data transmission through fiber optic cables, and it provided a significant increase in the capacity of communication channels. The next phase is the transition to photonic devices in the computer chips, and, finally to the use of quantum states as bits of information. This will be the next phase of technological revolution, a new leap over the coil of the information spiral.

But what about teleportation of material objects, an instantaneous transfer of bodies to another point in space, the cherished dream of all the magi? In principle, there are no restrictions to the implementation of these processes from the viewpoint of modern physics. Professor Jeff Kimble of Californian Technological University said that quantum teleportation of material objects is not far off. True, it is better not to mention biological objects at this point.



Excerpts from Various Chapters of "The Energy of Consciousness" By Konstantin Kovotkov

#### <complex-block>Lear Description Description

Konstantin Korotkov has published over 200 papers in leading journals on physics and biology, and he holds 17 patents on biophysics inventions. <u>Prof. Korotkov</u> has led a research career for over 30 years, combining rigorous scientific method with an insatiable curiosity about things of the spirit and the soul with deep respect for all life. He is also a scholar in philosophy and a serious mountaineer of 25 years experience. He has given lectures, seminars and training sessions in 43 countries, presenting papers and workshops at more than 100 national and international conferences.

He is the author of 9 books; Most of them are translated to English, French, German, Italian and Spanish, including Light After Life: Experiments and Ideas on After-Death Changes of Kirlian Pictures, USA 1998. Aura and Consciousness – New Stage of Scientific Understanding, Russian Ministry of Culture, 1998. Human Energy Fields: Study with GDV Bioelectrography, USA 2002. Spiral Traverse, (USA?) 2006. An editor of the book: Measuring Energy Fields: State of the Art. GDV Bioelectrography series, USA 2004.

The <u>EPC/GDV technique</u> is accepted by Russian Ministry of Health as a Medical technology and certified in Europe. More than 1000 doctors, practitioners and researchers benefit from using this technology worldwide. More than 150 papers are published on GDV in (how many) different countries.

Korotkov's books available from Amazon.com www.backbonepublishing.com/books/otherbooks

> ELECTROPHOTONIC ANALYSIS IN MEDICINE - GDV BIOELECTROGRAPHY RESEARCH 2013



ctrophotonic analysis

Ekaterina Jakovleva, Konstantin Korotkov

## GDV LIGHT/LIFE READINGS

🗞 by Krishna

### Experience the light, life essence of you

Krishna Madappa is an shaman, Ayurvedic specialist, educator, essential oil clinician, researcher, and storyteller, based in Taos, New Mexico. His research is in engineering and bio-field sciences, he is totally immersed in scientific research and explorations of subtle energies and frontier sciences.

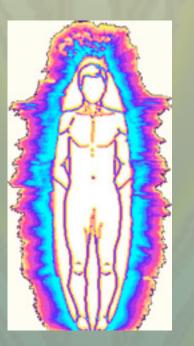
As a Holistic Consultant, Krishna is dedicated to awakening and heightening conscious wide awake

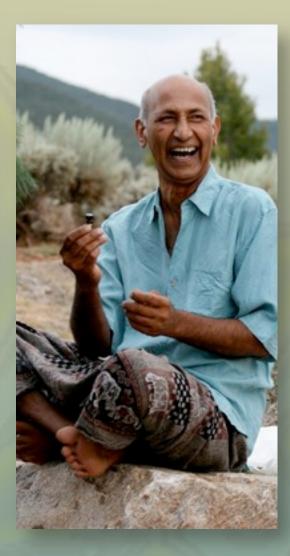
awareness in all through continued explorations on Human Energy Fields, essential oils, water, soils, sound and light.

Krishna travels globally conducting lectures, experiential learning intensives, and retreats along with small group and individual sessions, enriching and empowering the lives of all he meets.

#### **ABOUT the GDV**

The EPI/GDV (Electro Photon Imaging) system provides non-invasive, immediate evaluation of energy, stress and vitality. In each case, the EPI scan can provide a broad spectrum of suggestions towards integral and whole being wellness.



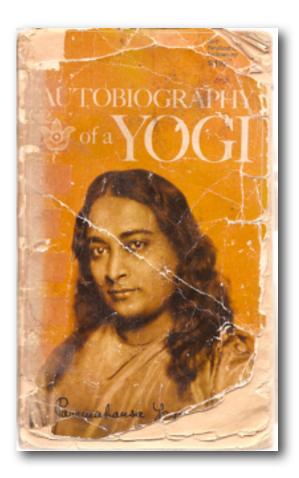


#### **Book a Private Reading**

Krishna Madappa krishna@gdvusa.org 575.770.3304 / Taos , New Mexico www.gdvusa.org



MATERIALIZE & **THE LAW OF MIRACLES** DEMATERIALIZE Masters who are able to materialize and dematerialize their bodies and other objects, and to move with the velocity of light, and to utilize the creative light rays in bringing into instant visibility any physical manifestation, have fulfilled the lawful condition: their mass is infinite.



**AUTOBIOGRAPHY** OF A YOGI Parauhausa Joganauda CHAPTER 30

The consciousness of a perfected yogi is effortlessly identified not with a narrow body but with the universal structure. Gravitation, whether the "force" of Newton or the Einsteinian "manifestation of inertia," is powerless to compel a master to exhibit the property of weight: the distinguishing gravitational condition of all material objects. He who knows himself as the omnipresent Spirit is subject no longer to the rigidities of a body in time and space. The imprisoning "rings-pass-not" have yielded to the solvent: I am He.

"Let there be light! And there was light." In the creation of the universe, God's first command brought into being the structural essential: light. On the beams of this immaterial medium occur all divine manifestations. Devotees of every age testify to the appearance of God as flame and light. "His eyes were as a flame of fire," St. John tells us, "... and his countenance was as the sun shineth in his strength."

"IF THEREFORE THINE EYE BE SINGLE, THY WHOLE BODY SHALL BE FULL OF LIGHT." Long

concentration on the liberating spiritual eye has enabled the yogi to destroy all delusions concerning matter and its gravitational weight; he sees the universe as the Lord created it: an essentially undifferentiated mass of light. A yogi who through perfect meditation has merged his consciousness with the Creator perceives the cosmical essence as light (vibrations of life energy); to him there is no difference between the light rays composing water and the light rays composing land. Free from matter-consciousness, free from the three dimensions of space and the fourth dimension of time, a master transfers his body of light with equal ease over or through the light rays of earth, water, fire, and air.

"If therefore thine eye be single, thy whole body shall be full of light." Long concentration on the liberating spiritual eye has enabled the yogi to destroy all delusions concerning matter and its gravitational weight; he sees the universe as the Lord created it: an essentially undifferentiated mass of light.

"Optical images," Dr. L. T. Troland of Harvard tells us, "are built up on the same principle as the ordinary 'halftone' engravings; that is, they are made up of minute dottings or stipplings far too small to be detected by the eye . . . . The sensitiveness of the retina is so great that a visual sensation can be produced by relatively few quanta of the right kind of light."

#### THE LAW OF MIRACLES IS OPERABLE BY ANY MAN WHO HAS REALIZED THAT THE ESSENCE OF CREATION IS LIGHT. A master is able to employ his

divine knowledge of light phenomena to project instantly into perceptible manifestation the ubiquitous light atoms. The actual form of the projection (whatever it be: a tree, a medicine, a human body) is determined by the yogi's wish and by his power of will and of visualization.

At night man enters the state of dreamconsciousness and escapes from the false egoistic limitations that daily hem him round. In sleep he has an ever recurrent demonstration of the omnipotence of his mind. Lo! in the dream appear his long-dead friends, the remotest continents, the resurrected scenes of his childhood.

That free and unconditioned consciousness, which all men briefly experience in certain of their dreams, is the permanent state of mind of a God-tuned master. Innocent of all personal motives, and employing the creative will bestowed on him by the Creator, a yogi rearranges the light atoms of the universe to satisfy any sincere prayer of a devotee.

"And God said, Let us make man in our image, after our likeness: and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth."

For this purpose were man and creation made: that he should rise up as master of maya, knowing his dominion over the cosmos.

In 1915, shortly after I had entered the Swami Order, I witnessed a strange vision. Through it I came to understand the relativity of human consciousness, and clearly perceived the unity of the Eternal Light behind the painful dualities of maya. The vision descended on me as I sat one morning in my little attic room in Father's Garpar Road home. For months the First World War had been raging in Europe; I had been reflecting sadly on the vast toll of death.

As I closed my eyes in meditation, my consciousness was suddenly transferred to the body of a captain in command of a battleship. The thunder of guns split the air as shots were exchanged between shore batteries and the ship's cannons. A huge shell hit the powder magazine and tore my ship asunder. I jumped into the water, together with the few sailors who had survived the explosion. Heart pounding, I reached the shore safely. But alas! a stray bullet ended its swift flight in my chest. I fell groaning to the ground. My whole body was paralyzed, yet I was aware of possessing it as one is conscious of a leg gone to sleep.

"At last the mysterious footstep of Death has caught up with me," I thought. With a final sigh, I was about to sink into unconsciousness when Io! I found myself seated in the lotus posture in my Garpar Road room.

Hysterical tears poured forth as I joyfully stroked and pinched my regained possession: a body free from a bullet hole in the breast. I rocked to and fro, inhaling and exhaling to assure myself that I was alive. Amidst these self-gratulations, again I found my consciousness transferred to the captain's dead body by the gory shore. Utter confusion of mind came upon me.

"Lord," I prayed, "am I dead or alive?"

A dazzling play of light filled the whole horizon. A soft rumbling vibration formed itself into words:

"What has life or death to do with light? In the image of My light I have made you. The relativities of life and death belong to the cosmic dream. Behold your dreamless being! Awake, My child, awake!"

As steps in man's awakening, the Lord inspires scientists to discover, at the right time and place, the secrets of His creation.

MANY MODERN DISCOVERIES HELP MAN TO APPREHEND THE COSMOS AS A VARIED EXPRESSION OF ONE POWER —LIGHT, GUIDED BY DIVINE INTELLIGENCE. The wonders of the motion picture, of radio, of television, of radar, of the photoelectric cell —the amazing "electric eye," of atomic energies, are all based on the electromagnetic phenomenon of light.

The motion-picture art can portray any miracle. From the impressive visual standpoint, no marvel is barred to trick photography. A man may be seen as a transparent astral body that is rising from his gross physical form, he can walk on the water, resurrect the dead, reverse the natural sequence of developments, and play havoc with time and space. The expert may assemble the photographic images as he pleases, achieving optical wonders similar to those that a true master produces with actual light rays.

Motion pictures, with their lifelike images, illustrate many truths concerning creation. The Cosmic Director has written His own plays and has summoned the tremendous casts for the pageant of the centuries. From the dark booth of eternity He sends His beams of light through the films of successive ages, and pictures are thrown on the backdrop of space.

Just as cinematic images appear to be real but are only combinations of light and shade, so is the universal variety a delusive seeming. The planetary spheres, with their countless forms of life, are naught but figures in a cosmic motion picture. Temporarily true to man's five sense perceptions, the transitory scenes are cast on the screen of human consciousness by the infinite creative beam.

A cinema audience may look up and see that all screen images are appearing through the instrumentality of one imageless beam of light. The colorful universal drama is similarly issuing from the single white light of a Cosmic Source. With inconceivable ingenuity God is staging "super-colossal" entertainment for His children, making them actors as well as audience in His planetary theater.



THE COLORFUL UNIVERSAL DRAMA IS SIMILARLY ISSUING FROM THE SINGLE WHITE LIGHT OF A COSMIC SOURCE.



One day I entered a cinema house to view a newsreel of the European battlefields. The First World War was still being waged in the West; the newsreel presented the carnage with such realism that I left the theater with a troubled heart.

"Lord," I prayed, "why dost Thou permit such suffering?"

To my intense surprise, an instant answer came in the form of a vision of the actual European battlefields. The scenes, filled with the dead and dying, far surpassed in ferocity any representation of the newsreel.

"Look intently!" A gentle Voice spoke to my inner consciousness. "You will see that these scenes now being enacted in France are nothing but a play of chiaroscuro. They are the cosmic motion picture, as real and as unreal as the theater newsreel you have just seen —a play within a play."

My heart was still not comforted. The Divine Voice went on: "CREATION IS LIGHT AND SHADOW BOTH, ELSE NO PICTURE IS POSSIBLE.



The good and evil of maya must ever alternate in supremacy. If joy were ceaseless here in this world, would man ever desire another? Without suffering, he scarcely cares to recall that he has forsaken his eternal home. Pain is a prod to remembrance. The way of escape is through wisdom.

The tragedy of death is unreal; those who shudder at it are like an ignorant actor who dies of fright on the stage when nothing more has been fired at him than a blank cartridge. My sons are children of light; they will not sleep forever in delusion."

Although I had read scriptural accounts of maya, they had not given me the deep insight that came with personal visions and with the accompanying words of consolation. One's values are profoundly changed when he is finally convinced that creation is only a vast motion picture; and that not in it, but beyond it, lies his own reality.

After I had finished writing this chapter, I sat on my bed in the lotus posture. My room was dimly lit by two shaded lamps. Lifting my gaze, I noticed that the ceiling was dotted with small mustard-colored lights, scintillating and quivering with a radium like luster. Myriads of penciled rays, like sheets of rain, gathered into a transparent shaft and poured silently upon me.

At once my physical body lost its grossness and became metamorphosed into astral texture. I felt a floating sensation as, barely touching the bed, the weightless body shifted slightly and alternately to left and right. I looked around the room; the furniture and walls were as usual, but the little mass of light had so multiplied that the ceiling was invisible. I was wonderstruck.

"This is the cosmic motion-picture mechanism." A Voice spoke as though from within the light. "Shedding its beam on the white screen of your bed sheets, it is producing the picture of your body. Behold, your form is nothing but light!"

I gazed at my arms and moved them back and forth, yet could not feel their weight. Ecstatic joy overwhelmed me. The cosmic stem of light, blossoming as my body, seemed a divine reproduction of the light beams that stream out of the projection booth in a cinema house and make manifest the pictures on the screen. For a long time I experienced this motion picture of my body in the faintly lit theater of my own bedroom. Though I have had many visions, none was ever more singular. As the illusion of a solid body was completely dissipated, and as my realization deepened that the essence of all objects is light, I looked up to the throbbing stream of lifetrons and spoke entreatingly.

"Divine Light, please withdraw this, my humble bodily picture, into Thyself; even as Elijah was drawn up to heaven in a chariot of flame."

This prayer was evidently startling; the beam disappeared. My body resumed its normal weight and sank on the bed; the swarm of dazzling ceiling lights flickered and vanished. My time to leave this earth had apparently not arrived.

"Besides," I thought philosophically, "Elijah might well be displeased at my presumption!"

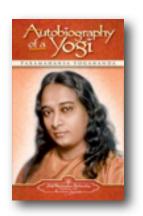


This selection is from Chapter 30 of Paramahansa Yogananda's *Autobiography of a Yogi* (copyright © Self-Realization Fellowship, Los Angeles, Calif. All rights reserved). For information on Kriya Yoga and the teachings of Paramahansa Yogananda, visit <u>www.yogananda-srf.org</u>.

#### About Paramahansa Yogananda and Self-Realization Fellowship

Regarded as the father of Yoga in the West, Paramahansa Yogananda was one of the first spiritual teachers from India to introduce Westerners to the practice of yoga meditation. Arriving in America in 1920, he established his society, Self-Realization Fellowship, that same year to disseminate his Kriya Yoga teachings. Through his classic life story, AUTOBIOGRAPHY OF A YOGI—recognized as one of the most influential spiritual books of the 20<sup>th</sup> century—and his numerous other writings, he has inspired millions.

Self-Realization Fellowship/Yogoda Satsanga Society of India has more than 600 meditation centers, temples and retreats in more than 60 countries around the world. Information about the life and teachings of Paramahansa Yogananda is available from: Self-Realization Fellowship, 3880 San Rafael Avenue, Los Angeles, California 90065. Tel. (323) 225-2471 • Fax (323) 225-5088 • www.yogananda-srf.org.









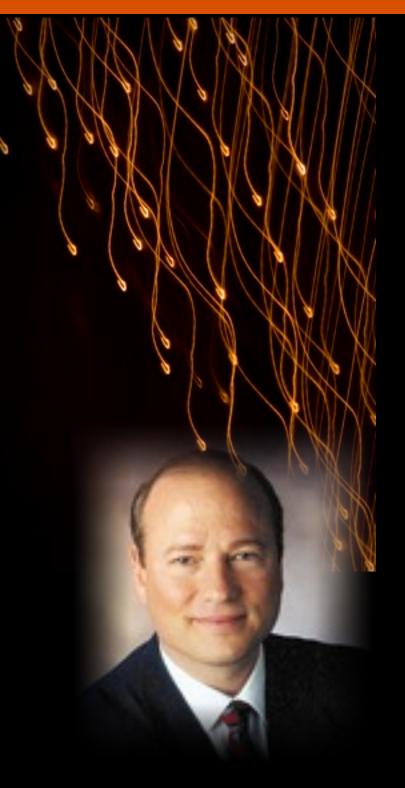
# CHI INNER-CHI=ENERGY

The ancient Chinese described chi as **"life force"**. They believed *qi* permeated everything and linked their surroundings together. They likened it to the flow of energy around and through the body, forming a cohesive and functioning unit. <sup>I</sup>*citation needed*<sup>I</sup> By understanding its rhythm and flow they believed they could guide exercises and treatments to provide stability and longevity.

Although the concept of *qi* has been important within many Chinese philosophies, over the centuries the descriptions of *qi* have varied and have sometimes been in conflict.<sup>[</sup>*citation needed*<sup>]</sup> Until China came into contact with Western scientific and philosophical ideas, they had not categorized all things in terms of matter and energy.<sup>[</sup>*citation needed*<sup>]</sup> *Qi* and *li* (理: "pattern") were 'fundamental' categories similar to matter and energy.<sup>[</sup>*citation needed*<sup>]</sup>

Fairly early on, some Chinese thinkers began to believe that there were different fractions of *qi* and that the coarsest and heaviest fractions of *qi* formed solids, lighter fractions formed liquids, and the most ethereal fractions were the "lifebreath" that animates living beings.

#### SCIENCE TO SAGE RADIO





#### John Hagelin Ph.D

Unified Field Theory and How it Relates to Consciousness

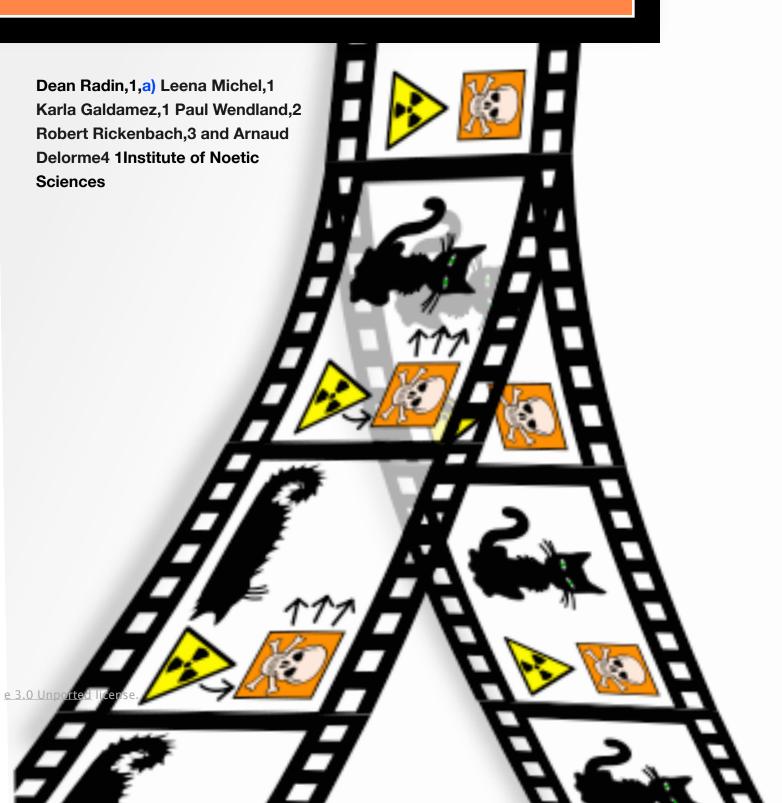
April 16

12pm, Central Shows Archived

Log in - awakeningzone.com



The quantum-mechanical "Schrödinger's cat" paradox according to the many-worlds interpretation. In this interpretation, every event is a branch point. The cat is both alive and dead—regardless of whether the box is opened—but the "alive" and "dead" cats are in different branches of the universe that are equally real but cannot interact with each other.



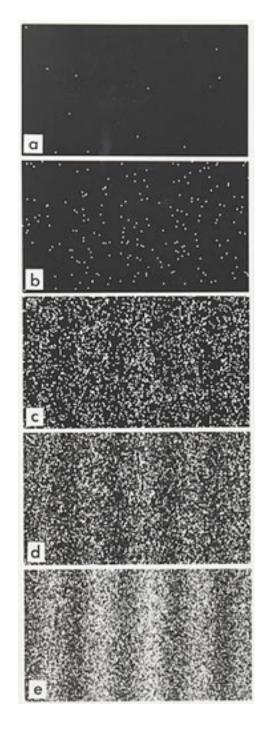
#### (THE DOUBLE-SLIT EXPERIMENT] HAS IN IT THE HEART OF QUANTUM MECHANICS. IN REALITY, IT CONTAINS THE ONLY MYSTERY.

### THE DOUBLE-SLIT EXPERIMENT

In this opening quotation, Feynman is referring to the quantum measurement problem (QMP), and in particular to the curious effect whereby quantum objects appear to behave differently when observed than when unobserved. The QMP is a problem because it violates the common-sense doctrine of realism, which assumes that the world at large is independent of observation. The conflict between naive realism and what the QMP implies that it has forced many of the early developers of quantum theory to ponder the meaning of observation and measurement. Some, like Pauli, Jordan, and Wigner, believed that some aspect of consciousness—referring to mind like capacities such as awareness, attention, and intention—was fund-a-mental in understanding the QMP.

Jordan wrote, "Observations not only disturb what has to be measured, they produce it....We compel [the electron] to assume a definite position....We ourselves produce the results of measurement."

This strong view of the role of consciousness in the QMP has been endorsed by physicists ranging from d'Espagnat to von Neumann and from Stapp to Squires. The significance of the proposition and the prominence of those who have proposed it have made the idea difficult to blithely ignore, but to many it challenges a deeply held intuition that the physical world was here, more or less in its present form, long before human consciousness evolved to observe it. As a result, many continue to resist the idea that consciousness has anything to do with the formation of physical reality.



According to Zeilinger, one approach to eliminating the observer from the QMP has been to reframe the problem by proposing that all that observation does is increase our knowledge about a measured system. From that position, the so-called measurement problem . . . is not a problem but a consequence of the more fundamental role information that plays in quantum physics as compared to classical physics.

According to Goldstein, another approach is to argue that decoherence theory obviates the QMP, but this proposal is not without problems. Others have attempted to finesse the QMP by denying that there ever was a problem.

Many physicists pay lip service to . . . the notion that quantum mechanics is about observation or results of measurement. But hardly anybody truly believes this anymore—and it is hard for me to believe anyone really ever did.

Still others have proposed that the only unambiguous way to avoid the role of the observer in physics is to deny the belief that we have free will. While free will as a brain- generated illusion is the prevailing assumption in the neurosciences today, that idea remains at odds with the only direct form of contact we have with reality— subjective experience—which paradoxically allows for the experience of deciding to believe that free will does not exist.

Philosophical and theoretical arguments aside, the double-slit experiment suggests a way to explore the meaning of observation in the QMP, and in particular the possible role of consciousness. It is based on two assumptions: (a) If information is gained—by any means—about a photon's path as it travels through two slits, then the interference pattern will collapse in proportion to the certainty of the knowledge gained; and (b) if some aspect of consciousness is a primordial, self-aware feature of the fabric of reality, and that property is modulated by us through capacities we know as attention and intention, then focusing attention on a double-slit system may in turn affect the interference pattern. The first assumption is well established. The second, based on the idea of panpsychism, is a controversial but respectable concept within the philosophy of mind.

#### IN SUM, the

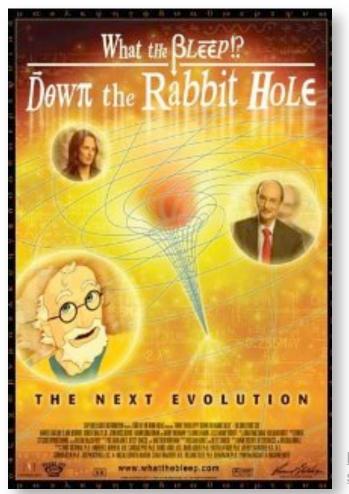
results of the present experiments appear to be consistent with a consciousness-related interpreta- tion of the **QMP.** Given the ontological and epistemo-logical challenges presented by such an interpretation, more research will be required to confirm, systematically replicate, and extend these findings.



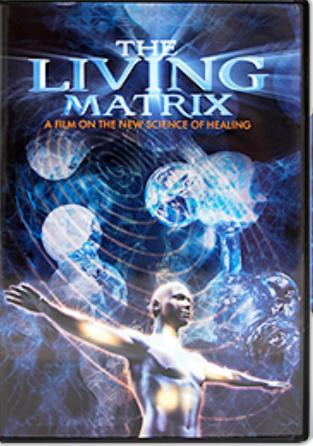
### THE DOUBLE-SLIT EXPERIMENT

**Abstract:** A double-slit optical system was used to test the possible role of consciousness in the collapse of the quantum wave-function.

CONSCIOUSNESS AND THE DOUBLE-SLIT INTERFERENCE PATTERN: SIX EXPERIMENTS

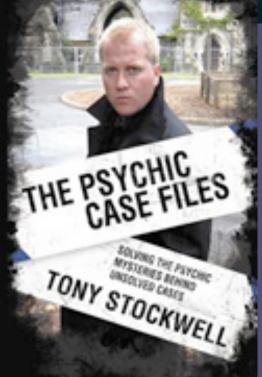


http://www.whatthebleep.com/ scientists/drh-scientists.shtml





# PSYCHIC MEDIUM TOUR



# SURVIVAL



Thursday,April 25 6:30-8pm Talking & Signing FREE at Banyen

April 26-May 3

**3 Day Intensive Workshop** Location: The Executive Airport Hotel & Conference Centre, Richmond

More information: http://lisawilliamsandtonystockwell.shanaleegibson.ca/

#### Tickets: (604) 737-8858

I-800-663-8442/(604) 732-7912 3608 West 4th Ave,Vancouver BC http://www.banyen.com Join renowned Mediums Lisa Williams and Tony Stockwell for a mediumship demonstration evening, one-day seminar, 3-day intensive workshop, a one-day Psychic & Spirit School and a one-day Psychic Detection Workshop.

BANYEN BOOKS & SOUND

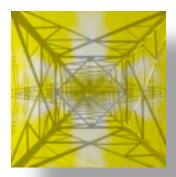
MEDIUMSHIP FOR ME IS SHIFTING MY AWARENESS and becoming less aware of the physical world and things around me and giving my focus and attention to a completely different vibration, almost like tuning a radio from one station to the next, with me the medium being the radio.

# TONY STOCKWELL

I start by closing my eyes and becoming aware and focusing on the space to my left hand side, and then within that space it's as if the energy occupying it becomes a vibrant living thing. I focus on my breathing in an effort to still my own mind, as a busy mind is not conducive to easy flowing spirit communication. This is course is easier said than done and for me has taken many years of practice, training and dedication, to where I am at the point now where it's almost instantaneous the minute I have the intent to work.

Once my mind is still enough my awareness goes from within me back to the space on my left, **like all my thoughts and feelings are flowing from that space and not the space within my own mind.** That is when hopefully a spirit person steps in and I become aware of them.

There is always a huge element of trust all the time this is going on, that the spirit world are one step ahead of you and whilst you doing your part and being receptive in preparation to work, they are doing their own part in retuning their own awareness and vibration to meet you half way so that communication between the two can happen.







...,almost like tuning a radio from one station to the next, with me the medium being the radio

#### FROM THIS POINT ON THOUGHTS AND IMAGERY ENTER MY CONSCIOUSNESS.

Now the discipline here is trying to interpret this overwhelming flood of information and to place it into some kind of coherent order that shapes the physical description, personality, memories and emotions of the discarnate spirit you are connecting with. This will then hopefully be recognised and by the living. accepted My own mediumship has been changing recently and I have been pushing myself to go beyond the facts and statements relating to that spirit person and their physical life, to get to the point where you are able to receive and pass on what they actually want to convey, which can be very different from what the recipient of the message wants to hear or the medium wants to say, I refer to this as 'intelligent communication'. This is recognising the spirit is more than just sum of their memories and а experiences of earth and acknowledging the intelligence behind them is still there and evolving. Although very important, mediumship needs to be about more than just facts that can be validated, it needs to show life is continuous.

The want for spirit communication after a passing can be needed as much by the loved one who has passed as it can be for

the living desperate for a message from a medium. It's natural to want to come back and say, "I'm Ok", or "I arrived safely" or even just "I still love you, even though we are on different sides of life".

In the case of sudden or tragic passing's, in my experience, the need for the spirit people to get a message back can be intensified as there would not have been the preparation as there may have been with some illnesses. Quite often things are left unsaid or unresolved and there wouldn't have been time to say the 'goodbyes' or to say 'I love you' one more time. It's a lot to do with closure, which there wouldn't have been the chance for when the passing and returning home to spirit was fast, tragic or unforeseen.



Grief is a terrible thing to bear, whether you have a belief in the afterlife or not as there is still the physical absence of that loved one, but when there was no warning or prior knowledge the shock can be excruciating. Often when a case has been tragic or a life taken, the spirit may even have a need to help bring about some resolution too.

Our loved one in spirit would be fine, surrounded by comfort, warmth and old family and friends, but they may still have a need and want to ease the grief ever so slightly of those they left behind.

When we take vacations it's often normal to phone home from our destination to say we have arrived safely, the hotel is lovely and that you are still thinking of them, it's exactly the same when a person goes to the spirit world.

I think a big lesson here would be to never let those you love be in any doubt just how much you love them. Tell them every day and never leave any matter unsaid, as sometimes the uncertainness of life might just deny you that opportunity.

www.tonystockwell.com



**BIO:** TONY STOCKWELL is one of the most well-known and respected Psychic mediums in England. He has worked extensively in the media; has had four television series, The Psychic Detective, Street Psychic, Psychic School, and Psychic Academy; and has appeared

regularly on 6ixth Sense. He is also author of four books, including Spirited and Walking with Angels. Tony is one of five mediums featured at International Mediumship week at Omega Institute in Rhinebeck, NY along side World Renowned Psychic Medium's James Van Praagh and John Holland. EXCERPTS FROM "RESONANCE"

# NEAR DEATH

I don't exactly recall what was on my list of things to do that day in December 1976, but certainly death was not one of them.



I was the head of a research laboratory in Seattle, Washington, where we used electron microscopes to study the effects of pollutants on fish. The lab was with the National Marine Fisheries Service, a branch of the National Oceanic and Atmospheric Administration. Our facility sat on the edge of a ship canal that connected two huge lakes, part of the watery charm of Seattle. With five assistants, two electron microscopes, a state\_of\_the\_art photographic darkroom, and all kinds of fancy equipment to do our work, we were a busy research group: publishing papers and traveling in the United States and abroad to talk to groups of scientists. It was a time of excitement and career success for me. I had won the respect of my colleagues for earlier work with a high\_speed ruby laser and its biological effects, and enjoyed the elected position of fellow with the American Association for Advancement of Science, I loved every minute of this work.

I HAVE INSIDE ME THE WINDS, THE DESERTS, THE OCEANS, THE STARS, AND EVERYTHING CREATED IN THE UNIVERSE — PAULO COELHO

I did not spend much time at home, nor did I love housework. On a Friday night I was hurriedly cleaning house and had no idea that in minutes my life would change abruptly. The vacuum cleaner chugged along with me through the bedroom, down the long hallway, and I had nearly finished the living room. The last sweep was in front of the fireplace hearth, 15 inches away from the mantel. I did not bump the mantel or touch the fireplace, yet in a flash a heavy, leaded glass art piece framed in thick oak toppled off the mantel onto my head. I crumpled to the carpet, crushing pain shot through my head, and I was out. From there on nothing was ordinary. My awareness no longer resided in my body. I had no sense of a body, or of my house, or of living across the street from Greenlake in Seattle, or even of my own name.

June 18, 2013 SCIENCE TO SAGE RADIO GUEST: JOYCE HAWKES, PH.D Host Karen Elkins Noon Chicago Time / Live AwakeningZone.com





I WAS ZIPPING ALONG A LONG, DARK TUNNEL, DRAWN TO A BEAUTIFUL AND WELCOMING LIGHT FAR AHEAD. At the end of this tunnel, just before the entrance to the lighted place, my deceased mother and grandmother stood. They were radiant with good health, glowing with love, and welcomed me wordlessly. I was overwhelmed to see them. I had missed them intensely, but had no belief in an afterlife, so seeing them astonished me. It seemed like we were together for an eternity, and yet I moved on without remorse or sadness into the place where the light was stronger still.

I marveled at the beauty of the scene before me. The sky was a shade of blue that I had only seen in the high mountains just before dusk-almost iridescent-with a richness never seen in cities. The luminous color lifted my spirit. The hues did not fade as if night were approaching but stayed glowing with awe-inspiring brightness. The surroundings were suffused with light. I seemed to be standing on a slight rise with a sweeping view of rolling hills. The colors reached out with brilliance. Blades of grass glowed with a quality of green that sparkled without a hint of harshness. The flowers glowed as if each petal and leaf emitted its own light. My being was immersed in peace and tranquility. I had a relaxed inner hum of joy and such fullness of awareness that to leave or anticipate leaving was unthinkable. I was fully present in a manner that I had never experienced before. I walked down the hillock into a bit of a valley while I continued in the fullness of each moment. There was no sense of the passage of time or concern about what time it was or if there was anything else at all to do except to be fully present. What an unexpected surprise that this glorious place could be my destination. I was a staunch atheist. I had never heard of near-death experiences and had no inkling about spiritual experience in expanded realities.

THE FLOWERS GLOWED AS IF EACH PETAL AND LEAF EMITTED ITS OWN LIGHT.

> High Desert Tulips Image taken by Krishna Madappa with the GDV.



Before I could think much more about how this all happened and without a forewarning of the impending change, I found myself transported to another location. I saw steps and a platform that softly glowed with a golden light. I was drawn to walk up the steps onto the platform toward the one and only being I saw. No voice told me to do that and no mind chatter argued whether I should or should not approach the being. Some feeling of welcome, safety, and joy drew me up the steps without hesitation.

Light infused everything. I felt buoyant and totally at peace. The same sense of each moment having its own relaxed fullness was there as it was in the place of rolling hills. I had no desire to leave, no desire to be or do anything other than bask in the luminous presence before me and all around me. There was no fear in me and no anticipation whatsoever.

At some point in this reverie I recognized that my entire life was fully known and each part of it was understood and not judged. Did this awareness come from outside of me or well up from inside? I could not tell, but it gave me freedom from selfjudgment. Suddenly I was abruptly back on the floor of my living room with an excruciatingly sore head. I reached my hand to the hurt place and found a mat of dried blood. I was shocked to realize that I had been out for more than a few seconds. How long had I been unconscious? It was an hour and a half or maybe more. I did not seek medical help until Monday morning when my co\_workers whisked me off to a doctor, who found a blood clot on my brain. I was instructed to go home and rest for a few weeks, but I did not need surgery. I had always been so healthy and physically active as a skier, mountain climber, and hiker that this was a major change for me.

I was flooded with new appreciation for my life. I was equally flooded with new awareness of the expanse of possible realities. To be sure, as my awareness of the certainty of an afterlife expanded so did my appreciation of the precious moments of human existence. Initially, I tried to dismiss the entire vision of "the other side," but I could not shake the impact of the peace, joy, and clarity I felt. The images were brilliantly fixed in my mind.

Fortunately, my recovery was complete with no functional or clinical brain damage. I returned to the lab and the work there, but I also began searching for books and people who knew about near-death experience. I found a local healer and took classes with him. I began meditating daily. SOME SEVEN YEARS LATER, AND AFTER A PROFOUND VISIONARY CALLING TO HEALING, I resigned my position at the laboratory and opened a small office as a healing facilitator. Now, 26 years later, these decades of work, meditation, travel, and writing continue full of joy, growth, new insights, and great appreciation for all that has happened.

Recently, I was swapping stories of neardeath experiences with a fellow in a neighborhood coffee shop. He had passed out from a drug overdose and was taken to a hospital. At the time, he had no belief in spirituality and no belief in God. He recalls how he floated above his body and looked down on himself on a surgical table. He heard a doctor say that they were losing him. Then he zoomed back toward his body and remembers nothing after that. Years and years later after his recovery, he continues to wonder what aspect of his mind or spirit might exist beyond the biology of his brain. What could produce such an image, such an episode? He said that the event is as fresh today as when it happened 25 years ago. As he told me about it, shivers ran up and down my spine. In turn, I related my experience to him; the images I saw and feelings I had were also as fresh as if they happened a day—rather than decades—ago.

Our perception is remarkably variable. We have a choice to either keep a narrow outlook or to relax and open to an expansive view.



Joyce doing healing work while her brain activity was being recorded at Dr Mori's laboratory in Japan



Brain scan images from Joyce Hawkes at Nihon University, Tokyo, Japan

www.celllevelhealing.com

Fortunately, it does not take a near- death experience to increase awareness nor to embrace a fuller appreciation of life. In my case, as a thoroughly hardheaded person, I've often thought that it did take a crack on the head to get my attention. Now I listen more easily and quickly, not out of fear of another injury, but from a place of remembering the exquisiteness of the other side, and how I felt totally known and loved. My understanding of reality changed permanently. If we are touched by the divine presence during meditation, in synagogue, in a mosque, in church, in the wilderness, or wherever it may happen, the result can bring new insights. How we see our lives and the world around us is transformed

Awareness draws us once again to notice what dimension of reality we have engaged. In everyday experience we know that several dimensions of reality impinge on us constantly whether we are aware of them or not. The pull of gravity keeps our feet on the planet while the mystery of the dark matter and dark energy of the universe penetrates every aspect of our inner and outer lives. We cannot describe or discern the impact of what can neither be seen nor measured. Existing outside of the electromagnetic spectrum this unknown stuff is a huge part of us, everything around us, and everything far away from our planet. If we zoomed into space and traveled to the Orion nebula, 1,500 light\_years away, we could witness the destruction of old stars. We would see the efficacy of the universe in recycling all matter in the dynamic process of reworking the aged star stuff. The birth of new stars would happen before our eyes from that very material. Along with what we see through telescopes, the secret work of dark matter and energy mixes its influence into the wonder of star birth.

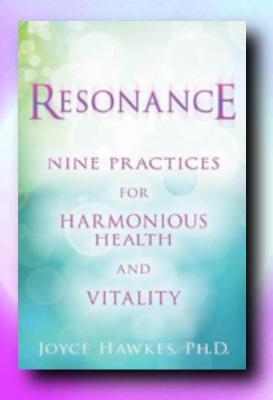
#### Joyce Hawkes is a biophysicist and cellbiologist by training.

She is currently a Fellow in the American Association for the Advancement of Science. Over the course of 15 years, she has earned an international reputation for her scientific contributions in the field of ultra high\_speed laser effects on cells, and the effects of environmental pollutants on cells. She has published 36 peer\_reviewed scientific papers.

Following a near-death experience in 1984, Joyce changed careers and embarked on extensive exploration of indigenous spiritual and healing traditions, which she incorporated in her first book, **Cell-Level Healing: The Bridge from Soul to Cell**. Dr. Hawkes is the founder of Healing Arts Associates and maintains a private practice in Seattle. JOYCE WHITELY HAWKES, PH.D.

# RESONANCE

INSPIRATIONAL BEAUTIFULLY MASTERFUL Wonderful, graceful and transformational



It is difficult to read this book and not use superlatives. Dr. Hawkes has written a treasure which celebrates body, mind, and spirit health. I could not help smiling as I read this book.

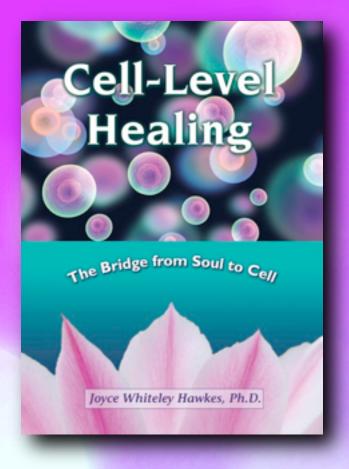
Gary E. Schwartz, PhD. professor of psychology, medicine, neurology, psychiatry and surgery at the University of Arizona, Author of "The Energy Healing Experiments and The Sacred Promise"

BUY THE BOOK www.celllevelhealing.com

In **Resonance**, scientist\_healer Joyce Hawkes offers a set of powerful practices – an exquisite balance of action and contemplation – which add up to a complete prescription for living the integrated life.

Lynne McTaggart, Bestselling author of "The Field, The Intention Experiment, and The Bond"

Audio Excerpt-Listen as Joyce reads from Resonance.



"*Cell-Level Healing* is quite simply the whole exciting truth about how and why our consciousness is key to our physical health and well-being."

**Christiane Northrup, M.D.**, author of Mother-Daughter Wisdom, The Wisdom of Menopause, and Women's Bodies, Women's Wisdom

"*Cell-Level Healing* is a remarkable bridge between conventional cell biology and the far reaches of self and spiritual healing. Dr. Hawkes skillfully combines her solid scientific grounding and experience in mainstream biophysics with personal insights gained from a near-death experience and extensive training in the alternative healing arts. Hawkes beautifully demonstrates how science and spirituality can peacefully coexist and inform each other in beneficial and refreshing ways."

**Dean Radin, Ph.D.**, senior scientist, Institute of Noetic Sciences

### JOYCE WHITELY HAWKES, PH.D. CELL-LEVEL HEALING

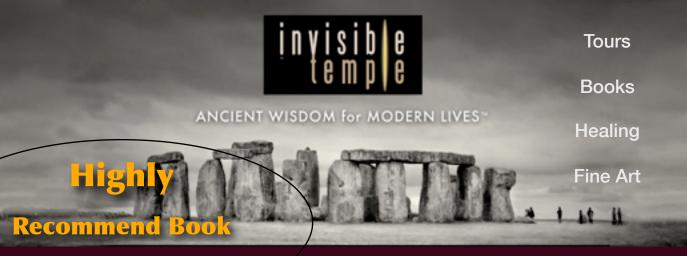
#### THE BRIDGE FROM SOUL TO CELL

provides information and instruction to heal & deepen your awareness of the magnificent and amazing cells of your body:

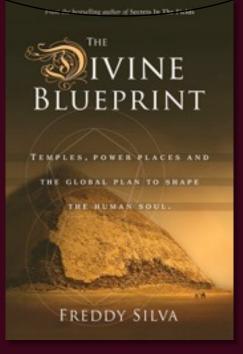
- Learn simple cell basics that you can use to enhance your health and healing
- Learn how to identify blockages to healing and how to clear them
- Find a new appreciation of your body's innate healing ability
- Through stories of others' healings, find information that may help your personal healing journey
- Participate in enhancing your health through a variety of easy\_to\_follow and highly effective exercises
- Enjoy 32 full\_color pages of inspiration, information, and illustrations about the principles and practices included in the text

BUY THE BOOK www.celllevelhealing.com

# FREDDY SILVA



by Science to Sage



## The Divine Blueprint

Temples, Power Places and the Global Plan to Shape the Human Soul.

A fresh and insightful account of the role played by sacred sites in raising human consciousness.

## First Templar Nation

How the Knights Templar created Europe's first nation-state Their greatest accomplishment is the one never told. They held the vision of a free nation. first templar nation

INT ACCOMPLISIOURNT

BOW THE BOW THE CHEATED CHEATED BE BOFFES FIRST NATION-STATS.

SILVA



DATURA FLOWER IS THE FLOWER OF THE SHIVA'S COSMIC DANCE

#### SEED POD

#### DATURA FLOWER - LIGHT AND LIFE OF THE PLANT

#### INNER CORE OF BUD

BUD

PHOTO'S BY KRISHNA MADAPPA See their Aura , GDV Images here

SA

GD

# ESSENTIAL OILS



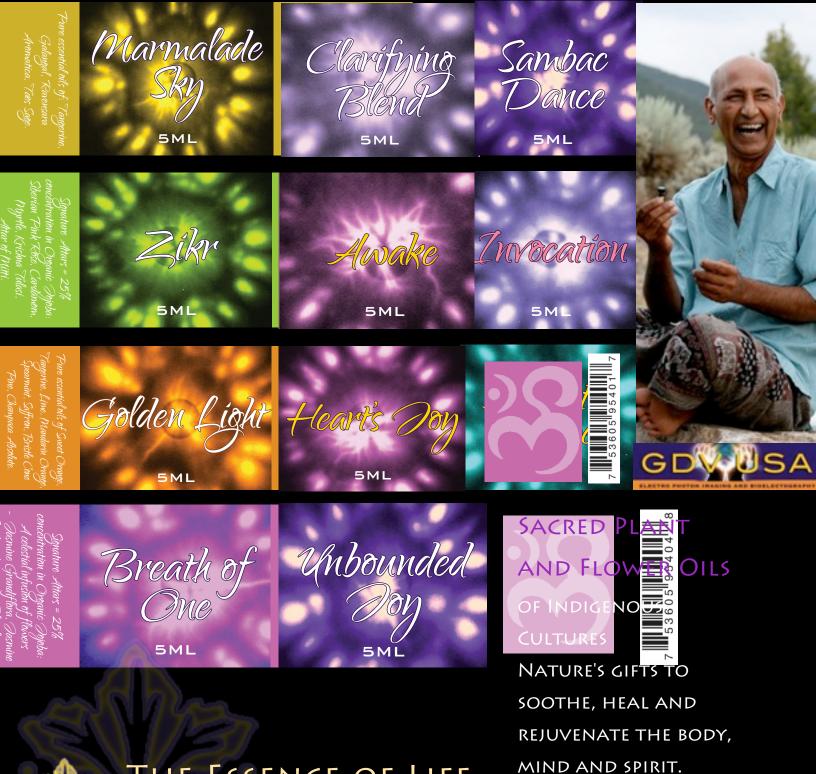
THE ESSENCE OF LIFE by Krishna

#### HEAL AND REJUVENATE THE BODY, MIND AND SPIRIT

Krishna's essential oils orchestrates the symphony of a blend with their sounds, weight, color and texture. Whether in preparation for a ceremony, a journey to India or a beloved – each blend is created not only for the purpose of sharing the color, sound and passion of a particular experience but to EVOKEIT.

Order Your Blend Today <u>Wide Variety</u> <u>www.cancun.net/db/sook/pform/</u> <u>575\_770\_3304</u>

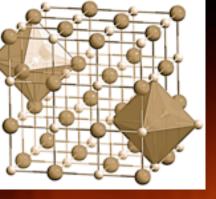
#### evoke the Essence of Life





THE ESSENCE OF LIFE by Krishna

Order Your Blend Today www.cancun.net/db/sook/pform/ 575\_770\_3304

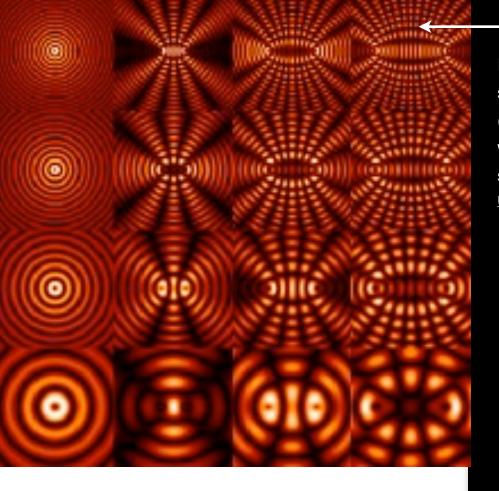


"The Universe in which we find ourselves and from which we can not be separated is a place of Law and Order. It is not an accident, nor chaos. It is organized and maintained by an Electro-dynamic field capable of determining the position and movement of all charged particles.

Their discovery is of immense significance to all of us. Dr. Burr believed that, since measurements of L-field (Life Force) voltages can reveal

physical and mental conditions, doctors should be able to use them to diagnose illness before symptoms develop, and so would have a better chance of successful treatment.

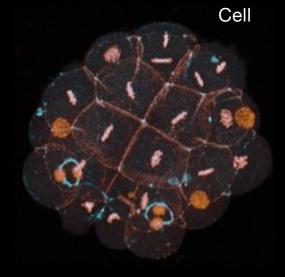




#### <u>The Electrical Patterns of Life;</u> <u>The Work of Dr. Harold S. Burr</u>

Dr. Burr discovered that all living things –
from men to mice, from trees to seeds –
are molded and controlled by electrodynamic fields, which could be measured
and mapped with standard voltmeters.
These "fields of life," or L-fields, are the
basic blueprints of all life on this planet.

Interference of two circular waves, snapshots of absolute value of (real,scalar) wave field for different wave lengths and distances of point SOURCES. Author: http://en.wikipedia.org/wiki/ User:FlorianMarquardt



THE STUDY OF CRYSTALS WAS BASED ON THEIR GEOMETRY.



Photo of turtley Kirt L. Onthank/Turtle

ELECTRODYNAMIC ACTIVITIES AND PATTERN FORMATION



# DR. MAE WAN HO

All plants and animals, whether single-celled or multicellular, from egg or seed to fully developed

### ORGANISM, POSSESS AN ELECTRODYNAMIC `LIFE-FIELD'

## (L-field) that can be mapped at or close to the surface with appropriate

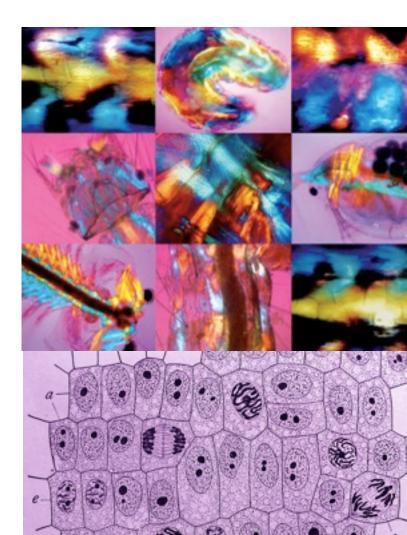
voltmeters and electrodes. Its pattern changes during growth and development, correlating with body plan and organisation, as well as physiological and mental states. However, the source of the L-field is still unknown.

New evidence suggests that the L-field is generated by and embodied in the quantum-coherent liquid crystalline water that makes up 70-90 % of organisms and cells and is essential for life.

Water forms quantum coherent domains at ordinary temperatures and pressures. Within organisms, coherent domains become stabilized as liquid crystalline water on the vast amount of membrane and macromolecular surfaces, effectively aligning the entire body electrically to form a single uniaxial crystal. This liquid crystalline water makes life possible by enabling proteins and nucleic acids to act as quantum molecular machines that transform and transfer energy at close to 100% efficiency. It provides excitation energy to split water in photosynthesis, releasing oxygen for the teaming millions of air-breathing species that colonize the earth, at the same time

### generating electricity for intercommunication and the redox

chemistry that powers the entire biosphere.



### DR. MAE WAN HO QUANTUM COHERENT LIQUID CRYSTALLINE WATER IS LIFE-FIELD & BODY ELECTRIC PART 2, PART 1 IS IN THE MARCH EDITION

The L-field is separate from, and independent of the action potentials of the brain, or the electrical discharges from the heart measured respectively in electroencephalograms (EEGs) and electrocardiograms (ECGs). In fact, evidence already available to Burr suggested that EEGs and ECGs are controlled by variations in the L-field, which would show up as baseline potential changes under the action potentials of the EEGs and ECGs, had they not been filtered away (!) in most readings as noise or a nuisance rather than important physiological and psychological information. For example, Burr and colleagues discovered that high potential differences measured between the left and right index figures may be predictive of mental instability.

Evidence that action potentials reflect global field potential changes also came from early embryonic development.

By far the most important unsolved problem in biology is how a relatively featureless egg can transform into a shapely highly differentiated organism in the process of development. I was among a very small number of scientists who believe electrodynamical processes are fundamentally involved in pattern formation.

We carried out several series of experiments described in a paper published more than 20 years ago [18] <u>Electrodynamic</u> Activities and Their Role in Organisation of Body Pattern (ISIS scientific publication), which provided evidence of highly coherent electrodynamic processes responsible for generating body pattern during early development.

For our experiments we collected synchronously developing batches of freshly laid fertilized eggs from Drosophila. The first series of experiments was carried out in the laboratory of electrophysiologist Charles Nicholson at New York University Medical School, who patiently taught me how to make microelectrodes to record the electrical activities from individual developing embryos without damaging them. The embryo, with its shell (chorion) removed, was attached by hydrophobic interaction between the vitelline membrane and the plastic surface of a petri dish. It was immersed in insect Ringer to keep it from drying out. And the electrode was carefully inserted into the anterior or posterior polar pocket inside the vitellline membrane without puncturing the embryo. The results were amazing. A series of action potentials from 1 to 30 Hz appeared at least as early as 40 minutes from the start of development and persisted for hours thereafter (see Figure 3). During most of the period in which pattern determination takes place, there is little or no cellular organisation.

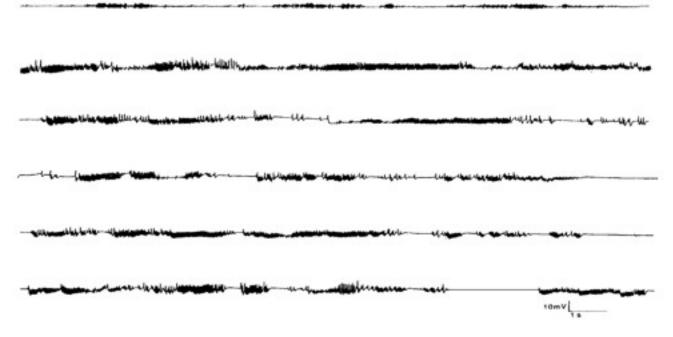


Figure 3 Action potentials as successive later time segments at nuclear migration stage (43 – 53 min from start of development) (from [18])

The trace typically starts with clusters of 2, 3 or 4 volleys of discharges (about 30 Hz) each lasting 1 or 2 s, punctuated by 2-3 s of relative quietude. The volleys increase in amplitude and tend to coalesce into a continuous train. The peak amplitudes are about 10 - 12 mV. The highest frequency of the spikes are about 30 Hz, but can be as low as 15 or 5 Hz. Characteristically, the baseline potential shifts underneath the spiking activities, often coinciding with the start and end of the volleys, strongly suggesting that those shifts are global in extent, and both initiate and end the volleys.

In the second set of experiments carried out in my own laboratory, we exposed the synchronously developing batches of fertilized eggs for 30 minutes to weak static magnetic fields (0.5 to 9 mT) at different times during the first three hours of development when pattern determination is

known to occur. This resulted in high proportions of body pattern abnormalities 24 hours later, when the first instar larvae would have normally hatched. The most frequent type of abnormalities is uniquely associated with exposure to static magnetic fields, and consists of variously twisted configurations of the segmental pattern. As static magnetic fields were used, the effects must have been due to moving electrical charges or more likely global field dynamics; and as the energies in the weak magnetic fields were many orders of magnitude below the thermal threshold of random molecular motion, there could have been no effect unless the electrodynamical processes were highly coherent (for details see [19] Brief Exposure to Weak Static Magnetic Fields during Early Embryogenesis Cause Cuticular Pattern Abnormalities in Drosophila larvae, ISIS scientific publication)

# DR. MAEWAN HO

In the third series of experiments done in the laboratory of Fritz Albert Popp, who taught me almost everything I know about quantum physics, the flies were induced to lay eggs in a quartz cuvette, then gently removed. The cuvette with freshly laid eggs was placed in a light-tight chamber connected to a sensitive photon counter, and the photons emitted were recorded with or without a single flash of white light (I min, 4W/ m<sup>2</sup>). Photon emission changed with developmental time, which was not unexpected. Remarkably, when embryos less than 40 min old were stimulated with light. an entirely new phenomenon appeared that has never been observed before: intense light flashes were re-emitted, thousands of times stronger than the base-line. The flashes can be extremely brief (<1 s) or very prolonged (minutes to hours), and can appear any time from one to 20 minute, and up to 8 hours after light stimulation (see also [17]). The results are reminiscent of super-radiance in quantum optics, a collective resonant emission involving many, if not all individuals within the synchronously developing population.

These results together provide evidence of electrodynamical activities accompanying pattern formation that are coherent over the whole embryo, and entire populations of embryos. It would be great to look at these embryos again with voltage sensitive dyes. I have been prompted to revisit these old forgotten findings on coming across a paper by Alexis Pietak from Kingston, Ontario in Canada [20] proposing a new mechanism for morphogenesis: the formation of resonant electromagnetic modes in a dielectric microwave resonator.

Resonant modes are standing wave patterns formed when a wave is confined within a resonator and subjected to reflection from internal boundaries where incident and reflected waves combine. This is something like the Schumann resonances generated in the cavity between the earth's surface and the ionosphere (see above), but on a much smaller scale of 0.1 to 1 mm, the dimensions of eggs and primordia. Consequently, the frequency of the electromagnetic waves involved is much higher, in the microwave to sub-millimetre range or GHz (10<sup>9</sup> cycles per second). Using the mathematical technique of finite element analysis Pietak produced resonant modes (in ellipses and a sphere) (Figure 4) whose patterns resemble different kinds of leaves.

As Pietak noted, this type of mechanism is not restricted to generating leaf patterns. The *Drosophila* egg is a long ellipse, and successive horizontal resonant modes are reminiscent of stages in the process of segment determination as revealed by the famous gene transcript patterns, which are most likely involved in downstream processes of pattern formation.

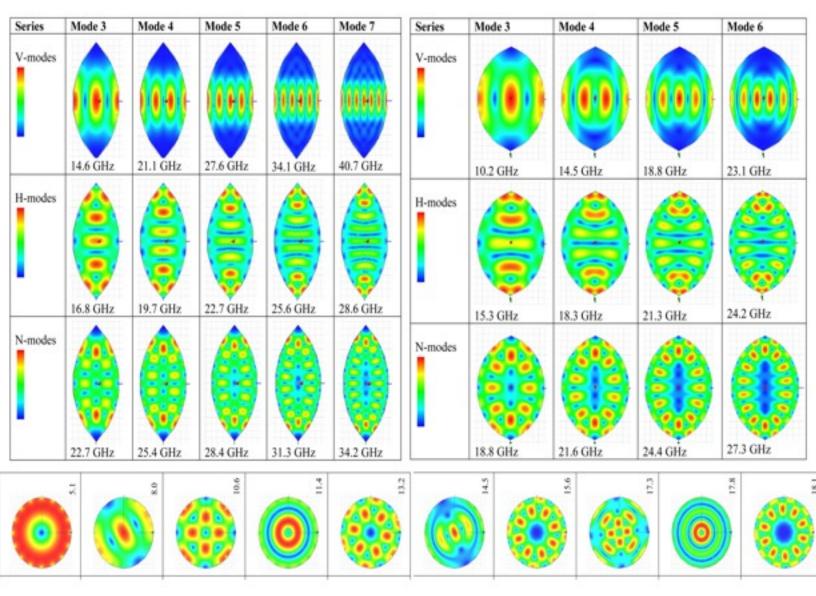


Figure 4 Resonant modes in elliptical and spherical resonators generated by finite element analysis and the resonant frequencies in GHz; V, vertical, H, horizontal, N, nodal (rearranged from [20])

Pietak emphasized that "the model rests on the validity of biological described coherence theories as bv field Fröhlich... and/or quantum theorists." Herbert Fröhlich (1905–1991) [20] proposed that organisms are condensed matter systems, and can be pumped by metabolic energy into states of coherent excitations (resonant modes) in with solid-state analogy the laser. Ouantum field theorists Emilio Del Giudice

and colleagues propose that interaction between ambient electromagnetic fields and soft condensed matter such as liquid water creates coherent domains oscillating in phase with the electromagnetic field [21]. I have described the work of Fröhlich in the Rainbow Worm [17] and quantum field electrodynamics is treated in some detail in my new book [22] Living Rainbow H2O; both providing extensive evidence for the quantum coherence of organisms.

Field theories of morphogenesis go back at least to the 1920s associated especially with Alexander Gurwitsch (1874-1954) in Russia and Paul Weiss (1898-1989) in Austria; but they were rather vague (see review in Order and Life [23] by Joseph Needham (1900-1995). A significant advance was made by John Totafurno and Lynn Trainor (1921-2008) in a paper published in 1987 [24], using a vector-field model to predict baffling results of salamander limb regeneration. In these experiments, a limb was amputated, and the regenerating cell mass was transplanted and/or rotated, leading to abnormal limb regrowth that were determined by the way the cell mass was transplanted. A vector-field has both orientation and continuity, and any disturbance to the field lines need to be smoothed out and reconnected, with the result that extra limbs are generated in certain transplants.

I suggested that the morphogenetic field could be 'written' – like memory - in liquid crystalline orientation patterns [17, 25] (Liquid Crystalline Morphogenetic Field, SiS 52), which in turn determine gene transcription patterns and growth.

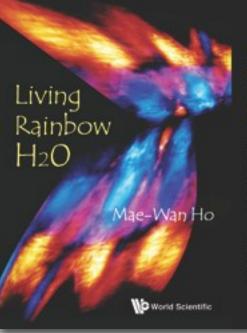
Liquid crystals are well-known to respond to electric and magnetic fields in generating patterns, as well as in changing their alignments. Thus, resonant electromagnetic modes generated in the *Drosophila* embryos could give rise to segmental patterns in the liquid crystalline cortex of the early embryos, which result in the well-known gene transcription patterns that lead in turn to the differentiation of the initially cryptic pattern. Static magnetic fields could indeed have a dramatic effect on the liquid crystalline patterning by resonant electromagnetic modes, and hence on the body pattern.

Despite substantial evidence on the existence of L-fields, and the fundamental importance of electrodynamic processes in living organization and function, there is still little clue as to how the L-field is generated and where it resides. In the second part of this lecture, I shall present evidence that liquid crystalline water in living organisms is both the body electric and the L field.

- Ho MW. Drowning in a sea of microwaves. <u>Science in Society 34</u>, 11-13, 2007.
- 2. Ho MW. Cancer risks from microwaves confirmed. <u>Science in</u> <u>Society 34</u>, 14-15, 2007.
- Ho MW. Mobile phones & vanishing birds. . <u>Science in Society 34</u>, 16, 2007.
- Ho MW. Mobile phones and vanishing bees. . <u>Science in Society 34</u>, 34, 2007.
- 5. Becker RO and Selden G. The Body Electric, Electromagnetism and the Foundation of Life, Harper, New York, 1985.
- Ho MW. Wireless phones and brain cancer. <u>Science in Society 51</u>, 10-11, 2011.
- Sirinathinghji E. The promise of induced pluripotent stem cells. <u>Science in Society 51</u>, 42-43, 2011.
- Sirinathinghji E. Stem cells repair without transplant. <u>Science in Society</u> <u>50</u>, 48-49, 2011.
- 9. Ho MW. Membrane potential rules. Science in Society 52, 12-14, 2011.

DR. MA WAN HO

# Dr. Mae Wan HO



"Water is the means, medium and message of life, the rainbow within that mirrors the one in the sky"

A unique synthesis of the latest quantum physics and chemistry of water that tells you why it is so fit for life

Sequel to The Rainbow Worm in the author's quest for the meaning of life



Mae-Wan Ho obtained her BS in Biology in 1964 and her PhD in Biochemistry in 1967 from Hong Kong University. She was a postdoctoral fellow in Biochemical Genetics from 1968-1972 at the University of California in San Diego during which time she won a competitive fellowship of the US National Genetics Foundation. She then became a Senior Research Fellow in Queen Elizabeth College in the UK. Ho then became a lecturer in Genetics in 1976 and a reader in Biology in 1985 in the London Open University. In 1999, Ho founded ISIS, The Institute of Science in Society in London, to promote her views and views of other scientists of like-mind.Dr. Ho retired in June 2000 and remains a Visiting Reader in Biology at the Open University and is a visiting Biophysics professor in Catania University, Sicily. Today, Dr. Ho has close to 300 publications including 47 experimental works. (ISIS,2004)

## Four Angels of the Apocalypse

While the word apocalypse is often defined as "the complete final destruction of the world, or an event involving destruction or damage on a catastrophic scale", the etymology of the word "apocalypse" is the Greek "apokaluptein" (from apo-"un-" + kaluptein "to cover") meaning to "uncover" or "reveal". The apocalypse then, can be seen as a revealing of something that has been hidden.

# HESKIN & WEAVER

This singular story, told across all cultures and religions since the beginning, has a much deeper cosmological interpretation when seen through myth and archetype.



The Four Horsemen of the Apocalypse are described in the New Testament of the Bible called the Book of Revelation of Jesus Christ to Saint John the Evangelist. In God's right hand is a book/scroll sealed with seven seals. Jesus opens the first four of the seven seals, which summons forth four beings that ride out on white, red, black, and pale (or green) horses. The four riders are commonly seen as symbolizing Conquest, War, Famine, and Death, The Christian apocalyptic respectively. vision is that the four horsemen are to set a divine apocalypse upon the world as harbingers of the Last Judgement.

The year 2012 was prophesied by several cultures as the "end of time" and many have interpreted this as meaning the end of Earth. Fundamentalist religious groups await the destruction of the world, which will supposedly bring the return of a messiah or savior and the "chosen ones" will be saved or spared. While the figure is different according to each religion, the storyline remains essentially the same, and looking more deeply into the symbolism of these religions, we find one story told around the world.

## White Angel of Liberation Vanquishing Conquest

A re-visioning of the well-known "Birth of Venus" paintings, with a deeper understanding of the planet Venus as the Great Comet of antiquity, and identifying the Birth of Venus as an actual event in the beginning of recorded history. Venus was once a beautiful and terrifying comet and the Saturnian planetary configuration created a cataclysmic event that shaped human consciousness, often referred to across cultures as "the great battle in the heavens".

A Thunderbolt Caduceus (symbolizing both healing as well as the cosmic plasma discharge formation) points down to a military graveyard on the reddish planet, Mars. The goddess is crowned by her planet's orbital pattern as seen from Earth, the five inferior conjunctions of Venus.

The drive for conquest and subjugation is a collective expression of an unconscious fear of being annihilated, perhaps by a great planetary cataclysm. Understanding the truth of ancient history and bringing to light collective unconscious memory is a path to freedom. True liberation is immune to subjugation and defies conquest; the goddess/planet Venus also represents love and is known as the "morning star" signifying the arrival of the dawn after a period of darkness.





### Red Angel of Peace Overcoming War

The planet Mars is the archetypal warrior-hero, the ultimate model for kings in all civilizations and cultures worldwide. In this interpretation, peace is found through accepting and forgiving violence and upheaval in the past. The intense planetary interactions between Mars and Venus in the prehistorical epoch continue to affect the core of humanity, as all war is an unconscious expression of the collective human trauma incurred when Earth experienced destruction and violence on a planetary scale as a result of cosmic events.

Wearing the crown of Venus, the Angel of Peace creates a bridge to this ancient story. Plasma discharge flows from her crown to electrically sculpt and scar the entire surface of Mars, illuminated in the distinct and clear scalloped detail of the Olympus Mons Caldera.

The current scientific interpretation of Olympus Mons is that of a shield volcano, although it matches none of the characteristics of the shield volcanoes known on Earth. Rising above the volcanic landscape (transcending old-paradigm understanding as well as the destruction symbolized by the volcano's eruption), the Angel of Peace holds in her hands a white pigeon- an apt symbol for peace in the modern urban environment.

## Black Angel of ABundance Relieving Famine

The idea that there are limited resources, or finite supplies of energy (whether on Earth or beyond) is due to a lack of true understanding. The Universe is 99% plasma. It is electrical in nature and is made up of an infinitely available energy. This energy is the source and substance of all matter. Once humanity learns how to stop burning fossil fuels, competing for resources and how to source free energy from the Electric Universe, there may be no more famine, no lack.

The Angel of Abundance hovers over a parched and cracked desert landscape, offering the infinite source of sustaining energy to reawaken the true awareness of the life force. In her hands, upper atmospheric sprites flash, translating cosmic energy to Earth. Helical circuits and bead lightning constitute the birthplace of stars in the cosmos.

The Angel's crown is a crop circle, symbolizing the cosmic infinitude of life. The world-wide crop circle phenomenon presents information in the form of mathematical codes and geometrical patterns, while also infusing this information into food source crops, sharing galactic intelligence with humanity on a sub-cellular level.





### Green Angel of Rebirth Transcending Death

This piece recognizes humanity's use of nuclear power as fundamentally destructive (as evidenced by the nuclear devastation of Chernobyl and Fukushima). The current hypothesis of gravitational cosmology regards our Sun (and all stars) as thermonuclear reactors. The Electric Universe offers a transcendent understanding of stars as electrodynamic phenomena, redefining our concept of energy and leaving behind the old-paradigm nuclear model.

The Angel of Rebirth rises above a nuclear explosion, beneath which the skull of a baby glows amongst the masses of the dead. Above the mushroom cloud, an aurora shimmers (a subtle reference to Kristian Birkeland's theory that the Aurora is due to 'charged particle beams' from the Sun, which has only recently been confirmed).

The Angel offers up an egg, the symbol of life and fertility, within which a human fetus awaits genesis, signifying the birth of a new consciousness. From the Angel's crown, a chrysanthemum blooms. This flower is symbolic of death and grief in many countries such as Japan, Korea and China, as well as in Europe, but it is generally regarded as positive and cheerful throughout most of the United States. While the chrysanthemum serves as a reminder of new life emerging from death and decay, it also suggests that what is good for some may bring suffering for others.

Our quest is to envision the concept of an apocalypse, not as the destruction or annihilation of the world, but as an awakening that will enable the creation of a liberated new world. While there is often chaos before creation, death before rebirth (the Italian Renaissance was preceded by rampant wars and plagues), it is in seeing the greater picture as a whole that these forces can be better understood. Catastrophic influences exist at every scale- from the microcosmic, to the macrocosmic planetary and galactic scales. Destructive urges within humanity exist to be reconciled as expressions of collective unconscious energy, understood as symbolic acts of recreating past events, in order that they may be healed and transformed. By focusing on the transcendent opposites of these archetypal forces, we call forth the inner light to cast its resplendent rays into the shadows and awaken the sleeper.

The end of a time does not signify the end of life, only the beginning of a new era yet to come. If one meditates upon the paradox and seeming contradictions held within these compositions, an illuminating beam of gnosis may emerge from the innermost self. This heightened awareness ceases to define existence through distinctions of polarity, but instead recognizes an interconnectedness and unity underlying all life. Layers of metaphorical meaning await our inquiry, for these four paintings tell numerous stories which overlay many interpretations (mythic, religious, scientific, astronomical, cosmological, etc.) as they offer many points of entry along the journey to Truth.

Original Oil Paintings David Heskin & Aloria Weaver Painted in Barcelona, Spain 2012 Our quest is to envision the concept of an apocalypse, not as the destruction or annihilation of the world, but as an awakening that will enable the creation of a liberated new world.

Aloria Weaver & David Heskin Co-founders of Art Spirit Now and Dreaming Co:nexus

Aloria Weaver: aloriaweaver.com

David Heskin: davidheskin.com

Dreaming Co:nexus, Healing Arts Collaboratory: <u>dreamingconex.us</u>

Art Spirit Now, Cultural Arts Organization: <u>artspiritnow.org</u>



#### ALORIA & DAVID:

The Meeting of Art & Science | EU 2013

# SCIENCE TO SAGE ADVERTISE

#### EXPANSION OF PROGRESSIVE IDEAS

Rates/Dates February March April May/June July August September October November December/January

Adverting Rate Full Page 8 1/2 X 11 - \$250. 1/2 Page is half of that...tall or sideways! - \$100

#### **Ad or E-Zine Creations**

@ science to sage design www.sciencetosagedesign.com <a href="mailto:sciencetosage@gmail.com">sciencetosage@gmail.com</a>

<u>www.sciencetosagemagazine.com</u>



#### SUBSCRIBE TO PROGRESSIVE IDEAS



Kevolution





### SCIENCE TO SAGE

e – magazine

<u>www.sciencetosage.com</u>

- 1. All is Light
- 2. Electric Bodies
- 3. Story
- 4. Water Revolution

- 5. Entangled Web
- 6. Mystics & Women of the Divine
- 7. Cosmic Gateway
- 8. Fractals Consciousness
- 9. Window into Your World
- **10.Venus Awakening**
- 11.The Heart & The Mind
- **12.Communications**
- 13. Science of Sound
- 14. Harmonic Evolution
- 15. Healing with Hay House
- 16. Light & Illumination
- 17. Origins?
- 18. Cycles & Spin
- **19. An Electric Universe?**
- 20. The One & the Many
- 21. Earth