

RADIANT HEART: THE SOURCE OF IMMUNE IDENTITY?

I heard this story once when I was young: A heart surgeon happened to put his finger directly on the sino-atrial firing node of the heart, and burned it! Whether or not this is a true story, it sets one to thinking about all the religious metaphors of a heart being on fire — a sacred flaming heart. Most truly long lived religious metaphors have a deep grain of truth.

Why is it that many cultures have poetically recognized that our biological “reason to be” or “soul-purpose” radiates directly from the heart, yet medically we have failed to recognize this? Probably because we have had no mechanism to understand the process by which this information of cellular identity radiates directly into the body through the heart.

Now with some data in hand, it appears quite clear that the heart does indeed take on a musical or sonic pressure geometry very akin to what we might think of as a coherent flame. This event is measurable on the spectrum analyzer when someone who literally “knows how to love” does intentionally send just that feeling.

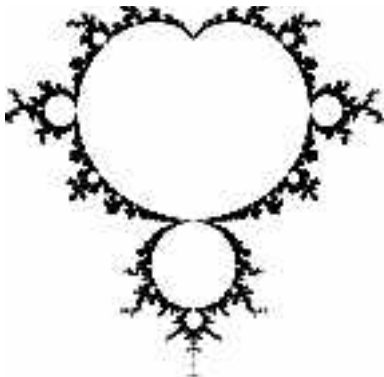
So, let us review what we now apparently know:

1. The heart rings a longer and longer low frequency electrical (EKG) resonance cascade of music-like overtones when emotion sweeps the body.

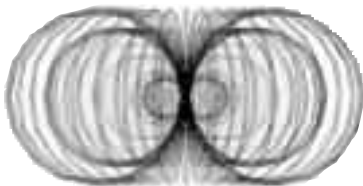
2. Logically, these electrical pressure waves correspond to a series of phonon or sound waves moving through the piezo-electric liquid crystal-like muscle and nerve plexi around the heart.

In this regard we should examine the description of the shapes of the electrical origin of the heart’s beat as published in the book *When Time Breaks Down* by Arthur T. Winfree. In summary, the technical data there suggests that the shape of the electrical wave which converges upon the heart to trigger firing is essentially toroidal, or donut shaped. Further, the way those donuts of voltage or electrical pressure converge around the heart is a fractal or concentric nest of one donut inside the other.

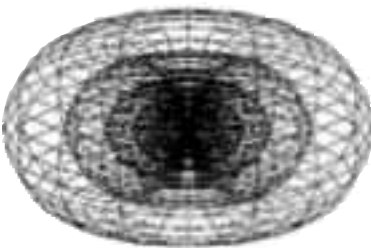
The relative size of these toroidal fields relates to the relative wave lengths contained in the EKG. Thus, the heart muscle’s ability to relax into resonance around a central focus corresponds to its ability to ring out, literally, the further extensions of the harmonic series which surrounds its



Fractal Heart pattern



Nested “toroidal rotors.”



firing. In other words, the heart is essentially able to download a broader frequency bandwidth of harmonic instructions when it fires in the condition of relaxed but centered or “phase-locked” resonance.

The instructions arrive from the high frequency bandwidth electrical pressure or literally “fire” which converges on the heart causing it to beat. Coherent emotion (love?) permits the greater content of these harmonic instructions — or we might even say “ingredients to identity” — to be downloaded or “demodulated” or “impedance coupled” or “spun out” from the long wave into the short. The shape which idealizes this “translation of vorticity” spin-out or unpacking from short wave to long, is the golden mean spiral. When this path which permits the circle to talk to the line (matter to energy) goes two ways at once, it looks like the fractal image of the heart itself!

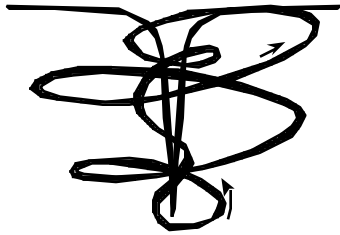
The low frequency sonics program the immune system by projecting on the thymus as if onto the walls of a cave; the pericardium takes the shape of Osiris’ hat, the “cave of the heart.”

Let us remember that the name in the science of sound for a sonic pattern which permits all frequency phases to lock into one embrace is called “cardioid”, and it is heart shaped.

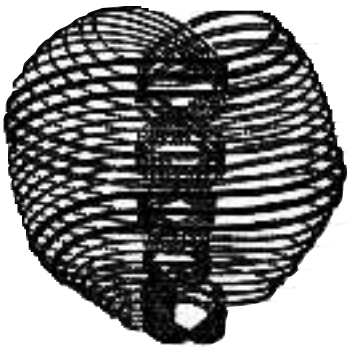
From a psychological perspective, it is well known among good counselors that one of the most important elements which permit a person to radiate intention, integrity and direction in their lives is the conscious knowledge of one’s “soul purpose” or “mission statement.” In a sense, no directions radiate to the immune system from the heart unless there is a conscious link up to the core of one’s being.

From the viewpoint of information science we can understand the principles of this umbilical connection to “oneness” from the mechanism which makes a hologram, at every point, information complete. In terms of optical coherence, taking a bite out of a hologram requires swallowing the whole thing. What this means is that each little light node or bubble in the hologram, must be in complete phase, or wave spacing discipline, with respect to the whole. In this way each little node or vortex point is a complete information cascade or confluence of waves to the whole. Each one is a perfect infinite harmonic series, phase locked in a “multiply connected topology” with the whole picture. The result is that anywhere in the hologram where there is a bright node or focus, there is, by definition, a wave in “sink/synch” with the entire image. Remember, matter is just a hologram with a weight problem.

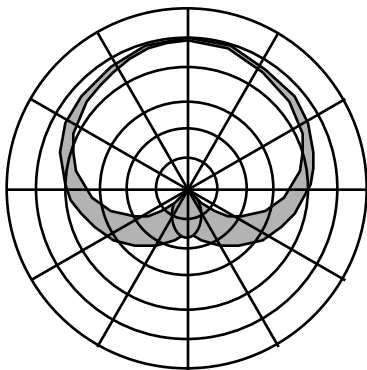
If we acknowledge that consciousness is the attractive drawstring which radiates like a cascade through the embedded frequencies — “a fractal attractor” — then, by the above metaphor, the very existence of focus is evidence of pure intention. That is, a light vortex or foci cannot stand as wave, unless its inertia is coupled with the All.



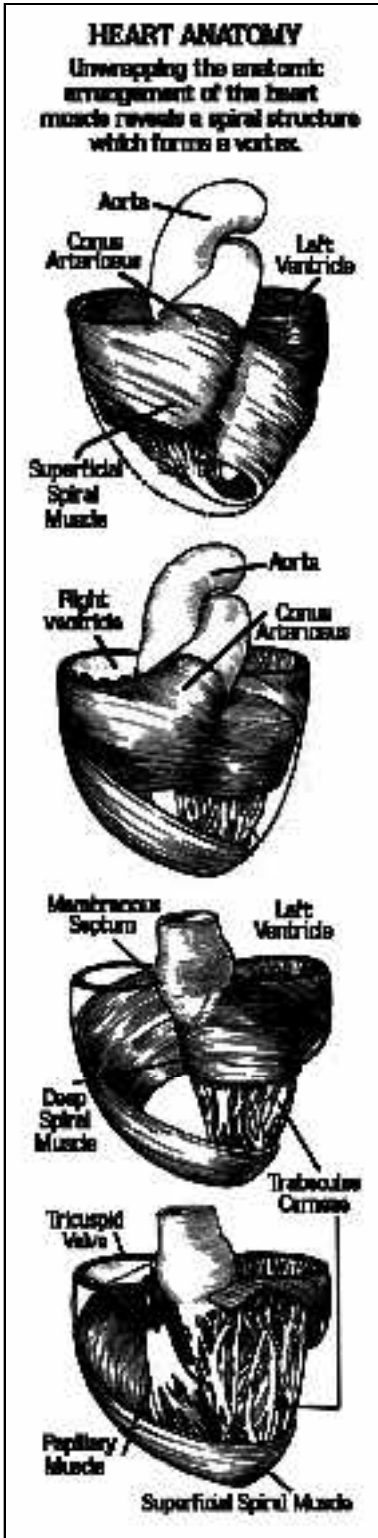
View of a whirlpool’s flowing circuit.



The fractal image of the heart itself.



The heart-shaped cardioid



So, then if we look in the body where the greatest amount of electrical focus or fire can stand as wave at once, we arrive at the heart. This is because the geometry of the heart muscle contains all the symmetry or mirror sharing between spins, which is possible. Specifically, the seven discrete layers of heart muscle are arranged in exactly the spin angles of the seven arrows of spin of the tetrahedra.

Notice the weather vane spiral strip off the donut torus shape at the center of the heart. Since all the spins about the heart focus here, this "element" or essential ingredient to symmetry would know immediately how its tilt or axis or phase compared to all incoming donut shaped pressure waves. This most dense center of the heart, would then cast shadows in sound onto the wall of the pericardium, the cave of the heart. This is the origin of the sacred alphabet itself: the ingredients of symmetry or sharing. Hebrew contains traces of the recollection of this language of light. The shadows of this flame letter, indexed in the (heart's) tetrahedron, suggests the ancient sacred alphabet. This is true in the visual shape of the letters, and in the sonic spectrum analysis of the sound of the letters, creating their shape.

The umbrella like screen for this projector is the thymus around the heart, the site where immune instructions are translated.

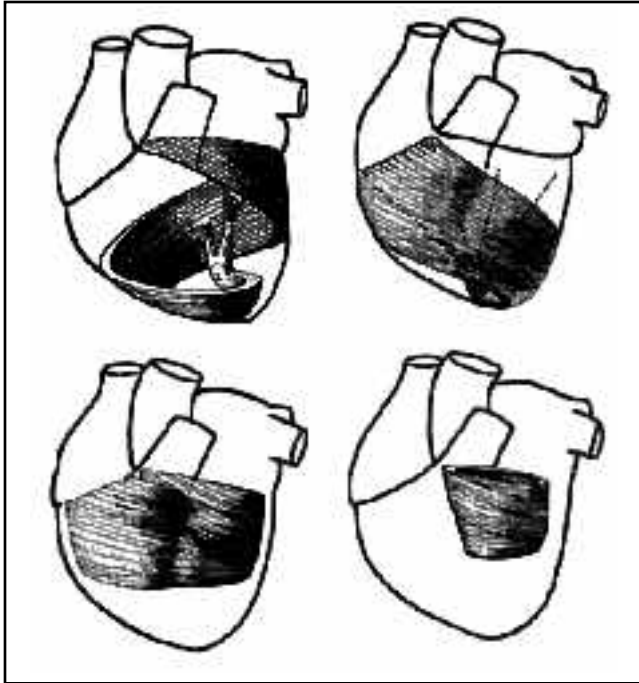
Here we beat "mea culpa," and take response-ability. The thymus uses these sonic shadows on the wall of the cave to know which wave length ingredients to crochet into cellular identity. This is because only phase or wave sharing coherence makes cell membranes possible. Membranes are libraries of which turns of fold, or shapes of touch, can be shared. Membrane for wave is universe's only mnemonic device. This alphabet of symmetry is the only touch permission to get survival spin onto soap bubbles.

The point is to understand that concentricity of focus, literally the convergence of electrical and sonic pressure (all forms of pressure are one) we call FLAME is exemplified by the muscular and toroidal electrical structure of the heart itself. If the orderliness of flame grows there, then radiance to the immune system of the body (or bodies) around unfolds like a flower.

Again, in terms of the hologram, information theory would tell us that wherever the pattern essences for building bodies come from, they must be information dense, that is closely packed. The body building harmonic ingredients, which radiate from the glands at the Sentic long waves of E-motion, pivot at the heart. Here the fire requires a hook up to the collective heart. Informationally, we might think of this as a survival critical information umbilicus to the soul. Getting this wiring connected without shorts or interference is called ecstatic process. This puts high frequency ordering we notice as a twinkle in the eye into the bodies membranes. Sometimes tears pre-

cede access to one's soul purpose and mission statement. Coherence is the cook-book of the immune system. When we sing "Don't Break my Pretty Balloon" from the heart, we mean don't burst the bubble which inner light has woven to nest memory.

High frequency ordering, or information density, is what the living cell does. We turn food's long wave, through a caduceus massaged envelope of steps in metabolism, into the information rich ultraviolet



Four of seven spiral heart muscles.

blue fire short wave light which drives cellular metabolism. High quality ultraviolet light choreographs cell replication. This "blue light" is the cell's Eros, which flames measurably at moment of DNA braid cell division. Orderly collecting of the cell's blue fire into something which vectors out beyond cells into glands, bodies, and planets is done with the massage of attention on the snake charmed. This is variously called foreplay, tantra, or kundalini.

If we understand the principles of Upledger's "Sacro-Cranial Pulse," we see that this pumping of sweet gathered high frequency blue fire up the spine is accomplished when the heart and gland sounds find a phase ordered way to massage that spinal column.

The arrival of these the bodies gathered best nutrients called to order at the upper brain is ecstasy. Orderly sound columnates the nerve muscle liquids toward conductive crystal and gently

massages the glands of their secretion of psychoactive hormones. This softens the hardened heart. The heart sounds set the beat to start the sonic superconduction in the brain ventricles, per Bentov's accelerometric data appendix to *Stalking the Wild Pendulum*. The precipitation of coherent sonic horns in the ventricles of the brain, from the juices of gathered Eros, are mythic in the use of the horn to seed fields in Steiner and elsewhere in legend. Gives new meaning to our word "horny."

Lightning is the metaphor for this unpacking of spin into the body. Lightning spun the primal soup protein to encourage the experiment in sharing we call symmetry. When those proteins found a new axis of symmetry to spin around, we called that entrance into the next dimension of turning "genetic material." It was a new information context in which to nest recursion, or feeding back of the feeding back. Spin is always the activator of symmetry, or persuasion to share.

The arena for maximum entry of spin or lightening into the body is the heart. Only here can the flame of self-knowing be fanned enough, like pressures nesting, to embed oneness from separateness.

Again we see that all bonding is phase locking: waves sharing.

Another part of our model of coherence as ecstatic suggests that genetic material in general, or DNA particularly, takes on added information from coherent emotion by braiding. This suggests specifically that active site alignment, and thus switching of DNA's power points, is achieved mechanically just the way you might braid the braid on a lover's pony tail. If there is an orderly ratio (or phase coherence) between the inner weave angle of the string and the weave angle on the rope it is part of, then you could predict who in the sequence of the short braid string, will each time be adjacent to the same upturn or downturn in the longest wave braid.

The result would be that the shape or geometry of the long wave, (or Sentic emotion or EKG's extra low frequencies,) could become the programming alphabet for maximum leverage of genetic material. Instead of having to switch on one codon array among hundreds of thousands by lining it up to an electrically active context, a long wave coherence waveform could choreograph, like surfers on an ocean swell, the switching on or off of an entire array of points all at once. We are reminded, by Jeremy Campbell's Grammatical Man: Information, Entropy, Language and Life, that context dependency, or braid geometry, is the information theory mechanism for high signal to noise ratio in DNA.

HEART SONICS: THE LANGUAGE OF THE HEART'S BEAT

The timing of all biological engines in the body, originates with the heartbeat. Omni Magazine's Aug. 89 "Womb With a View" article describes playing heart sounds to fetal infants producing dramatic developmental improvement. In *Stalking the Wild Pendulum*, Bentov documents the dramatic benefits of intentional relaxation specifically arise when the heart sounds phase lock (or entrain) the liquids in the brain, creating a kind of musical choreographer to the mechanics of ecstasy.

In *Fields of Form* by Lawrence Edwards, the shape of the heart muscle is shown to be seven spiral layers exactly tilted according to the symmetries of the tetrahedron. The author goes on to describe seven discrete sonic components of the heart sound specifically created by that structure.

In *When Time Breaks Down : On the Origins of Cardiac Arrhythmia* by Arthur Winfree, the electrical origins of the heartbeat is elaborately traced to a toroidal donut shaped rotor which rolls in to fire the muscle. The origins of this seven color donut electrical pressure wave which fires the heart and originates much of the harmonic order called health, is illustrated as a nest of donuts, a la the Penrose twister theory.

Clearly we are broaching one of the most profound mysteries of biology here. I would like to suggest what the heart may in fact be accomplishing by its studied skew of the phase angles (or simple wave relations) which moves outward from electrical donut to the sound of the beat. The single cell is a genius for massaging broad spectral resonance into specific UV, RF, and ELF high quality coherence with which to drive metabolism, accomplished in large part perhaps because of the cross harmonic coherence of the dodeca wave guide nature of genetic material.

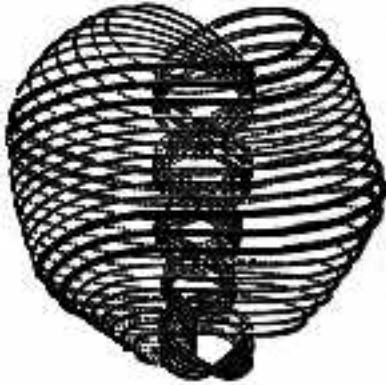
We must bear in mind that it is the low frequency ELF which is the raw material from which the higher frequency protein and gene resonances are built. The heartbeat phonon and emotion's long wave coherence are very low frequency with respect to the cell. Thus, in a bio-energetic sense, the heart beat and emotion's long waves, are the play dough cookie cutters which determine what length tinkertoys the cell will have to play in order to make biology's nest. Essentially, all bond lengths in the cell are harmonic tensors built from available resonances. There is no length in the cell, or anywhere, that is not a wave-length.



The heart beat

Thus a pure ringing heart continuously feeds the cells the necessary even tempered music necessary to weave biology. I suggest that we will increasingly discover the specificity and rigor of this seemingly romantic idea.

We can get some intuition of how the ratio and phase of the heterodyning toroidal electrical waves converging at the node of the heart are translated into sonics. The set of possible phase angles, are literally shadowgrams of our sacred alphabets. Only the symmetries of those tilts of the donut produce a wave which can stand; this is biology's only form of memory. The heart sonics could be a window to the phase alphabet by which harmonic tensors feed and program living biology.



Using the computer, we can then individually edit the harmonic tensors of the sonic components of the heartbeat, re-synthesize the wave envelope, and replay the sound up and down the spectrum on the synthesizer. Using the feedback of the created sonic loop, we test and optimize for the wave which most quickly phase entrains the sympathetic listener. Before long we who thought we were scientists become children listening for a mother's heat of gold.

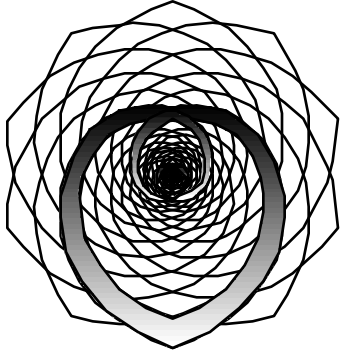
It is amazing how emotional the heart sounds are. A good example is the use of the heartbeat in "Dolphin Dreams" Jonathan Goldman's (Sound Healers) soothing underwater birthing audio tape. Another of the blessings of this recording are the mixing of the heart sounds with spectrally translated envelopes from whale and dolphin sounds. Interspecies communication in the electrical terms of pure emotion?

In summary, the area of study of the heart's harmonics leads us (predictably), to the heart of the matter. Later, sampling the Schumann ELF electrical heartbeat of planet Earth, we shall learn of the choreography of her tectonic nest, and learn to phase lock with her. We are setting up a grid of sampling stations for Earth's low frequency heartbeat, it should be an excellent camera for her emotional outbursts (earthquakes, etc.). Ultimately as we choreograph our global nervous system (media/events) to hers, we shall need and use this data and feedback, to measure our success in collectively incarnating into her body.

The set of phase locked sound/symmetry relations which constitute the sacred alphabet, may literally be AN ALPHABET OF THE HEART, in that the structure & function of the heart electrically and mechanically literally expresses those sacred sounds into the body (thereby in effect programming cellular, glandular, and immune functions). "As a man (or woman) thinks in his heart... so is he..."

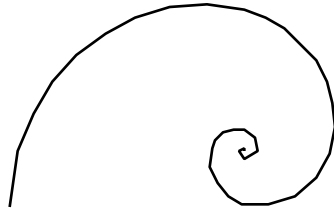
Wherever the universal golden spiral of light waves "meet to beat"

THE FRACTAL HEART



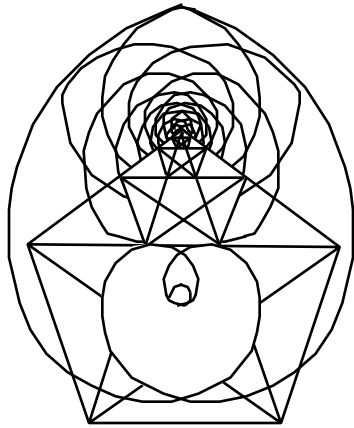
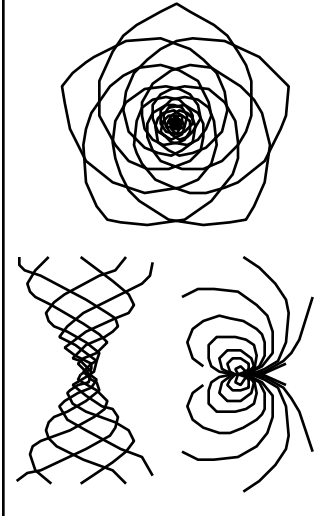
Our local focus is called a human heart. an image of the Grail cup... 2 Golden Mean Spirals, a fractal of the heart, unfolding with wings...

Golden Mean Spiral (top view of same 3D form)...

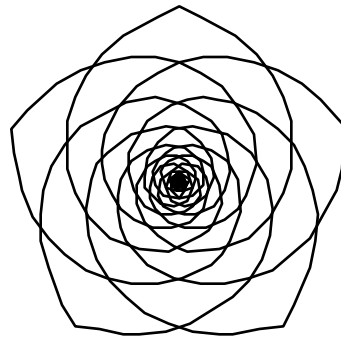
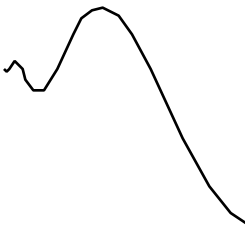


which when spun around, creates the recursive/fractal from all perspectives:

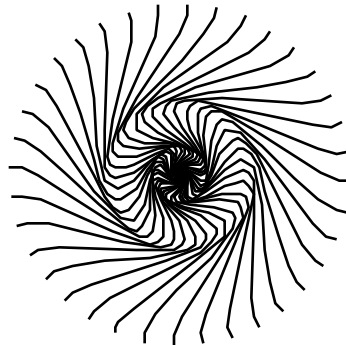
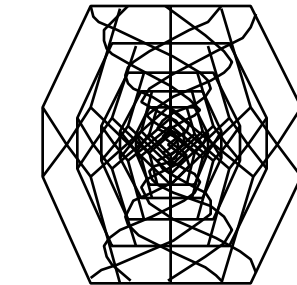
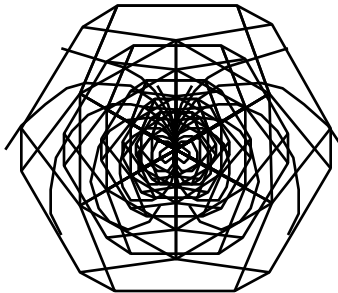
Here are different perspective views of a SINGLE 3D FORM.



The golden mean spiral seen from above, traces nested pentagrams on a plane. (DNA from above, cf. section: Braiding DNA) However in 3D, that spiral receded into the cone which connects the 12 faces of the infinite geometry of dodeca/icosahedra, fractals... one inside the other (Merkabbah). That 3D spiral seen from the side is a perfect damped wave/caduceus:



The above caduceus serpentine form (from the top view) nests the pentagrams in the dodecahedra, nesting DNA, Earthgrid, and 12-faced zodiac as Merkabbah...



Grail Cup. (DNA as chalice)... light receiving cup...

becomes a torus donut of charge, or fundamental particle.

The shape of the ANU or fundamental particle from Theosophy's Leadbeater and Besant, later confirmed by contemporary physicist Phillips in England in "Psi Perception of Quarks"

(3 Anu per Quark). Also topologically described by Babbitt as "The Heart of the Sun."

The spiral on the donut creates the RELATIONSHIP between dimensions which biology speaks to... "the Heart of the Matter."

Finding that a toroidal rotor donut shaped rotor triggers the heart-beat is like finding biology's information path to Roger Penrose: "Twister Theory" slip-knots into donuts. As this donut rotates and tilts on its seven spin axes, it "fires," creating and electrifying the seven layers of heart muscle.

Seven color or region donut or toroidal rotor which electrifies the heart, as depicted in *When Time Breaks Down* by Arthur Winfree..

Seven helically arranged layers of heart muscle tilted exactly to catch the 7 symmetry spins of the tetrahedron (from "Field of Form"). The heart in this sense, captures all the possible "rays" of light, and contains the whole spectrum. Every color has space in the heart.

Later work suggests to us that our primary colors themselves are nothing more than the tilt of the single photon donut.. again defined by the tetra spins, see below.

This is to say simply, that there could never have been anything to be called "color," except the 3D (3 pair primaries) symmetry of the photon. Describing color as a simple 2D wavelength, is as absurd as trying to truly visualize a flat 2D donut photon. Of course a donut photon will cast shadows, max width to min in ratio 1 to 2, just like the ratio of the shortest color "wavelength" (blue) to the longest (red). (approx 440 to 880 angstroms).

HEART INTELLIGENCE & DNA PROGRAMMING: A PILOT RESEARCH REPORT

At the facilities of the Institute of HeartMath,
Boulder Creek, CA August, 1992

Introduction

It is well known that a person's emotional state has a powerful effect on their health. There is an abundance of documentation linking negative emotion to hormonal secretions that increase the aging process, add to the stress placed on the immune system and ultimately manifest in disease. Duke University researchers recently discovered that teenagers who have tendencies towards anger and hostility have a ten times greater chance of dying from cardiac arrest as adults. The University of London School of Medicine recently released a thirty-year study which showed that negative reactions to stress are more destructive to health than is cigarette smoking.

While the impact of negative emotions on health has been well documented, the impact of positive emotions on health has received little attention. One such study carried out at Harvard University showed that individuals who experience "care" had higher levels of the antibody salivary IgA which is known to enhance the immune response.

This article summarizes phase one of a joint research project I have undertaken with the Institute of HeartMath. The purpose of this project is to demonstrate the electrical and sonic links between cardiac electricities, mental processes, emotion, brain electricities and DNA programming. We will also demonstrate that the frequency content of the QRS complex can be consciously affected.

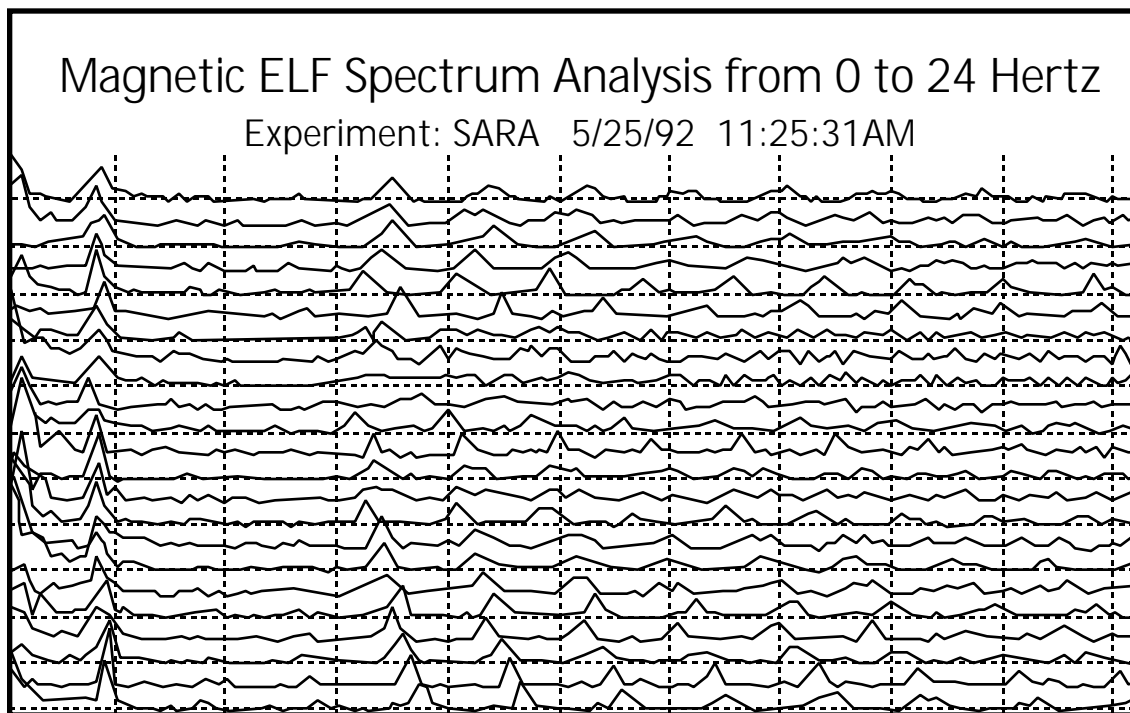
This phase of the research focused primarily on the cardiac electricities, as the correlation between EEG (brain waves) coherence and health benefits and the sonic resonance between the heart and the brain has already been confirmed. It is our intention to show that the heart electricities contain an encoded intelligence which is ultimately responsible for higher brain functions. We believe that the heart acts as a transformer allowing two-way communication between scale or dimensions of organizational intelligence and is the doorway to true intuition and DNA programming. The spectrum analysis graphs shown in this paper indicate that it is possible to consciously affect the frequency content of your own heart. It is also apparent that when love

is being felt, the ratio between the power spectra peaks of the EKGs is the same ratio as the structure of the DNA.

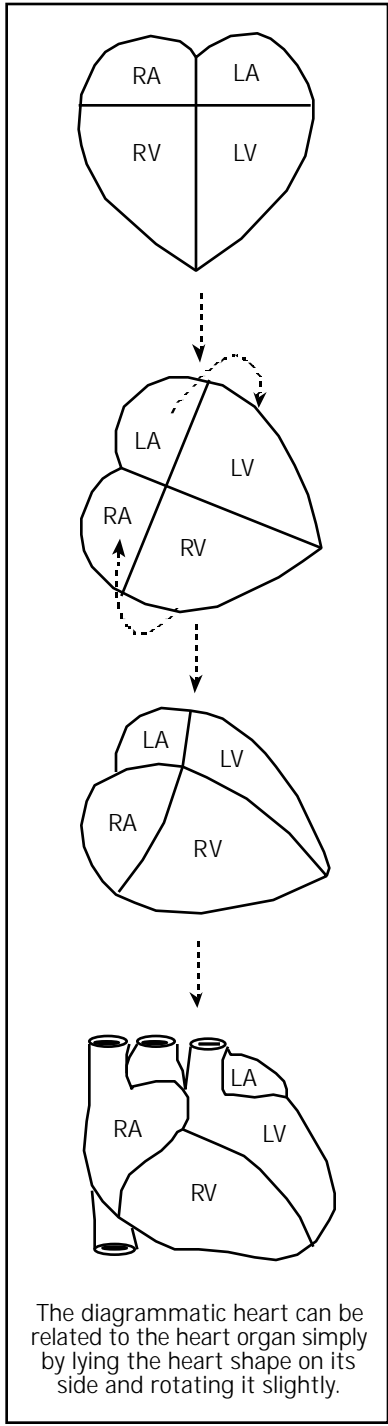
We hope this research will inspire others to investigate the heart and its electricities from a new perspective, as this work especially shows that there is more to learn about both the physical heart and its electrical system. It is clear to us that the heart is a far more complex organ and controls more bodily functions than is currently understood. Some of the conclusions in this article may stretch the imagination. All I ask is that before you take a stand on what you know, consider taking a neutral position and let time prove these findings right or wrong, or better yet, join in the research effort to verify the findings at a deeper level.

What is Coherence?

The term coherence can be used in several contexts. It is often used to define two or more wave forms that are phase-locked together so their energy is constructive. It can also be used to describe a single wave form, describing an ordered or constructive distribution of power content. Ordinary light from incandescent light bulbs is known as incoherent light. Incoherent light moves randomly, with light waves traveling chaotically in all directions. One might think of average human thought as random and incoherent. Conversely, laser or star light is coherent and is highly focused, with all light waves traveling in step,



The gap in harmonic resonance of the EKG between roughly 3 and 7 Hz occurred more often during the day than at night. Interestingly, after seeing the gap, subjects were to some extent able to correct this intentionally.



similar to soldiers marching in step. If the energy produced by an incandescent bulb were to be made coherent, the resulting focused laser-like beam could burn a hole through a steel plate.

One can extend the above analogy to the production of coherent thought or cardiac electricity as shown by increased brain wave and heart electricity coherence. There is evidence that increased brain wave coherence is associated with psychic events such as psychokinesis and remote viewing. The key principle is that coherent consciousness or focus is the key to communication between dimensions or across scales and can go beyond ordinary waking consciousness. Coherent consciousness is also the primary component in self-stress reduction and its attendant benefits on immune system health. Going from incoherent random mental and emotional energy expenditures to coherent energy is as powerful a transition as the difference between incandescent light and the brilliant energy of a laser beam. The heart electricities have been shown to become coherent when an individual is highly focused on loving or appreciating someone or something.

Heart electricity is the dominant force in the human system and will cause the brain and its sub-centers to phase-lock with it when it is radiating coherent energy patterns. The heart is the doorway to higher dimensional communication and understanding. Loving causes the coherence and ratio necessary to send energy up or down the harmonic series from the higher organizational dimensions to the DNA. It appears that through conscious, focused loving and caring it is possible to reprogram and empower the DNA to program the individual cells to work in harmony with the whole system.

Background

My first attempt at confirming the harmonic connection between the heart electricities and the ratios necessary to communicate with and empower the DNA began several years ago in the sleep research lab at Millard Fillmore Hospital. With the aid of Dr. Bruce Middendorf, we were able to obtain several interesting plots produced by a young yogi who said he was "sending love to the people in China." We did get some amazing harmonic series in the spectral content of the frequency signature of his EKG. I was convinced that something surprisingly musical and ordered was happening to the electrical resonance of the heart at peak emotional moments, but we had only several hours of data from one subject and this orderly resonance cascade had shown up only a few times that afternoon.

After several years, Rollin McCraty and associates at the Institute of HeartMath happened upon my manuscript, "Alphabet of the Heart." In May, 1992, I visited the institute for a week of data-taking and analysis. We took many hours of digitally-sampled EKG data from a dozen of their staff at random times, day and night. They would relax

and listen to the music "Heart Zones" which they have designed to reduce stress. This music is specifically designed to facilitate the activation or contact with one's own heart frequencies. It seems to aid in the attunement of the brain to the center frequency of the heart electricities which balances the mental and emotional aspects of one's nature. We also ran tests without the music and this showed that once one had trained oneself in this process, the music was not necessary to achieve attunement to the heart frequency. I have no doubt that the music does facilitate this process. This research was conducted in their new 32-channel sound studio which is electronically networked to their research facility. (Doc Lew Childre's next project with the Institute is the development of tonal patterns that appear to harmonically link with the DNA to enhance T-cell strength in people with AIDS and other immune disorders.)

At times, the evidence of coherence in the results was so incredible that visiting physicist Nick Herbert needed to see the hardware inputs to confirm that the equipment wasn't going haywire. In our research, each plot on the spectral landscape represents the averaging of the harmonic content or spectrum analysis of approximately 5.5 seconds of EKG, which represents several cardiac cycles. The harmonic resonances (shown in the graphs which follow) would not be possible with this length of averaging time if they were not stable and phase-locked. We would sample during another series of heartbeats, and plot that power spectra to create a landscape over time of the frequency signature. When long valleys appeared in the landscape, we suspected the heart was up to something orderly. Most of the amplitude in the harmonic ordering was in the 0 to 40 hertz band width. (From other studies, we know it extends into several hundred Hz, but the EKG machine we used only had a band width of 45 Hz.) I have concluded that the harmonic ordering visible in the EKG power spectra is resonance coherence. This conclusion is due to the long length of the averaging time of the data.

The Institute of HeartMath

The staff at the Institute of HeartMath, which was founded by Doc Lew Childre, has many years' experience in helping people access the self-regenerating energy of heart attunement. They provide seminars, produce music, and publish books that give specific steps to help people manage and focus their own mental and emotional energies through heart intelligence for more efficient living. In my experience, they have an amazing capacity to transform any environment with the field of feeling they radiate from the heart. This is particularly true of situations where stress is transformed by the simple decision to appreciate from the heart at a moment when anger or resentment would otherwise have depleted one's energy and health.

They are a close-knit organization where the feeling of family is strong. Many of them have worked together for 20 years, and coherent emotion has fed their cells and the earth around them. They often speak of the way negative emotions produce destructive hormones in the body and how the ability to orchestrate the geometry of one's own emotions may be the most empowered lesson for self and planetary transformation we can learn. I was intrigued by the level of self-management, harmony, and creativity they all seem to embody.

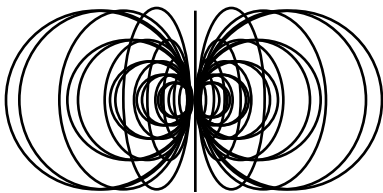
From the coherence I found in the EKG readings of the dozen people I tested, I was curious about the process they went through in their development. I learned in interviews with several of them that their system of HeartMath can teach anyone how to access their own heart intelligence. They all went through a gradual transformational process in which their physical, mental and emotional structures changed and became more efficient. They said it takes practice but the changes are real and happen faster than one might think if you sincerely try to attune to the heart and follow its direction. They described it as making moment-to-moment choices from an objective perspective that has more width of intelligence than normal mind-centered thinking.

Many cultures have discovered that the biological "reason to be" or "soul-purpose" radiates directly from the heart, yet medically we have failed to discover this. It is probably because we have had no mechanism to understand the process by which the information of cellular identity radiates directly into the body through the heart. Now, with some data in hand, it appears quite clear that the heart does indeed take on a musical or sonic pressure geometry very akin to what we might think of as a coherent energy source. This event is measurable on the spectrum analyzer replicably when someone who knows "how to love" intentionally does just that.

From a psychological perspective, it is well known that one of the most important elements which permits a person to radiate intention, integrity and direction in their lives is the conscious knowledge of one's "soul purpose" or "mission." In a sense, no directions radiate to the DNA and immune system from the heart unless there is a conscious link-up to the core of one's being.

The Energy Field Surrounding the Heart

To further understand these ideas, it would be useful to examine the description of the shapes of the electrical field of the heart beat as published in the book *When Time Breaks Down*, by Arthur T. Winfree, Professor in the Department of Ecology and Evolutionary Biology and the Program in Applied Mathematics at the University of Arizona. In summary, the technical data shows that the shape of the electrical



The toroidal, or donut-shaped, wave fields that surround the heart when it fires. These fields are fractal — fields within fields radiating out from the heart.

wave or field around the heart when it fires is essentially toroidal, or donut shaped. Furthermore, the way those donuts of voltage or electrical pressure form around the heart is a fractal (see page 5) or concentric nest of one donut inside the other. This can be viewed as worlds within worlds, each larger field containing all the inner fields within it. Although not yet

The toroidal, or donut-shaped, wave fields that surround the heart when it fires. These fields are fractal — fields within fields radiating out from the heart.

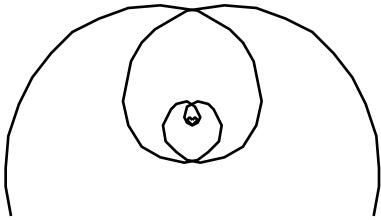
It is probable that the relative size of these toroidal fields relates to the relative wave lengths contained in the EKG. Thus, the heart muscle's ability to phase-lock into resonance around a central focus would correspond to its ability literally to ring out further up and down the harmonic series. In other words, the heart is essentially able to download a broader frequency band width of harmonic instructions when it fires in the condition of relaxed but centered or "phase-locked" resonance. Coherent emotion (love?) permits a greater content of these harmonic instructions, to be downloaded or "demodulated" or "impedance coupled" from the long wave into the short. The shape which idealizes this "translation of vorticity" spinout, or unpacking from short wave to long, is the Golden Mean spiral. When this path, which permits the circle to talk to the line (matter to energy), goes two ways at once, it looks like the fractal image of the heart itself!

The Golden Mean spirals traveling in opposite directions create the image of the heart.

The principle of interference among waves is that order or constructive interference self-replicates, and disorder or destructive interference self-destructs.

From the viewpoint of information science, we can understand the principles of this umbilical connection to "singularity", from the mechanism which makes a hologram at every point, information complete. In terms of optical coherence, taking a bite out of a hologram requires swallowing the whole thing. What this means is that each little light node or bubble in the hologram must be in complete phase or wave spacing discipline with respect to the whole. In this way each node or vortex point contains complete information. Each one is a perfect infinite harmonic series, phase-locked in a "multiply-connected topology" with the whole picture. The result is that anywhere in the hologram where there is a bright node or focus, there is by definition, a wave in "sync" with the entire image. Remember, matter is just a hologram with a weight problem.

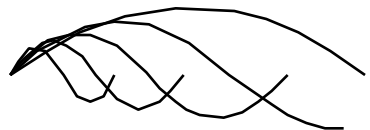
Consider consciousness as the attractive drawstring which radiates like a cascade through the embedded frequencies: "a fractal attractor."



The Golden Mean spirals traveling in opposite directions create the image of the heart.



A visual representation of Constructive waves, where the long and shorter waves are all in phase.



Destructive waves — here the long and short waves are out of phase, causing destructive interference. These waves will not travel down the harmonic series.

Then by the above metaphor, the very existence of focus is evidence of pure intention. That is, a light vortex or foci cannot stand as wave, unless its inertia is coupled with the all. By achieving focus, we already have achieved pure intention, which is the only real limit to interaction with density. Purity is what limits the amperage or current flow through our mental and emotional waveguide. Focus permits only coherence. This is why prisms create rainbows. Light bends around the focus point to permit only the spin tilt angles of the photon which are sharable (tetrahedra have a maximum of seven spins) to pass.

Another way of looking at this is that intelligence or self-awareness is the part of ourselves that can enter into singularity, or the point of balance, between dimensions of awareness and survive to enter into a higher or lower dimension of awareness. It is the aspect of us that keeps drawing us back to balance. It is what keeps us on track, until we can wake up enough to enter into the next level of evolution or awareness of ourself and how our energy system works. Once we awaken to the next level we then start to work on reaching the next more efficient level of awareness. It becomes easier as we evolve through the fractal series of dimensions of awareness.

Heart Geometry

If we look in the body where the greatest amount of electrical focus can stand as a wave, we arrive at the heart. This is because the geometry of the heart muscle contains all the symmetry or mirror sharing between spins. Specifically, the seven discreet layers of heart muscle are arranged in exactly the spin angles of the seven arrows of spin of the tetrahedra (the seven arrows of the heart.) Spin is always the activator of symmetry, or persuasion to share. Unfolding spin into usable wave lengths is what the Golden Mean fractal heart shape is all about. The transformer for maximum entry of spin or energy into the body is the heart. There is a weathervane-like spiral strip off the donut torus shape at the center of the heart. Since all the spins about the heart focus here, this "element" or essential ingredient to symmetry would know immediately the heart axis or phase as compared to the donut-shaped pressure waves surrounding it. This densest center of the heart would then affect the sound of the heart projected onto the wall of the pericardium, the cave surrounding the heart. This part of the heart affects the phase of the sonic energy that vibrates both the pericardium and thymus.

The umbrella-like screen for this projector is the thymus located around the heart, the site where immune instructions are translated. The thymus uses these sonic shadows on the wall of the cave to know which wave length ingredients to crochet into cellular identity. This is because only phase or wave-sharing coherence makes cell membranes