Coherent Power Generation

by

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Energy is everywhere and in many forms. Some forms are organized while other forms seem to be chaotic and totally random. This paper deals with the natural conversion of random energy to organized energy wherein the possible explanation for this process is presented as a quantum solution involving phase and group waves orthogonal to each other.

The attraction between two parallel electrical currents can be generalized to postulate the following: *Quantum particles which are traveling in parallel paths will tend to interact. Further, if the speed of a particle is changed, it will affect the speed of a particle in a parallel path causing the affected particle to either speed up or slow down so as to come into alignment along the phase wave vector, which is orthogonal to the direction of the particle's motional group velocity. Furthermore, if a particle is in motion, it will affect other particles so as to cause them to move in the same direction. Thus, as with parallel electrical currents moving in the same direction, the force between them will always tend to be one of attraction.*

The above postulate describes what I consider to be the basic action of gravity. Since electric charge times the Vector Magnetic Potential **A** vector has the units of momentum, then particle momentum generates a corresponding **A** vector that can act on quantum charge. Further, the process can be represented by suitable quantum wavefunctions.

After pondering at some length if there was a way to prove that gravity had a magnetic energy connection, I had a dream that Nyquist noise was what I was looking for. After some research on the web I found that Nyquist noise had many aspects, not just the thermal component. There is a form of externally induced noise that exists even in a superconductor.

QUOTE: Movement of vortices in superconductors results in an appearance of voltage, and the transport of electrical current is no longer dissipationless. The generated voltage is however not free of fluctuations, i.e. it oscillates around its mean value. These oscillations are called *noise*. Noise is in fact inherent to all conductors of a finite resistance. For example, if one connects a resistor of resistance R and at a temperature T to a sensitive voltmeter, one will observe that there are fluctuations of the measured voltage, with the variance equal to $4k_BTR\Delta f$ (where Δf is the frequency window of the measurement). One does not have to pass any current through the resistor to observe this--although the average voltage is zero there are voltage fluctuations! This phenomenon is called Nyquist noise.--UNQUOTE.

The above quote is from:http://www.phy.hr/~dbabic/vortexnoise.html.

Furthermore, there exists the Quantum Ohm, which is established as an international scientific unit, and as such acts as an impedance which causes an oscillating voltage when a changing magnetic field is passed through a superconductor. I propose that the above noise in a superconductor in the absence of applied current may be caused by electrogravitation.

Noise can normally be considered as random in both location and time. Yet, under certain conditions, particles associated with the noise event can suddenly organize so that the particles are no longer random in time or direction. It is as if a hidden mechanism suddenly begins to orchestrate the movement of all of the random particle motion. This is likely a certain level of energy that is the lowest energy value of a common quantum wavefunction

entanglement: Where the complex conjugate wavevectors begin to synchronize. The sudden formation of a wave near the beach of the ocean is a good example.

Some may argue that the wave is formed up by the rise of the floor of the ocean as the water moves towards the shore and the water moves towards the shore by reason of the moon's gravitational influence. This is not a sufficient explanation. One reason is that waves begin to form at different distances from the shore and not always in the same place. Further, waves are still formed when the tide is going out which means that the water is no longer moving towards the shore via the influence of the moon and yet the wave does move towards the shore. My postulate is that the particles of the water 'noise' are organized to seek the lowest quantum energy state, and using entanglement, the motion is organized to move towards that level, the beach. Finally, the reader has doubtless noticed that the forward progress of the wave seems to be independent of the height. This implies that the forward motion is nearly constant.

I suggest that if electric voltmeter probes were put into the ocean so that a wave could pass between them, (placed parallel to the shoreline) a voltage may appear as the wave passes the probes and the voltage may be a function of how far apart the probes were. This would be along the phase velocity wave crest. The group velocity would be the forward motion of the wave towards the beach. As for light waves, the product of the group velocity and the phase velocity would be the square of the velocity through the ocean medium.

Another natural method for generation of coherent energy may exist in the ambient noise of our atmosphere and also of the Earth. The Great Pyramid at Giza may have been a device which utilized the quantum change of random noise to organized wave action. The excellent book, "The Giza Power plant," by Christopher Dunn (copyright 1998) proposes that the exquisite engineering of the Great Pyramid could have been designed for the purpose of power generation utilizing the ambient field energies.

Unfortunately, some have called this type of thinking "junk science." I consider this to be a superficial judgment after reading not only Christopher Dunn's book, but others such as "Secrets of the Great Pyramid," by Peter Tomkins. I know what the accepted theory is but the evidence is there for those who search in earnest that there exists in the construction of the Great Pyramid a science far beyond what is presently admitted by academia.

The Great Pyramid has suffered the ravages of looters stripping away its outer polished limestone casing as well as the damage to its interior mechanism but there is enough left to boggle the mind when one seriously contemplates the math and science that it took to build such a marvel. We would be hard pressed even today to duplicate it despite the claims of those who insist it was built with copper chisels and wooden mallets.

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Previously I have presented idea of charge multiplied by the **A** vector being momentum and then the converse where in general, momentum generates a corresponding **A** vector that cannot be shielded against and interacts with charge to again create momentum.

Consider now a light beam entering a medium where the velocity of light is lower than it is in free space. It is an accepted fact that the frequency of the light is dependent upon the source and is independent of the medium. Then Plank's expression $E = hf$ states that the quantum energy of the particles of light will remain the same. If we now equate the kinetic energy of the light to the quantum energy $E = hf$, then $hf = (1/2)mv^2$. This implies that m (*field mass*) must increase inversely as the square of the velocity decreases. This has important results for the momentum $p = mv$ where the field mass is increasing as the square of the velocity is decreasing. Thus, momentum related to field mass increases as the velocity decreases. Since wavelength decreases directly with velocity, frequency is thus verified as a constant.

It is herein postulated that the above momentum increase related to the field mass increasing in nonlinear fashion and creating a linear increase of momentum inversely to the decreasing velocity of light can be extended to velocity of sound through the air changing into a slower

medium, or sound through water changing into another medium where the different medium may be the same basic material at different temperatures.

Imagine a hollow tube closed at both ends filled with a gas more dense than air. Now envision that one end of the tube is very hot while the other end is very cold. Now send sound waves through the tube from a transducer. The recoil is going to be greater off the cold end than off the hot end which creates a momentum differential along the axis of the tube pushing the tube in the direction of the cold end. This could be extended to lasers which were constructed to have different mediums of light transport from one end to the other.

I am suggesting that the Caduceus coil as shown on page 4 below may be a form of what I suggest in my postulate above with the added action of incorporating the **A** vector in circulating fashion to interact directly with gravity. It is of further interest that the angle between the adjacent coils is close to 26.5 degrees which matches the vertical slope of the Great pyramid's Grand Gallery and ascending as well as the descending passages.

The Caduceus coil figure is from p. 248 of the book, "Vimana Aircraft of Ancient India & Atlantis," by David Hatcher Childress.

If we consider that the bottom of the coil is hot while the top is much cooler, then the direction of momentum is towards the top of the coil. The circulating particles are moving somewhat parallel to the Earth and therefore interact with the particles in the Earth which are then induced to move in the same direction by the instantaneously transferred **A** vector magnetic potential. If we allow for a 180 degree phase lag between the relative motion of the particles in the coil and the Earth due to inertia, then momentum offset as well as repulsion is possible.

The temperature differential between the top and bottom of the Caduceus coil is necessary to generate a difference in the medium velocity which may be airborne vaporized and ionized Mercury metal plasma.

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The Caduceus, Magic Wand of Mercury, Messenger of the Gods, is an ancient symbol of electromagnetic flight and cosmic energy.

According to Clendenon, the Caduceus is a simplified diagram of a Mercury Vortex Engine.
A. Air is the fright propellant propelled wings
B. Expansion of vortex coils/cooling
C. Compression of vortex coils/heating
1. Liquid metal mercury, the heart of electro-magnetic energy.
2. Mercury boiler
3. Antenna/stator/core
4. Closed circuit serpentine heat exchanger/condenser coils
6. Poisonous mercury vapor reservoir

The Caduceus coil could allow for a force increase over time if a resonant condition of the plasma occurred along the length of the vortex tube wherein the standing wave electrically was at the same wavelength as the physical length of the Caduceus tube. Each cycle would reinforce the next cycle and if means were not employed to dampen the rise of force, the result might be the destruction of the Caduceus coil. Perhaps the coil was made of a ceramic and the ends would have had electrical connections for monitoring the electrical phase and frequency.

Ancient aircraft called Vimana supposedly used the Caduceus to provide lift and were observed to rise and fall as they flew along. This rise and fall may have been the result of the damper control which was bleeding off the energy so as to prevent an explosion of the Caduceus coil due to excessive energy building up.

Christopher Dunn describes the Grand Gallery of the Great Pyramid as an acoustical resonator which could be used to feed energy to the King's Chamber where a special box-shaped granite resonator allowed for energy to couple to Hydrogen Gas so as to power a Maser action which amplified the Hydrogen background radiation from space. The small rectangular tunnels in the North and South face of the Pyramid that go into the King's chamber were theorized by Dunn to transport the microwave energy back up to an orbiting ship that beamed the energy through relay stations in orbit to locations on Earth, having other pyramids, located all over the planet.

Ionized particles acting on each other may be theorized at some energy level to fall into synchronized motion by self-organization and when this occurs, energy begins to build spontaneously from the sympathetic physical motion and the action of the associated standing electrical wave. Granite has a large amount of Silicon Dioxide (quartz) crystal and the Great Pyramid has an abundance of granite in the Grand Gallery and the associated King's chamber.

An impulse device (both electrical and mechanical) working in synchronization with the acoustic and electrical motion of the plasma would tend to build the energy of the standing waves over time. Carefully adjusting the impulse timing would control the field action. It is of interest that the Area 51 Saucer and the Roswell crash saucer supposedly had a vertical pole from the center of the craft to the top which could have been a waveguide for inducing a pulse to the top of the craft where it was coupled from a microwave cavity to the surface across an isolator. The standing wave would travel to the edge of the craft along a variable impedance surface which would act as a variable medium to the electromagnetic energy in the standing wave. The wave is free to move back and forth along the bottom of the craft as no isolator (barrier) exists on the bottom but when returning to the top, the isolator is encountered which

causes nearly total reflection. This causes a doubling of the momentum of the wave as it is reflected from the isolator. This causes lift along the isolator ring. The energy would build without limit if no means to control it were available. Again, the pulse rate could be shifted so as to dampen the energy build. This could be the (A) group wave action while a cross-product action described previously could be the (B) phase wave, the action for deep space faster than light travel.

It is of interest to examine the possibility of the Great Pyramid being a high voltage generator along the lines of a Tesla coil construction. That is examined starting on the next page.

First, the salient data is presented regarding the dimensions of the Great Pyramid.

Base Length: $PBL := 763.62 \cdot ft$ Height: $PH := 485.5 \cdot ft$ $STEPS := 201$

The vertical distance for each step of the pyramid is:

$$\Delta PV := \frac{PH}{201} \qquad \Delta PV = 2.415422886 \times 10^{0}\, ft \qquad 1)$$

The ratio of the height of the Great Pyramid to 1/2 its base length is equal to the square root of the golden ratio Φ, or:

$$SQRTGR := \frac{PH}{\left(\frac{PBL}{2}\right)} \qquad SQRTGR = 1.271574867 \times 10^{0} \qquad \text{Note: } \frac{4}{\pi} = 1.273239545 \times 10^{0}$$

Golden Ratio Sq. Rt.: $\Phi_{sqrt} := \sqrt{\frac{1+\sqrt{5}}{2}} \qquad \Phi_{sqrt} = 1.272019650 \times 10^{0} \qquad 2)$

Then for each step in vertical distance, the horizontal distance moved towards the center should also be a ratio equal to the square root of the golden ratio.

$$\Delta PH := \frac{\Delta PV}{\Phi_{sqrt}} \qquad \Delta PH = 1.898888029 \times 10^{0}\, ft \qquad 3)$$

The total linear distance around the circumference of the pyramid, taking into account that each vertical step decreases the horizontal distance, is calculated below.

$$TL := \sum_{n=0}^{200} 8 \cdot \left[\frac{PBL}{2} - (n) \cdot \Delta PH\right] \qquad TL = 3.086092849 \times 10^{5}\, ft \qquad 4)$$

Assigning the length above as a quarter-wavelength, a full wavelength is four times the result.

$$\lambda_T := 4 \cdot TL \qquad \lambda_T = 3.762564401 \times 10^{5}\, m \qquad \text{Let: } c := 2.997924580 \cdot 10^{08} \cdot \frac{m}{sec}$$

The base frequency of a Tesla-style coil wound around the pyramid's steps is therefore:

$$f_T := \frac{c}{\lambda_T} \qquad f_T = 7.967769479 \times 10^2\,\text{Hz}$$ 5)

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The goal is to have the frequency of the Tesla style coil equal to the acoustic resonance frequency of King's chamber 'sarcophagus" and the Grand Gallery, which is 438.5 Hz. Therefore, let a flat sheet of copper be one turn on the surface of each step and a turn also be on the adjacent vertical surface. This effectively doubles the number of turns and thus will halve the frequency above. Also, the door represents a possible break in the turns and so the summation equation is adjusted to start the turns as twice as many but to allow for the door height as well as its distance from the base which is very close to 49 feet, or about 20 steps.

The first sum of length is up to the 20th step and resumes at step 31. This allows for 11 steps in distance for the door opening. We stop at step 186 to allow for the last steps to have room for a capstone of pure quartz crystal. The copper winding is connected to the base of the crystal.

$$TLd := \sum_{n=0}^{20} 16\cdot\left[\frac{PBL}{2} - (n)\cdot\Delta PH\right] + \sum_{n=31}^{186} 16\cdot\left[\frac{PBL}{2} - (n)\cdot\Delta PH\right] \qquad TLd = 5.606563957 \times 10^5\,\text{ft}$$ 6)

Assigning the length above as a quarter-wavelength, a full wavelength is four times the result.

$$\lambda_{Td} := 4\cdot TLd \qquad \lambda_{Td} = 6.835522776 \times 10^5\,\text{m}$$ 7)

The base frequency of a Tesla-style coil wound around the pyramid's steps is therefore:

$$f_{Td} := \frac{c}{\lambda_{Td}} \qquad f_{Td} = 4.385801464 \times 10^2\,\text{Hz}$$ 8)

Therefore, the allowed door opening height in feet is:

$$DH := \Delta PV\cdot 11 \qquad DH = 2.656965174 \times 10^1\,\text{ft}$$ 9)

The flat copper-sheet turns would be covered by the limestone casing stones which would serve to protect the copper from the elements as well as insulate them electrically from each other. adequate spacing between turns would be allowed and still have room for a substantial amount of copper cross-sectional area to allow for a very high-Q coil. The resulting voltage at the top of the coil would be enormous compared to the small hobby coils we are used to seeing nowadays.

The vertical nonlinear voltage gradient would be used to interact with the internal acoustically resonant mechanism of the grand gallery and the coffer of the King's chamber to cause the resonance energy to reach pile driver force against the red granite resonators in both the end of the Grand Gallery and the top and bottom of the King's chamber. This would create a substantial matter wave whose quantum energy would be boosted by the electrical frequency of the vertical electrical field of the tesla style coil wrapped around the outside of the pyramid.

8

Chaos Energy Gain by Self Organization

For fields in general, the Mandalbrot fractal in 3D shows that there are complex numbers that when iterated cause a buildup in magnitude towards infinity. If we look at the plot below for a 3D Mandalbrot plot we see that certain small areas yield very pronounced peaks which show that the magnitude at that small area grows very rapidly as the output of the Mandalbrot equation is circulated back to the input.

I remember back to an experiment done in one of the Electronics classes I attended where a ladder type transmission line was fed by an r. f. power transmitter at about 10 meters in wavelength. We examined the standing waves along the unterminated line with a small flashlight bulb hooked to several turns of wire. This illustrated where the maximum and minimum current nodes were along the line. We also used a small neon bulb to determine where the maximum and minimum voltage nodes were. It was demonstrated by this experiment that the voltage and current nodes were 90 degrees apart. I remember that the instructor was careful to emphasize that the transmitter was operating on the leakage power through the final amplifier tube since the high voltage for the final was disconnected to prevent burning out the tube due to the amplitude of the reflected waves causing the output tube to either short out due to arcing or too much current being drawn from it due to the high potentials being reflected back from the standing waves on the transmission line.

In light of what I now know about the Mandalbrot set, I suspect that certain complex values of voltage or current amounting to a critical complex impedance may have went 'fractal' and the voltage and current at the input rose suddenly, thus burning out the tube if the power output tube was supplied with B+ on the plate.

The fractal rise of voltage at certain critical complex impedances would also explain how tuning forks can be caused to deliver more energy into a receptor tuning fork when coupled in just the right distance and angle of the forks. This would represent a complex load at a critical coupling impedance that suddenly went fractal.

The critical complex impedance causing a sudden runaway of voltage and current might be the cause of large scale electrical grid blackouts, where the voltage would begin to swing violently thus causing plants to trip off line in a cascading sequence. This would not present itself as an easy problem to solve since various critical random load impedances could possibly cause the fractal rise in voltage and current quite unexpectedly.

It is possible to apply the critical complex impedance concept to the Great Pyramid at Giza where we consider the possibility of the Great Pyramid extracting energy from its surroundings and converting the energy to a world grid of pyramidal receptors. By carefully tuning the resonance along the Grand Gallery, a critical impedance point at the entrance to the King's Chamber would began to provide a fractal rise in energy that theoretically would be unlimited. This would have to have very fine control to keep from destroying the resonant transmission line characteristics of the Grand Gallery and the power converter coffer and resonance vaults above the King's chamber.

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It has been established that fractals appear in nature as a result of a nonlinear change of energy or force over time and are not just a mathematical occurrence. This 'sensitive dependence upon initial conditions' occurs by reason of a nonlinear feedback mechanism where we add a complex constant during each feedback loop. Then the constant is incremented to allow for the next feedback loop. If the absolute value of the output of the process is larger than two, the complex constant is incremented and the loop is set into motion again. The equation is:

$$Z = Z^2 + C \qquad 10)$$

where Z is initially set to a value of zero. C is in the form of:

$$C = X + Yj \qquad 11)$$

where X is a real number and Y is an imaginary number.

The 3D graph below illustrates how peaks form at critical values of complex numbers. This could apply to any complex set of values.

$X := -2.00 \quad Y := -2.00 \quad i := 1,2..400 \quad j := 1,2..400 \quad step := .01$

$$X_i := X + \sum_{n=1}^{i} step \qquad Y_j := Y + \sum_{m=1}^{j} step \qquad 12)$$

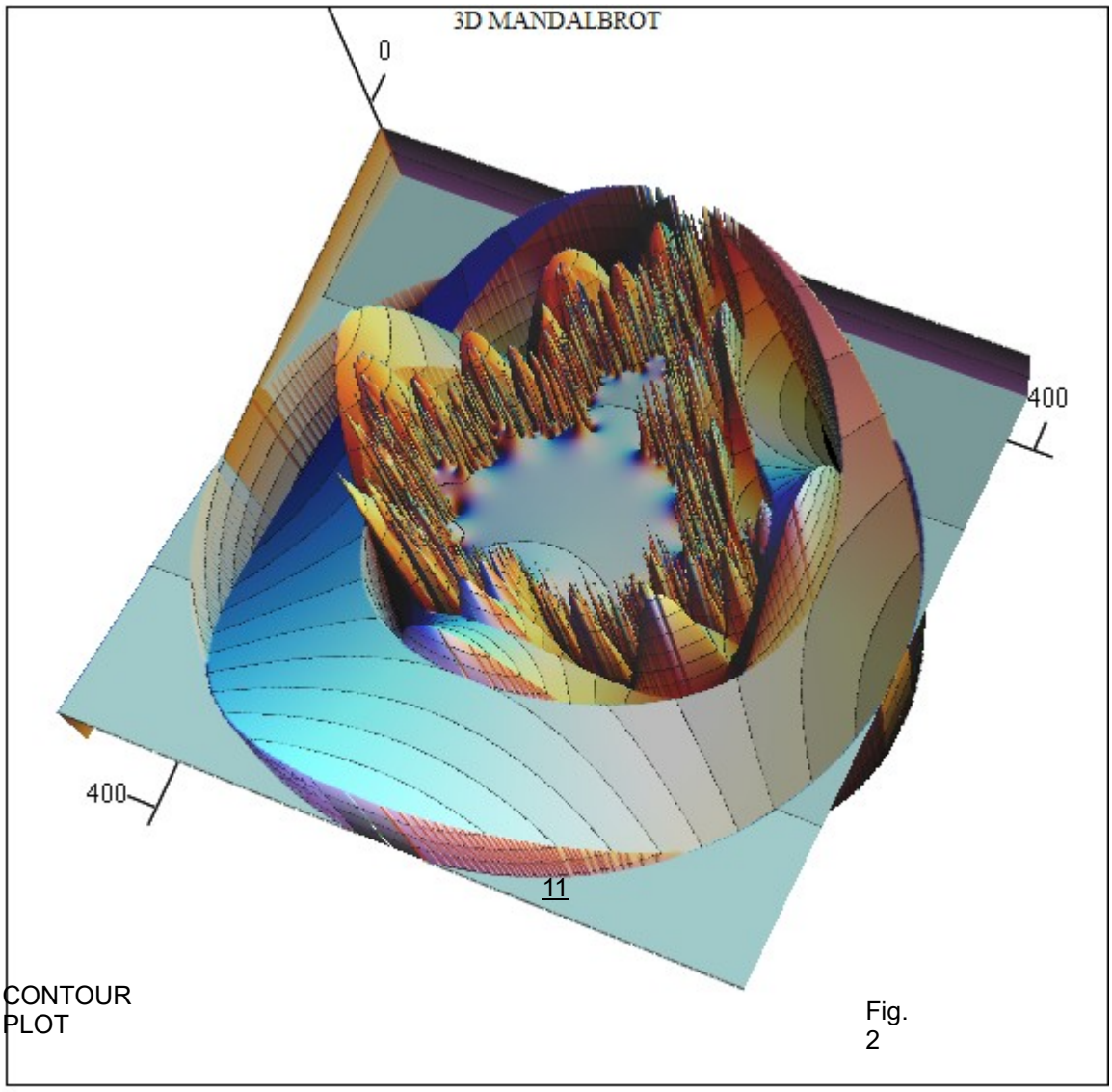
$$C_{i,j} := X_i + j \cdot Y_j \qquad ittr := 15 \qquad 13)$$

$z_{i,j} :=$
- $z_{i,j} \leftarrow 0$
- $N \leftarrow 0$
- while $N < ittr$
  - $N \leftarrow N + 1$
  - continue if $|z_{i,j}| > 2$
  - $z_{i,j} \leftarrow (z_{i,j})^2 + C_{i,j}$
  - $N \leftarrow 0$ if $|z_{i,j}| > 2$
- $z_{i,j}$

This program begins with X and Yj at -2.00 and steps X in increments of .01 until it reaches +2.00. Then Yj is incremented by .01 to -1.99. This process is continued until both X and Yj are equal to 2.00. During this process, z is checked to see if the absolute value exceeds 2.00. If so, the iteration falls through to the next loop. The maximum iteration is 15 loops. The output z can represent energy, force or whatever is of interest.

In the below Mandalbrot plot, the peaks surrounding the Mandalbrot 'lake' are of main interest
since they represent a gain in absolute value and it is known that if the peaks exceed 2.00, the
amplitudes will head for infinity.

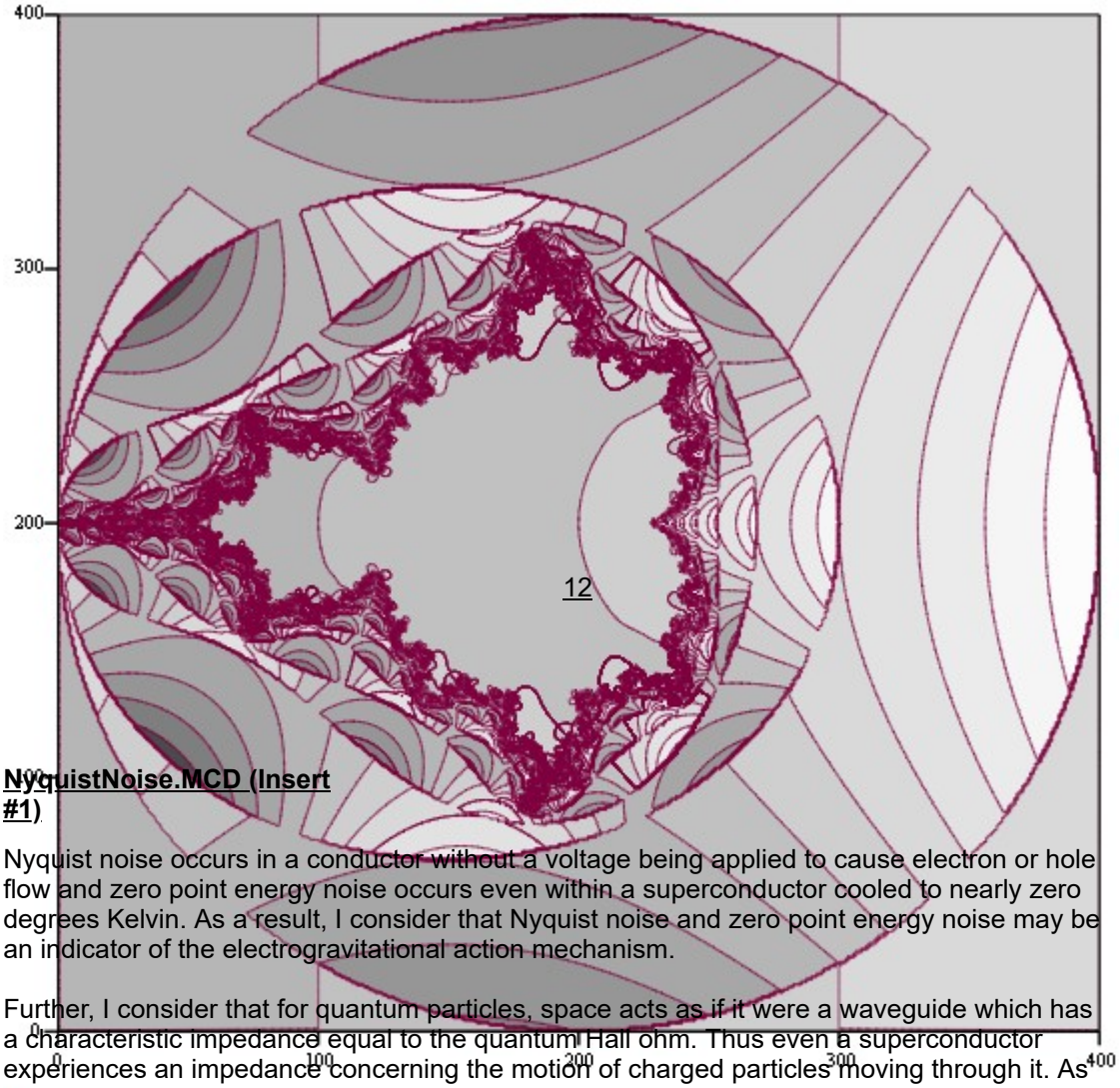
$M_{i,j} := z_{i,j}$ SURFACE PLOT Fig. 1



CONTOUR PLOT

Fig. 2

M



NyquistNoise.MCD (Insert #1)

Nyquist noise occurs in a conductor without a voltage being applied to cause electron or hole flow and zero point energy noise occurs even within a superconductor cooled to nearly zero degrees Kelvin. As a result, I consider that Nyquist noise and zero point energy noise may be an indicator of the electrogravitational action mechanism.

Further, I consider that for quantum particles, space acts as if it were a waveguide which has a characteristic impedance equal to the quantum Hall ohm. Thus even a superconductor experiences an impedance concerning the motion of charged particles moving through it. As a result, when particles move due to the Nyquist effect, a voltage is generated across the ends of the conductor, the average of which over time is zero, but at a small enough interval of time, it does exist as a measurable voltage. Of the most interest is the 1/f noise which grows larger as the frequency approaches subsonic ranges. This is also called flicker noise and it affects all natural processes, even the rotation of the Earth and the planets.

Albert Einstein once remarked that he analyzed the action of relativity by imagining himself traveling with an electromagnetic wave and visualizing the space around it in terms of the constant velocity of the wave. When considering particles with rest mass, I consider that there are waves other than those connected with free space photons. These are waves which are known to travel in a waveguide and also which apply for the case of quantum particle motion. They are known as group and phase waves, the individual speed of which are not usually equal to the speed of light and yet their product equals the speed of light squared. Then the group wave travels at a velocity less than c while the velocity of the phase wave travels at a velocity greater than c.

Let us now imagine ourselves looking at the surface of the ocean or a large lake and looking towards where the sun is in a rising or setting position such that we see peaks of the water 'noise' glistening with light while the troughs are dark. One cannot predict where the next peak will appear or the exact time it will appear which makes the process truly random and hence the term noise. As we approach the shore, we observe that somehow, a coherent process occurs such that the peaks suddenly organize into a wave and furthermore, the wave begins to move towards the shore. I term the frontal motion of the wave the group velocity and the phase velocity is associated with the inline direction along the crest of the wave. Thus, the group and the phase motions are nearly 90 degrees to each other. For some unknown reason, a peak that moves towards the shore generates a phase wave which almost instantly organizes an adjacent peak into moving at a slow group velocity in the same direction and so on until enough peaks are organized to form a wave. Further, the process gains energy since it is no longer random in location and time. That is, a total decoherance in

noise suddenly becomes coherent and thus entropy becomes reversed which is a process involving gaining energy. Entropy is a loss of energy which means that reversing entropy is a gain of energy.

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In general, once a wave is forming, noise continues to occur within the moving wave and that added noise is also converted to organized motion which tends to build on the coherent energy content of the wave as it moves along. For the case of the ocean wave, the energy gain raises the crest of the wave and also the breadth and width as more organized particles create more of a phase wave which reaches more particles to organize. Thus the energy related to random noise in the ocean as well as in the Earth and even in the universe is transferred to the wave via the same process that causes gravitational action.

I am suggesting that gravitational action is also related to the mechanics of coherence where the superluminal phase wave causes quantum particle entanglement and induces mutual motion so that particles move in the same direction. We know that electrical currents moving in the same direction in parallel wires cause attraction. In this case, the action would normally be one of attraction. I have previously presented papers that relate momentum to the **A** vector. See my paper, "A Proposed Test For Determining The Mechanics of Electrogravitation" at: http://www.electrogravity.com/DISKTEST/AVecDisk.pdf, eq. 1-3 on p.3. The product of charge times the **A** vector is equal to mass times velocity which is momentum and visa-versa. Thus the vector magnetic potential (**A** vector) connects matter and its wavefunctions to quantum particle dynamics and thus may be taken as a main component of the quantum phase wave.

Further, I am suggesting that the impulse mode **A** vector is embodied in the mechanism of the 1/frequency 'flicker' noise where flicker noise is known to show up in all physical processes including biological, atomic power generation levels and the variables in economics. This suggests a quantum mechanics even more fundamental than the **A** vector, such as the universal refresh impulse I have previously postulated as restoring our universe from one very small interval of time to the next. The lower the frequency, the greater the magnitude of flicker noise.

I suggest that a large scale collection of high temperature superconducting Josephson junctions might be arranged such that the noise in each one becomes ordered like ocean waves suddenly created out of randomness. The result is a matter wave moving across the junctions, building in energy with each pass over another junction, the process, moving in a circular fashion instead of in a linear motion and building in energy density like an ocean wave approaching the shoreline.

A circular craft covered with a monolithic skin of 'grown' josephson junctions may generate a huge electrogravitational field reinforced by free ambient noise energy with each rotation. The junctions will have voltages applied to them to synchronize the motion of the matter wave to a certain rotational rate that will maximize the energy build up due to the local ambient noise field available.

When in deep space the noise field could be supplied by the cosmic background radiation and the gravitational **A** vector noise as described above. There is a corollary with the design of the Great Pyramid at Giza insofar as it being capable of power generation using the ambient noise fields of the Earth. I suggest the Great Pyramids design also may have used the cosmic background radiation and the quantum Nyquist noise formula shows that when the King's chamber frequency of 438 Hz is combined with the background temperature of 2.73 deg.K and the frequency window (Δf) of 2.7818 Hz, the output energy has an equivalent frequency of the main hydrogen frequency source of 1.420 GHz.

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Nyquist's theorem: (Quote): "The mean square noise voltage across a resistance in thermal equilibrium is four times the product of the resistance, Boltzman's constant, the absolute temperature and the frequency range within which the voltage is measured." (Unquote.) Reference: The McGraw-Hill Dictionary of Scientific And Technical Terms, Fifth Edition, 1994, p. 1372.

For the purpose of the following analysis, the relevant parameters are stated below

$R_Q := 2.581280560 \cdot 10^{04} \cdot ohm$ Quantum Hall Ohm

$k := 1.380658000 \cdot 10^{-23} \cdot joule \cdot K^{-1}$ Boltzman's Constant

$\Delta f := 1.003224805 \cdot 10^{01} \cdot Hz$ Measurement Window

$q_o := 1.602177330 \cdot 10^{-19} \cdot coul$ Quantum Charge

$h := 6.626075500 \cdot 10^{-34} \cdot joule \cdot sec$ Plank's Constant

$m_e := 9.109389700 \cdot 10^{-31} \cdot kg$ Electron Rest Mass

$V_{LM} := 8.54254612 \cdot 10^{-02} \cdot m \cdot sec^{-1}$ Least Quantum Velocity

$E_{LM} := m_e \cdot V_{LM}^2 \qquad E_{LM} = 6.647585716 \times 10^{-33} J$ Least Quantum Energy

$\alpha := 7.297353080 \cdot 10^{-03}$ Fine Structure Constant

The Fermi electrogravitational energy E_{LM} of a particle's temperature is presented as:

$E_{LM} = k \cdot T$ has solution(s) for T of: $T_{LM} := \frac{E_{LM}}{k} \qquad T_{LM} = 4.814795348 \times 10^{-10} K$

Solving for the Nyquist noise related quantum voltage at temperature T_{LM} above:

$V_N := \sqrt{R_Q \cdot k \cdot T_{LM} \cdot \Delta f}$ or, $V_N = 4.149050388 \times 10^{-14} volt$ 14)

$E_N := q_o \cdot V_N \qquad E_N = 6.647514473 \times 10^{-33} J \qquad f_N := \frac{E_N}{h} \qquad f_N = 1.003235546 \times 10^{1} Hz$

The quantum Nyquist expression which derives the voltage squared and prevents the ultraviolet catastrophe is:

$$v_{tavg}^2 = \frac{4h \cdot f \cdot R \cdot \Delta r}{\left(e^{\frac{h \cdot f}{k \cdot T}}\right) - 1}$$ 15)

If we divide through both sides of the equation by R and then multiply through both sides by t, the inverse of f, we arrive at the equation next which is the quantum Nyquist expression for energy in joules. Further, we plot the energy W(f) as a function of a changing frequency expressed as time by t=1/f.

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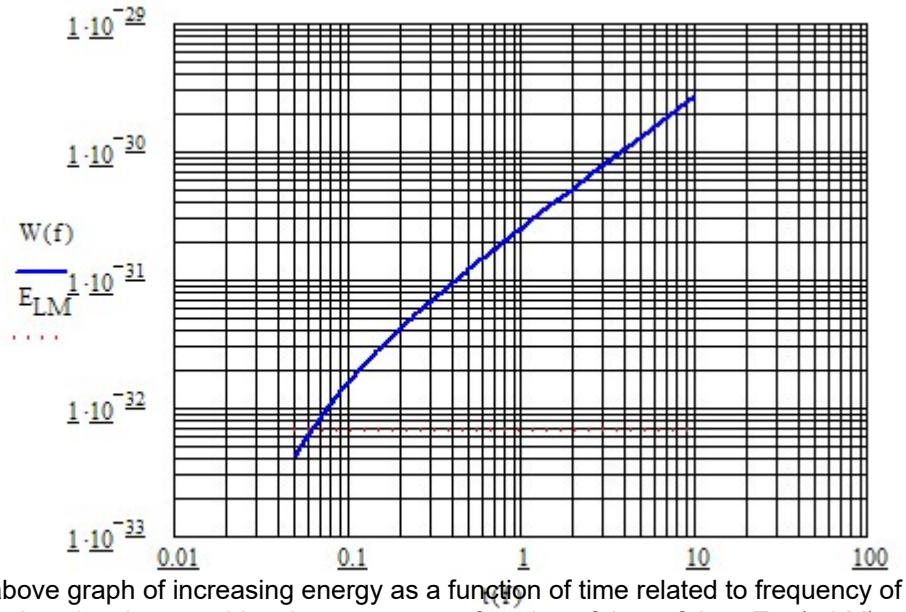
$f := 20 \cdot Hz, 19.9 \cdot Hz .. 0.01 \cdot Hz \qquad W(f) := \frac{4 \cdot h \cdot \Delta f}{\left(e^{\frac{h \cdot f}{k \cdot T_{LM}}}\right) - 1} \qquad t(f) := \frac{1}{f}$ 16)

Fig. 3



Note that the above graph of increasing energy as a function of time related to frequency of a Josephson junction closely resembles the energy as a function of time of the ΔEvp(ΔtLM) graph on
page13F of my paper, "A Proposed Test For Determining The Mechanics of Electrogravitation." The above chart demonstrates to 'flicker noise' effect wherein the lower the frequency, the greater the energy. Note also the energy change is logarithmic, as is the chart on p.13F of the above cited reference. Therefore the above chart may be related to an increasing phase velocity.

The Josephson junction frequency formula is stated below and the frequency can be used as the f in the Nyquist formula below that.

Let: $\Delta V := V_N$ $f_J := \frac{q_o \cdot \Delta V}{h}$ or, $f_J = 1.003235546 \times 10^{1}\,Hz$ 17)

When the Nyquist formula is reevaluated in terms of the energy related to $q_o \cdot \Delta V$ and $h \cdot f_J$, a gain in energy over E_N or E_{LM} is the result for $W1_J$ and $W2_J$ below.

$$W1_J := \frac{4 \cdot h \cdot \Delta f}{\left[e^{\frac{(q_o \cdot \Delta V)}{k \cdot T_{LM}}}\right] - 1} \qquad W2_J := \frac{4 \cdot h \cdot \Delta f}{\left[e^{\frac{(h \cdot f_J)}{k \cdot T_{LM}}}\right] - 1} \qquad 18)$$

$W1_J = 1.547489101 \times 10^{-32}\,J$ $W2_J = 1.547489101 \times 10^{-32}\,J$

$f1_J := \frac{W1_J}{h}$ $f2_J := \frac{W2_J}{h}$

$f1_J = 2.335453469 \times 10^{1}\,Hz$ $f2_J = 2.335453469 \times 10^{1}\,Hz$

The frequency f_J required to yield the electrogravitational frequency F_{LM} is:

$$E_{LM} = \frac{4 \cdot h \cdot \Delta f}{\left[e^{\frac{(h \cdot f3_J)}{k \cdot T_{LM}}}\right] - 1}$$ has solution(s) $$f3_J := \ln\left[\frac{(E_{LM} + 4 \cdot h \cdot \Delta f)}{E_{LM}}\right] \cdot k \cdot \frac{T_{LM}}{h}$$ 19)

where, $f3_J = 1.614645433 \times 10^{1}\,Hz$

For the Great Pyramid, the King's chamber and Grand Gallery frequency of resonance is used as the Nyquist frequency f_{GP} = 437.041 Hz to cause a quantum energy boost. The energy output is the frequency necessary to boost the microwave energy of the main spectrum of Hydrogen that is fed through the large granite box (hydrogen microwave maser amplifier) in the King's chamber. First, the relevant parameters are stated for the purpose of calculation.

A4 on piano

$$\Delta f_p := e \cdot 10^{0} \cdot Hz \qquad f_{GP} := 437.041 \cdot Hz \qquad T_{LM} := 2.74 \cdot K \qquad \Delta f_p = 2.718281828 \times 10^{0}\,Hz$$

$$W_p := \frac{4 \cdot h \cdot \Delta f_p}{\left[e^{\frac{(h \cdot f_{GP})}{k \cdot T_{LM}}}\right] - 1} \qquad W_p = 9.411719183 \times 10^{-25}\,J$$ 20)

$f_{new} := \frac{W_p}{h}$ or, $f_{new} = 1.420406270 \times 10^{9}\,Hz$ ~Main Hydrogen Frequency.

Note that the frequency window Δf_p is set equal to the natural number e=2.718281828 in Hz units.

It is of interest also that if the frequency window Δf_p is set to the golden ratio in Hz, the required f_{GP} frequency is 260.145 Hz which coincides with frequencies related to midband of the Queen's chamber cooling tower slot width's as well as for the corbelled width's of the Grand Gallery.

Middle C on piano

$$\Delta f_p := \frac{1 + \sqrt{5}}{2} \cdot Hz \qquad f_{GP} := 260.145 \cdot Hz \qquad T_{LM} := 2.74 \cdot K \qquad \Delta f_p = 1.618033989 \times 10^{0}\,Hz$$

$$W_p := \frac{4 \cdot h \cdot \Delta f_p}{\left[e^{\frac{(h \cdot f_{GP})}{k \cdot T_{LM}}}\right] - 1} \qquad W_p = 9.411716162 \times 10^{-25}\,J$$ 21)

$f_{new} := \frac{W_p}{h}$ or, $f_{new} = 1.420405814 \times 10^{9}\,Hz$ ~Main Hydrogen Frequency.

The above calculations concerning the Great Pyramid are only scratching the surface of the possible technical design details of a structure that may have provided considerable power utilizing ambient cosmic background radiation and ambient Earth Schumann energy to power an entire Earth world civilization.

Conclusion

The term "Zero Point Energy" is used quite frequently in theoretical physics literature of today since it is hoped that somehow this energy may be tapped into to provide energy and propulsion for a new technology which will free society from its dependence on oil and allow for space exploration to the stars. I have not used the term in my own work since I consider that zero point

energy is only a limited form or boundary edge of what I perceive to be limitless energy space, a space where all points in our normal space become one point.

I propose that there must exist a least quantum energy related to Zero Point Energy. It is what I call the least quantum electrogravitational energy related to $h(f_{LM})$ where h is Planks constant and f_{LM} is the least quantum electrogravitational frequency constant equal to a spread of 10.03224805 Hz.

The energy is entropic and thus is negative. It accumulates over time in space and is invisible. It can interact electrogravitationally with normal matter and thus I postulate that it is a large part of the missing matter in our universe.

THE END
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April 28, 2004