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ERIC DOLLARD COLLECTION

Free-Energy Research of Eric Dollard

A Collection of Contributions to
The Journal of Borderland Research

FUNCTIONAL THINKING: An Interview With Eric Dollard
by Tom Brown

Eric P. Dollard, Wireless Engineer, is a scientist who bases his work on observation of phenomenon and practical experimentation. He is the Vice-President of BSRF and the author of five published papers on electrical phenomena: CONDENSED INTRO TO TESLA TRANSFORMERS, DIELECTRIC AND MAGNETIC DISCHARGES IN ELECTRICAL WINDINGS, SYMBOLIC REPRESENTATION OF ALTERNATING WAVES, SYMBOLIC REPRESENTATION OF THE GENERALIZED ELECTRIC WAVE (IN TIME), and THE THEORY OF WIRELESS POWER. In the course of Eric's research he has investigated the works of Nikola Tesla, Charles Proteus Steinmetz, Philo Taylor Farnsworth II, Johann Sebastian Bach, Wilhelm Reich and other true Scientists of our era. I have personally witnessed the propagation of electricity without wires, the phenomenon of drawing several inch sparks off insulators and mysterious living forms in plasma gas bulbs connected to Eric's Tesla apparatus. Eric speaks a knowledge gained by hands on experience. This interview will certainly change your point of view about the Borderlands of Science and will certainly shatter any preconceived notions you once had about Tesla, Free Energy, ELF, The American Dream, etc.....

Tom: What first interested you in the works of Nikola Tesla and electrical engineering in general.

Eric: I've always been interested in the subject. Years ago someone gave me a copy of Co-Evolution Quarterly that had an article on Tesla, Philo Farnsworth and Edwin Armstrong. That got me thinking about what was going on as I had basically reinvented the Tesla coil as a teenager using equipment given to me by RCA. Things started to connect at that point. Then I read PRODIGAL GENIUS (by John O'Neill) and it was like I was hit with a bolt of lightning. That book shocked me into action.

T: What do you think that Tesla was trying to attempt in his work?

E: Its hard to sum that all up in one phrase.

T: Would the culmination be the transmission of electrical energy without wires?

E: That was part of his projects, using what could be called true single phase electricity, or mono-polar electricity. That's the key to his transmission of electrical and mechanical energy - to convert it to a single phase form.

T: Would you say that monopolar electricity is electromagnetic?

E: No, its anti-electromagnetic.

T: You mentioned Philo Farnsworth, what type of work was he doing?

E: Farnsworth built the multipactor tube, a secondary emission, negative resistance tube. It tends to take off when connected to apparatus such as a Tesla coil and exhibit electrical oscillations.

T: So, to use a catch-word of the day, it was a free energy device?

E: Yes, probably the only real free energy device that anyone ever demonstrated which can be reproduced.

T: Was there any relationship between the work of Tesla and that of Farnsworth?

E: They are really in totally opposite directions. Farnsworth was the high master of electronics...he was electronics. No one knew more about the electron than Farnsworth. Tesla was dealing with ether type forces that don't involve material or atomic particles, they involve something a little finer than that.

T: You have worked extensively with Tesla coils and we have published your books on the subject. What do you feel is the actual use of these apparatus?

E: As a transmitter-receiver device, for transmitting energy without transmission towers or large arrays of dipoles, or equivalent.

T: What is the medium for the transmission of energy if wires are not used?

E: Whatever the general media is around us, call it the ether, or air or you can transmit it through the ground. Basically it just flows. The Tesla system is designed to transmit through the ground. There's a lot of talk about propagating through the earth-ionosphere wave guide, which Tesla, in no way, shape or form envisioned. Most of his apparatus are for transmission through a common conducting medium and the earth is the best conducting medium available. The devices are one conductor electrical generators - just connect one terminal to the common conducting medium and all the other or terminal devices will receive the energy. There's no pairs of wires or wave guides to bound the energy. These are what are called unbounded waves. The Tesla Magnifying Transmitter is a converter which converts electromagnetic energy into what is called magneto-dielectric energy.

T: What exactly is the dielectric side of electricity?

E: The side of electricity that represents the faster than light phenomenon.

T: How does the dielectric relate to Reich's orgone energy?

E: Reich found that the orgone and the dielectric field are basically one and the same. If a dielectric field has the proper pulsations then you could almost call it the orgone energy. An example of this is the orgone accumulator, which is alternating layers of dielectric and reflecting material, like a capacitor. The reflecting is usually called the conducting in electrical engineering work but this is based on misconceptions from the 18th and 19th century with regards to how electricity flows. Its well known that electricity doesn't flow through wires, but that's the conception that most people carry around in their heads. Of course people used to think the earth was flat, too. Reich's dogma assumed that the insulating or dielectric material had to be organic, but of course he was using glass wool and its stretching the term organic by applying it to glass wool. You could say the glass wool is organic because the silicone dioxide has two atoms of oxygen, but that's not really true.

T: Have you found any evidence in your research relating the dielectric field to orgone energy?

E: Yes, the cosmic superimposition effect. If you take a low pressure gas (in a bulb) and place it in two superimposed dielectric fields then you get spiral formations such as Reich wrote about in his book COSMIC SUPERIMPOSITION. These formations appear as spheres, galaxies and other cosmic forms.

T: So the high voltage terminal of a properly built Tesla transmitter puts out a dielectric field?

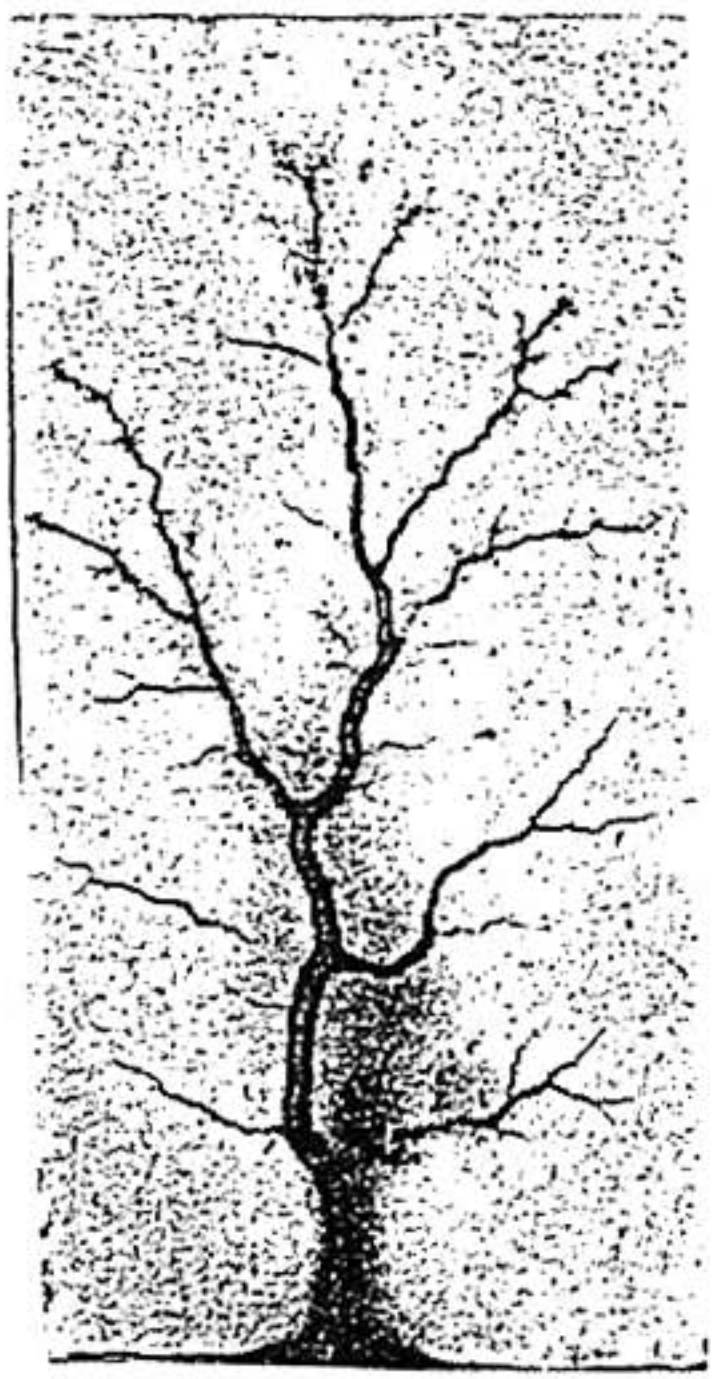
E: Right - a dielectric current - a current of many amperes flowing through free space without any electrons. This is a true electrical current.

T: Is this as you've demonstrated to me where you can draw a several inch spark off the insulator, which of course isn't supposed to happen?

E: Right, an insulator isn't supposed to conduct electricity so how can you draw a spark off of it? (laughter)

T: One thing I've noticed in these discharges is that they look like plants, like something organic, unlike regular discharges which look erratic and sparky. What explanation do you have for this?

E: Their shape is basically the Golden Ratio spiral. The log periodic spiral projecting out into space with all angles determined by the Golden Ratio. Now this is also the same shape that living objects form and you find that all discharges, in general, of potential energy will try to form this shape. You can see it in water patterns in sand and patterns in clouds in the sky. The patterns appear over and over and over again, just like the organic patterns burned into wood by the discharge of my Tesla coil. This is connected with the orgone right there. This type of monopolar electricity is in such a form that it will grow into organic patterns, a pre-life pattern from the ether itself. Any type of energy like this such as a stream flowing down the side of a mountain, a crack in a piece of window glass, or fresh water percolating up through the sand on a beach all make these organic patterns based on the Golden Ratio. Any time you have energy discharging you find this type of pattern. Of course this ties in directly with what Viktor Schauberger was saying. His work is actual proof of it. You can say there is a shape in space which is the log periodic spiral. It doesn't exist in a tangible form because it is something that grows and decays. Its size fits the wavelength and frequency of the amount of energy to be discharged. Its not like you can map space to see this particular spiral, but if you release energy into space then the spiral will appear.



Golden Ratio Discharge

T: I've heard that Tesla made references in his work to using a TMT for bringing in storms. Do you feel that there is any relationship between what Tesla was doing and what Reich was doing with his cloudbuster?

E: I haven't read too much information which indicates that Tesla was trying

to control the weather. He makes scant references here and there about how weather-like phenomena appear, such as fog appearing in his laboratory, but that wasn't Tesla's particular aim, where Reich's particular aim was in dealing directly with the actual forces. We have to remember that Tesla was a mechanistic, Victorian personality and he was trying to build machines that related to horsepower hours and BTUs and things everybody was concerned with at the time, and turn the globe into a giant amusement park.

T: Such as his plan to light up the atmosphere at night?

E: Right, you would never be able to see the stars, you'd just have the sound of electrical apparatus roaring everywhere. People weren't ready for Nikola Tesla.

T: I get the feeling that you don't approve of Tesla's final vision for the earth.

E: Not the way he represented the ideas, but what's interesting about the technology he made available, when used in perspective, is actually quite healthy for the planet. Then you're dealing with energies that take on organic shapes and you're one step closer to the type of energy that Reich theorized and made some actual physical discoveries of.

T: There's some popular literature on the market today claiming that the strange weather patterns the earth has been experiencing over the last ten years or so are being caused by Soviet use of Tesla apparatus. Have you done any research which would confirm or deny such claims?

E: The claims are basically groundless. I did a four year research project at Sonoma State University (California) involving the relationship between the planets in general, the sun and the weather on this planet, and the effects of solar flares on the weather, the effects of planetary alignments on solar flares, the effects of these things on radio propagation, earthquake activity, and tried to tie the geometries of all these energy patterns together. I found the weather patterns were very tightly coupled to the solar flare cycles, the Russians really don't have anything to do with this. Any effect the Russian Woodpecker signal would seem to have on it would be purely incidental because during these periods of intense solar flares signals like the woodpecker would be sounding louder and propagating better. Maybe its an advantageous point for the Russians to utilize the signal. This seems to be the case. But to think that the woodpecker is making solar flares on the sun and controling the times at which the planets align is absolutely absurd! As far as all these geometric patterns being seen in the sky, the Indians and other ancients knew about these patterns and they look like the patterns generated by mundane forces such as water and dielectricity.

T: What do you feel the woodpecker is and what is its use?

E: Its a non-Hertzian, shortwave signal which could be used for one of two things. Either its used for sounding and exploring the electrical system of the planet or more likely its a cryptographic signal utilizing the spread spectrum technology of frequency hopping and direct sequencing modulation. It is not an ELF signal!

T: Then the cloud patterns are the indicators of cosmic flux?

E: Exactly. A well trained observer can look at the sky and it serves as a metering of the intensity of the cosmic energy which exists at a particular point in space and time. I've utilized this during periods

of heavy solar flares to get an idea of the flare's more subtle characteristics by watching the geometries they produce in space, particularly at the intervals when the solar flares have stopped and all the earth is receiving the discharge from the flares. These discharges produce very profound cloud patterns and of course heavy rain. So the heavy rain cycles were produced by the enormous flares of solar cycle 21, which were cranked out between 1978 and 1982. The flares were most intense around 1978 and as the flares died down we got an upward cycle of precipitation. Now we're at the point where the energy has mostly fizzled out and the weather is fairly indeterminate from the solar-terrestrial physics standpoint.

T: In January we've received reports that the coldest temperatures on record have hit England and on the same day we got a report of an abnormally high 46° temperature in Antartica. Dog sleds have to be run at night because of the heat. My research shows that some of the major contributing factors to the erratic weather patterns have been the mass deforestation of rainforests to produce toilet paper and newsprint, and also nuclear testing which is also directly related to earthquake and volcanic activity.

E: You have to keep in mind that mass deforestation and large amounts of thermodynamic and nuclear energy are going to have a much stronger effect than the subtle energies coming from the planets and the sun. Deforestation and nuclear energy are definitely going to be dominant influences. Being that the size of the earth and the scope of the phenomena are so large, and the frequency of events is slow, its going to take a while to see exactly what effect all these destructive actions are going have. It seems as though everyone intuitively knows that life is going to thoroughly disrupt and things are going to get pretty bad. You just can't keep whacking on the earth and expect things not to start changing.

T: There has been a lot of varying literature on the polar shift appearing over the last 30-40 years. One aspect which I've pursued is the magnetic reversal of the poles. In some of the Native American prophecies they say that the earth will get very hot and then very cold, and then things will balance out again. Does this relate to any electrical phenomena as you understand it?

E: At the point at which the earth's magnetic field equals zero, which happens between maximum positive and maximum negative the planet will cease to be a magnetic energy type of situation and become a dielectric energy type of situation. In most spatial geometry systems which contain electric energy the point of zero magnetic energy is the point of maximum dielectric energy. Interestingly enough, for navigational purposes you wouldn't be able to use iron, or magnetic, permeability type materials anymore. You'd have to start using dielectric permeability materials like ceramic for compasses.

T: Would this be a short lived situation?

E: It would be in balanced proportion to the magnetic and it is probably going on right now, but it is not generally acknowledged due to the lack of measuring instruments. Physicists have focused their attention strictly on magnetism. In a newspaper article I was looking through the other day I saw that the physicists now have an even bigger magnet so they can smash atoms ever harder and find more little tiny fragments to catalog and confuse themselves. What could be quirkier than a quark? (laughter)

T: If this is happening right now and there is a dielectric propagation during the changeover of the magnetic poles could this in some way account for the shifting of orgone streams and be a part of the phenomena of the strange weather we've been having?

E: Yes, it could definitely tie in. You're talking about a whole different spatial geometry emerging as far as how electrical energy is distributed so you're going to have all kinds of effects. The weather is filling in patterns that already exist in space determined by all these fields of force, most of which we don't even know about yet. Tesla was able to open up a door into all these things, but he really didn't explain how to do it. There are other flux fields that can be measured with his apparatus that get more into this dielectric type of situation. Tesla was successful in measuring the amount of charge on the planet, but no one really knows how he did that. That would be an experiment to try. The velocity of light continually changes which changes the capacity of all capacitors and changes the effect of orgone. A fundamental property of an orgone accumulator is that the dielectric material, which Reich called the organic material, serves the purpose of slowing down the velocity of light trying to draw in the orgone energy. Then themetallic layers reflect the electromagnetic part but the dielectric part penetrates through it without even seeing what's going on. The accumulator serves as a magneto-dielectric separator. I don't know if Reich would go along with this. He had his own way of looking at it.

T: In science one has to look at different ways of viewing things if progress is to take place.

E: The important thing about Wilhelm Reich is not so much his apparatus or his theories but his concept of functional thinking. If you know the basic patterns of nature then you have no problem seeing all these phenomena. You have no problem looking up in the sky, knowing what all the cloud patterns mean. You have no problem developing apparatus to work with these energies because you just basically know. The great minds such as Johann Sebastian Bach and Nikola Tesla worked with these types of situations. You could say that all their work is based on archetypal forms. That's what makes their inventions or music so powerful. They were discoverers and not just inventors or composers or whatever kinds of names are put on these types of people. They go beyond that, they have tapped in and can see these fundamental shapes and geometries that everyone else is numb to. Viktor Schauberger is most important for bringing these things down to a practical level. If you make the right shapes then organic energy or water flow becomes easily manageable, that is, engineerable. He only intuitively knew a lot of this so it still wasn't worked in engineering science. If you bring in Tesla, Reich and, interestingly enough, Johann Sebastian Bach (who plays an important part in this) then you begin to find the nature of this basic form. If we take Tesla's three phase electricity, or rotating magnetic field, we find that it is based on the archetypal form known as the solar cross or by various other names.

T: Mandalas, medicine wheels?

E: Right, these are four quadrant types of forms, a balanced cross as opposed to an unbalanced cross.

T: This is where you get the Four Quadrant Theory of Electricity?

E: Right, electricity has to be viewed from a four quadrant type of situation. The right angle plays an extremely fundamental role in electricity. It is generally a right angle phenomenon.

T: This goes back to what we were discussing earlier about the positions of the planets in relation to solar flares and the weather. How do the quadrature relationships tie in with that?

E: When you take the planets like Mercury and Jupiter, which are the real activity generators, in right angle relationships involving the earth and the sun then you find that radio reception and electrical conditions on the earth tend to be disrupted. RCA used this for a number of years, its called radio astrology. Astronomers refuse to even talk about it, but you have a big company like Radio Corporation of America basing all their circuit predictions on it. They were big time, too. They had the big time circuits. They had the patents on radio and they're using astrology. Many old time RCA employees would talk about how the planets affect people's behavior, its just common knowledge to them because they have meters right there where they see these cosmic disturbances, and of course when they go out on the street or drive home they find that people are also modified by these various waves that were affecting shortwave transmission.

T: Since we're talking about behavioral modification, there is a lot of talk currently claiming that the Soviets are modifying behavior using extremely low frequencies (ELF). This is being attributed to Tesla apparatus. What exactly did Tesla do with ELF?

E: Tesla never did any work in ELF. His work was with the high frequencies, the opposing end of the spectrum. Tesla was the first to break away from the low frequency phenomena and that is what makes his work so important.

T: What about literature claiming that the Russians are using Tesla's ELF transmitters?

E: As far as I can tell, its basically a paranoid fantasy.

T: No direct relationship to any scientific work you've done or any mention by Tesla?

E: No, I've never seen evidence of such things, but I don't want to discredit people's work in that area.

T: Right, I feel that Dr. Robert Beck has done some tremendous and groundbreaking research into how ELF fields affect people's behavior. My question was to find out if any of this research is related to Tesla's work in any way.

E: There's no connection at all to Nikola Tesla. Its my personal opinion that the communists are not attempting anything of the sort.

T: So Tesla's name is being used as a technique to enhance various people's theories?

E: Basically. What's interesting is that these behavioral modification techniques are found on television commercials here in this country. American TV commercials that involve a lot of money use certain images, frequencies, wavelengths and such. This is along the lines of what has been proposed that the Russians are doing, but it all comes through the TV screen. It is not being transmitted through the ground or the ether or the earth-ionosphere wave guide.

T: So you're saying that high tech TV commercials are a form of psychotronic programming?

E: Yes, they're totally psychotronic. People in a sensitized state will react to that stuff pretty heavily, wheras the average person sees it as just something else on the TV.

T: Do you see these psychotronic images, not just on TV, but actually in the products being sold to consummers?

E: Its everywhere. Architecture represents the thought patterns of each era, so now we have an architecture which is sort of the logical conclusion of modernism, or what I refer to at this point as techno-fascism. The covers of Omni Magazine serve as a perfect example of techno-fascistic art. There is sterility and everything is in rectangular x, y, z, coordinates. The images are usually faceless and abstract. Of course architecture and art have a direct influence on people. It gets right down to the inside without having to go through any thinking process or educational process. If we take for example any piece of great music which has been around for a while, for a few hundred years, and people still want to listen to it for some reason. It doesn't matter if they're English or French or Russian, everybody likes it. The same thing with mathematics - it doesn't matter if you're German or Yugoslavian, any equation is still the same, the numbers and letters are still the same. There's no instructions needed, you just go right to work. So the art and architecture now is kind of an engineered thing designed to maximize the efficiency of consumption in the things that are desired in this particular type of techno-fascistic society.

T: How does this relate to automobile styling?

E: Well of course that's architecture again. There's generally three or four architectural patterns produced by all automobile manufacturers and interestingly enough, once you start looking for these things, you notice each automobile manufacturer actually uses the same letters and numbers for the same form of car that all the other companies do. It seems almost as if there is some sort of program, but it seems that now, rather than being a characteristic style of the era, there is a plan behind all of it. Of course its easy to cook up all these conspiracy theories about this, it could be accidental. It is interesting to study to see what representations exist in the modern era.

T: Its not accidental that the psychotronic programming has filtered into television programming, is it?

E: No. There's strong evidence indicating that its not accidental. The best case of that which I've seen is that of a picket fence I saw in the surf on a TV commercial to give a flash of vertical lines, which is a fundamental geometry used in all high tech TV commercials. Its either an x, y, coordinate grid, or horizontal lines, which are very popular, but very often vertical lines. Its hard to distinguish exactly what determines which one is used. Now I saw a commercial where people were playing on the beach and out in the surf was a small picket fence. Now how many times does a person see a small section of picket fence in the surf? It won't stay there too long anyway. So apparently it was necessary to use it to place the vertical lines. Whether this is an architectural style or whether it has an archetypal meaning still has to be determined.

T: That would be a whole area of research in itself, the deciphering of TV commercials to see what is being put into people's heads.

E: Its the same thing with the food. You go to the store and grab two loaves of bread. You look at one loaf and its ingredients read like a chemical rubber company's handbook on organic chemistry. It tastes like garbage and it doesn't do anything good for you. Its just worthless stuff. If you get a loaf of bread that has none of that stuff in it then it tastes good and makes you feel good. These chemicals don't really prolong the life of the bread, they don't make the food taste any better, yet they're in there. Why are they in there? They don't do anything...why are they in there?

T: It can't be an accident.

E: No, they certainly didn't slip in. They're all precisely measured and metered.

T: There's also a lot of stuff that's not required to be on the label. Take for example the new soft cookies in the stores. They contain plastic, but since plastic is not a food it doesn't appear on the list of ingredients.

E: That reminds me that in the 1930s PCBs were going to be used to extend the life of chewing gum. Shortly afterwords came the phrase - "Better Living Through Chemistry." From an ecological standpoint the chemical destruction of the planet has to be feared more than the nuclear or anything else. We have all these PCBs and everything just floating on the surface of the oceans. What's going to happen when it all soaks in?

T: Well we have the phenomenon of whales beaching themselves, and of course the scientists can't figure it out because they see everything as being disconnected.

E: That one's not too hard to figure out. Take a large naval aircraft carrier. This thing is going to have some heavy duty sonar on it with a peak output power of about 750,000 watts. This is 750,000 watts of sound, which is precisely in the wavelength that the whales communicate on. They can hear their own sounds halfway across the ocean and now the ocean is filled with these incredible shrieking noises that sound like spark gaps, ringing sounds and rapid explosions. It probably sounds like being in a battle zone. Its no wonder why they would want to hop out of the water. Their environment has been turned into a raucous.

T: I've heard that the sound that whales make is a direct transmission of a three dimensional picture. Before the advent of propeller driven boats and sonar and whatever the whales could communicate around the world in 3-D.

E: Sure, we've screwed ourselves. Nikola Tesla worked in a clean electrical environment to make his various measurements. Now the space is just alive with 60 cycles and its harmonics. You can walk out into the deep desert, and after meditating and calming down for a while, you can feel the air itself hum like a giant induction motor. This pulsating 60 cycles is just roaring in the air. You have to keep in mind that the entire electrical system of the country is operating in phase conjunction. Everything has to move together. Every motor, every transformer, every piece of machinery that produces electromagnetic vibrations is all locked in phase. Everything is moving in unison and whacking on the planet simultaneously and the planet actually hums at 60 cycles.

T: What do you feel are the prospects for a beneficial technology and who do you think are the sources for actually producing it?

E: It seems to me that the best place to start is with Viktor Schauberger and Wilhelm Reich. There's not really too many people doing anything real these days. There's a lot of people making claims.

T: The only other person I'm in touch with besides yourself who is actually producing something that works is Trevor James Constable. He's really figured something out about how these subtle etheric flows operate on the planet and he can demonstrate it over and over again.

E: Yeah, there aren't too many around like Trevor. The same thing is with the "free energy" thing. Now that I've completely gone through all the various works I've really run across only one person who is really doing anything, and I know he doesn't want his name mentioned in public. This person is not known by anybody. All the people out there making all these claims and hoop-de-doo are frauds. Every single one of them is a fraud! And that leaves out none.

T: So basically the free energy thing is like the ELF stuff, its just a technique for getting people promoted in the public eye?

E: Right, also everyone is trying to accomplish it with bigger and bigger magnets, the favorite toys of the physicists. Free energy will never come out of magnetism unless the magnetism is tricked with hysteresis, and of course very little is understood about that. Free energy will come from the dielectric field where energy grows rather than decays, perhaps orgone energy will be the way.

T: I've been checking into the concepts of the four ethers as presented by Rudolph Steiner and the Anthroposophical schools, and Trevor Constable has shown that the Chemical or Tone ether is related to the water system of the planet and is functionally equivalent to orgone. I've found through looking into your work that this ether is also related to the dielectric field. Electromagnetism doesn't fit in and was considered a corrupted ether along with the nuclear force. These weren't natural forces.

E: In alternating current engineering the magnetic wave is the one that is consumptive and retarded, whereas the dielectric wave is productive and advanced. You could say that electromagnetism is the fundamental geometry of consumptive retardation.

T: That makes a good anology of our present society.

E: Exactly, because everything always fits together. All of our machines and apparatus and theories are extensions of our own thought patterns. Its all basically an architectural type of situation.

T: It seems as though the true promise for beneficial technology lies in the etheric, organic side, the side of life. It seems as though when one presents this information on living energy to scientists, rather than looking at it objectively, they react in a rage. Reich called this the emotional plague and his work has suffered from it. What do you think is with these scientists who refuse to face scientific verification of energies such as orgone.

E: The problem is that they are not scientists, they're not following the precepts of science. They're mystics worshipping a nuclear type of destructive energy. My contention about nuclear power plants is

that they're not there to generate energy, they serve as temples to worship this energy of decay and destruction and disease. The high laws are the laws of thermodynamics where everything must diffuse, decay and dissipate. Its quite obvious that they're pretty much worthless for generating electricity because, for one reason, they cost too much. They have to pump billions and billions of dollars into them and they hardly produce enough electricity to justify their existence, let alone break even. So they serve no practical purpose even though they were purported in the late 1950s to be so-called free energy devices. You look at the way things were in the 50s and you find its basically a death worship. That's one thing that surprises me now is that people want to get back to the 50s and relive those images.

T: So you're saying that the American Dream has turned out to be a nightmare?

E: The American Dream is to destroy the earth. We've succeeded in training everbody else how to do it too, so in case we fail they can take over where we left off.

T: I know what you mean. New Zealand's native forests are being stripped to make disposable chopsticks for the Japanese. Eric, in closing do you have any final message?

E: Tell everyone to quit their jobs and smash their televisions.

TRANSMISSION OF ELECTRICITY

Eric P. Dollard

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Part I - Electro-Magnetic Energy

A) When electro-magnetic energy is conveyed from one point in space to another point in space a closed loop is required to connect the point of generation with the point of utilization. This closed loop is called the electric circuit and consists of a boundary formed by what have become known as electric conductors. This boundary encloses a definite quantity of space.

When electro-magnetic energy flows through the space enclosed by the electric circuit phenomena take place inside the circuit material as well as the space outside this material.

Within the circuit conductor material, during the passage of electro-magnetic energy, this energy is continuously being consumed within the molecular space and converted into thermo-dynamic energy (heat). This may be represented by the passing electro-magnetic wave dragging into the electric circuit material. This drag is analogous to frictional losses and is called the resistance of the electric circuit, R.

In the space outside the circuit conductor material, during the passage of electro-magnetic energy, a condition of aetheric stress exists, which is called the electric field of the electric circuit. The energy contained by the electric field is continuously being transferred through this space from the point of generation which supplies energy to the electric field to the point of utilization which abstracts energy from the electric filed.

The electric field of the circuit exerts physical magnetic and dielectric actions. The magnetic action is orientated parallel to the surface of the conductor material (in its immediate vicinity). That is, a needle shaped magnetic body tends to set itself in a direction parallel to the surface of the conductor material.

The dielectric action is orientated perpendicular to the surface of the conductor material (in its immediate vicinity). That is, a needle shaped dielectric body tends to set itself in a direction perpendicular to the surface of the conductor material

Thus, the electric field of the circuit, over which passes the flow of electro-magnetic energy, has three fundamental axes which are at right angles with each other:

The dielectric axis, perpendicular to the conductor surface,

The magnetic axis, parallel to the conductor surface,

The electro-magnetic axis, co-axial with the direction of the electric circuit.

The space outside of the conductor material, bounded by the electric circuit, has the property of propagating a wavefront of light at a definite velocity, C. This velocity is a characteristic property of the aether in which the electric circuit exists. The inverse square of this velocity is called the capacitance of the electric circuit.

$$C = \frac{1}{c^2} \qquad (4\pi 10^{-9} p)^{-1} \text{ farads}$$

The capacitance is a measure of the ability to store energy in the dielectric field of induction, of the electric circuit.

The quantity of space enclosed by the bounding electric circuit is proportional to the total length of the electric circuit, l_1, multiplied by the distance between the bounding conductors, l_2.

$$l_1 \; l_2 = l_0^2 \qquad (\text{centimetre})^2$$

and has the dimensions of an area. This area in square centimetres defines what is called the inductance of the electric circuit.

$$l_0^2 = L \qquad 4\pi 10^{-9} p \text{ Henrys}$$

The inductance is a measure of the ability to store energy in the magnetic field of induction of the electric circuit.

Together, the capacitance and the inductance representing the dielectric and magnetic fields of induction of the electric circuit, serve as a measure of the propagation characteristics of the electric circuit for the transmission of electro-magnetic energy.

ENERGY RETURNS TO MAGNETIC FORM

The powerful currents produced by the sudden expansion of a dielectric field naturally give rise to magnetic energy. The inertia of the magnetic field limits the rise of current to a realistic value. The capacitance dumps all its energy back into the magnetic field and the whole process starts over again. The inverse of the product of magnetic storage capacity and dielectric storage capacity represents the frequency or pitch at which this energy interchange occurs. This pitch may or may not contain overtones depending on the extent of conductors bounding the energies.

CHARACTERISTIC IMPEDANCE AS REPRESENTATION OF PULSATION OF ENERGY FIELD

The ratio of magnetic storage ability to that of the dielectric is called the characteristic impedance. This gives the ratio of maximum voltage to maximum current in the oscillatory structure. However, as the magnetic energy storage is outward and the dielectric storage is inward the total or double energy field pulsates in shape or size. The axis of this pulsation of force is the impedance of the system displaying oscillations and pulsation occurs at the frequency of oscillation.

ENERGY INTO MATTER

As the voltage or impedance is increased the emphasis is on the inward flux. If the impedance is high and rate of change is fast enough (perfect overtone series), it would seem possible the compression of the energy would transform it into matter and the reconversion of this matter into energy may or may not synchronize with the cycle of oscillation. This is what may be considered supercapacitance, that is, stable long term conversion into matter.

MISCONCEPTIONS OF PRESENT THEORY OF CAPACITANCE

The misconception that capacitance is the result of accumulating electrons has seriously distorted our view of dielectric phenomena. Also the theory of the velocity of light as a limit of energy flow, while adequate for magnetic force and material velocity, limits our ability to visualize or understand certain possibilities in electric phenomena. The true workings of free space capacitance can be best illustrated by the following example. It has been previously stated that dielectric lines of force must terminate on conductors. No line of force can end in space. If we take any conductor and remove it to the most remote portion of the universe, no lines of force can extend from this electrode to other conductors. It can have no free space capacity, regardless of the size of the electrode, therefore it can store no energy. This indicates that the free space capacitance of an object is the sum mutual capacity of it to all the conducting objects of the universe.

FREE SPACE INDUCTANCE IS INFINITE

Steinmetz in his book on the general or unified behavior of electricity *THE THEORY AND CALCULATION OF TRANSIENT ELECTRIC PHENOMENA AND OSCILLATION*, points out that the inductance of any unit length of an isolated filamentary conductor must be infinite. Because no image currents exist to contain the magnetic field it can grow to infinite size. This large quantity of energy cannot be quickly retrieved due to the finite velocity of propagation of the magnetic field. This gives a non reactive or energy component to the inductance which is called electromagnetic radiation.

WORK OF TESLA, STEINMETZ AND FARADAY

In the aforementioned books of Steinmetz he develops some rather unique equations for capacity. Tesla devoted an enormous portion of his efforts to dielectric phenomena and made numerous remarkable discoveries in this area. Much of this work is yet to be fully uncovered. It is my contention that the phenomena of dielectricity is wide open for profound discovery. It is ironic that we have abandoned the lines of force concept associated with a phenomena measure in the units called farads after Faraday, whose insight into forces and fields has led to the possibility of visualization of the electrical phenomena.

QUESTION AS TO THE VELOCITY OF DIELECTRIC FLUX

It has been stated that all magnetic lines of force must be closed upon themselves, and that all dielectric lines of force must terminate upon a conducting surface. It can be inferred from these two basic laws that no line of force can terminate in free space. This creates an interesting question as to the state of dielectric flux lines before the field has had time to propagate to the neutral conductor. During this time it would seem that the lines of force, not having reached the distant neutral conductor would end in space at their advancing wave front. It could be concluded that either the lines of force propagate instantly or always exists and are modified or conjugate space exists within the same boundaries as ordinary space. The properties of lines of force within this conjugate space may not obey the laws of normally conceived space.

IMPORTANT REFERENCE MATERIAL

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