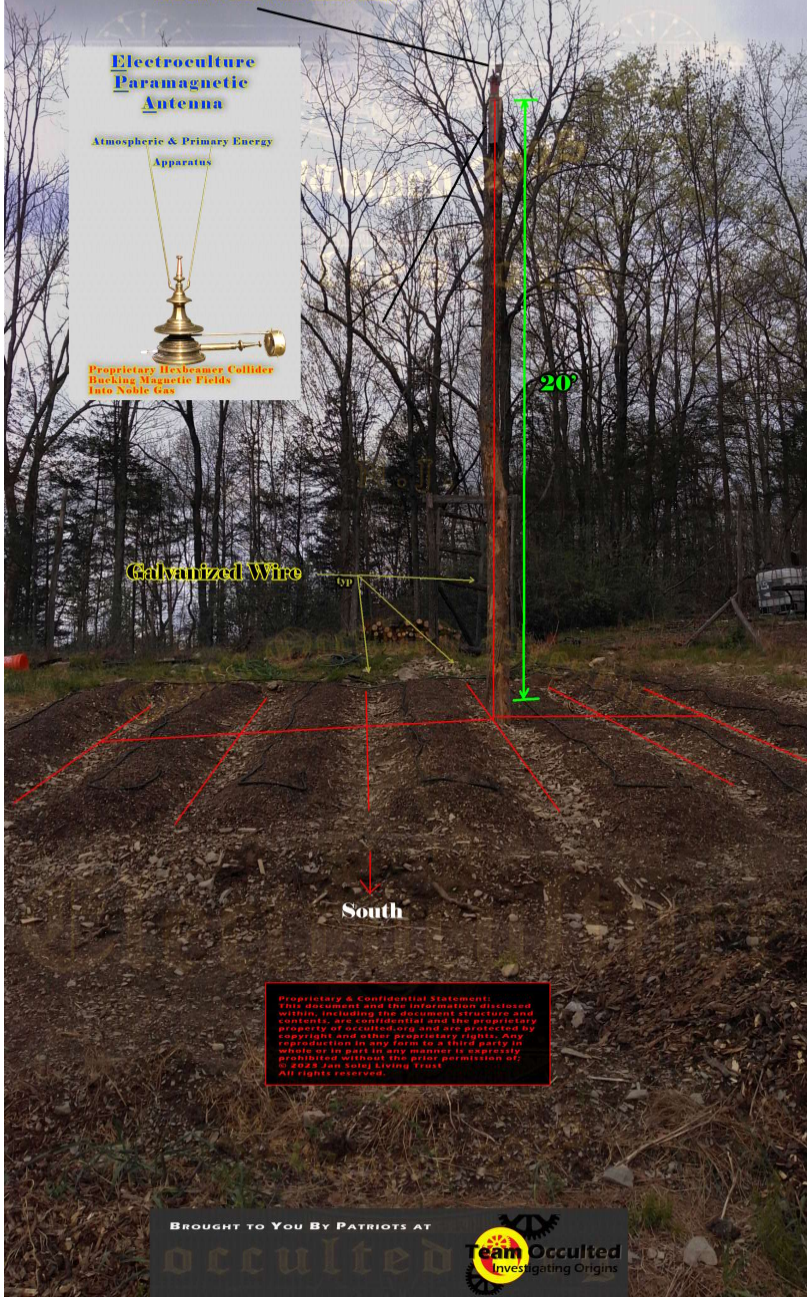
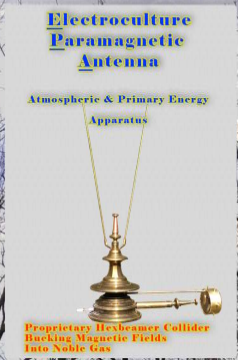


Electroculture Revamped 2023  
Revised Edition



# Electroculture

EPA Collector Antenna



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Abstract:

Utilizing the three step Trivium formula, Electroculture will be investigated, data collected, solutions peer reviewed, and with any hope, the reader educated on the concepts.

This document contains relevant information but is far from a proper research paper. There is no table of contents, index, or glossary. Utilizing a proved suppressed technology, the author hopes to invigorate the reader to seek the truth as to why such a technology would be covered up and kept from the public.

*"He who commands the sea has command of everything."*

*-Themistocles (/θə'mɪstəkli:z/; Greek: Θεμιστοκλῆς; c. 524 – c. 459 BC*

## I.GRAMMAR

Answer the 5 W's of ELECTROCULTURE

- Who = Nollet/Bertholon/ Lenstrom/ Christofleau/ France\*/ Lakhovsky/ Schauberger/ <---Primary Contributors
- /Cooke /Feynman
- What = Using **atmospheric electricity** <--- See Richard P. Feynman
- When = References dating to 1700's; author speculates much earlier; 1747 Jean Antoine Nollet
- Where = US, UK, Denmark, Netherlands, Switzerland, Belgium, Sweden - worldwide
- Why = Fertilize soil & charge water & more!

\* <https://www.khi.fi.it/en/forschung/4a-laboratory/2019-20/carlotta-castellani-plants-as-inventors.php>

What Electroculture is **NOT**

- Use of Standard Electricity in application into soil or air DC or AC, that is just electrification.
- Supported by Governments, Big Pharma, Mass Media, Academia
- New, it is not New

**Note: None of the images or ideas herein are AI created, no AI algorithm was used in any part of this document.**

## Introduction

In our journey digging through history, we stumbled upon an article showing harvested crops of gargantuan proportions. This was placed into a folder with a thousand images, notes on research, and ultimately lost in translation. Finally, after many years of small discoveries on the matters a synthesis of technologies began to emerge that could now be presented to inquiring readers.

Hands deep in soil, the author now had a background from which to deploy any fantasies of growing produce that to epic proportions. The idea of growing one seed, as opposed to a whole row, and fulfill the yield of a whole row, could now be entertained as the investigation deepens into Research and Development. A second prototype is in the works that will include a scalar beam Primary Energy apparatus, changing the playing field significantly as the device is unique patent pending design of the author. This will allow full patent rights for the entirety of the device as it has been completely transformed and updated from it's original design by Christofleau. Parties are encouraged to stay tuned to the resulting yield of the garden this year, to ascertain for themselves their level of interest. Also, keep in mind that folks that come up with inventions that are in opposition to the control system tend to disappear, so if this hits the fancy TV box news I'm a be ghost.

My motivation for writing this article is to denounce the liars and deceivers of this world that control our institutions and the voices of authority to which the common man turns to as information accepted commonly true and proven. This document is proof of conspiracy against humanity by the few who have determined we are not worthy of liberty, freedom, or everlasting life.

The figures in this world whom have asserted themselves as authorities over the people, are part of a ponzi scheme orchestrated since the very beginning of our civilization by our progenitors. The two sided system which incorrectly polarizes humans against each other, can still be rectified and right sided by simply exiting the false system of reality promulgated by false teachers who aim to enslave humans.

We do not need centralized systems of power, control, or health as all are contained within the living being and the plants within our immediate vicinity. Look at the internet and the way Microsoft structured their networking technologies around an Active Directory with absolute centralized control from a single source. The occultist Bill Gates did not invent anything, he is merely a heir to histories bloodline of brutality against humanity. All silicon giants are just proxies, deployed by the beast system. These tall tales of kids starting up in garages and creating entire monopolies of control systems are as fictitious as the rest of the lies they taught us in school.

Their KJV Holy Bible ringing in allegorical truth, requiring decryption techniques to receive the true message encoded only for initiates. Just another control system of using lies mixed with truth to usurp the creation source from its true point, the dipole. This author urges the reader to be shaken within by the logos\* of truth, which does not require belief like a religion, it is everlasting and continues without the need of our acknowledgement.

Only when the multitude realize the scope of the fraud, can we begin the disassembly of the fraudulent systems, defacto government, and return to the harmonious order of natural law.

This change starts with each individual standing strong as a leader by example, needing nothing from the corporate oligarchy. Don't need the stores, don't need consumer products, don't need the fake material existence. Everything we need is right in our hearts and our local vicinity in terms of the natural

resources required for harmonious sustenance.

Join the awakening of another golden era in human enlightenment, a true era of inclusion for all life to the same degree of grace and respectability. The beast system is already failing, that is why they are expediting their beast control systems of digital currency, mandated eugenics (vaccines). This is not a new agenda, it has been in place and forced on the population since inception. The author hopes his message to fall on the ears of friends and neighbors to encourage them to seek the truth outside of the confines of their TeleVision programming.

[The word television comes from Ancient Greek τῆλε (tele) 'far', and Latin visio 'sight']

They should of called TV; snake eyes designed to hypnotize you into a mind controlled slave. Keep you wanting all the new things every commercial and suggestive selling induce consumers to buy, buy, buy!

#### \* Origins of the term

Logos became a technical term in Western philosophy beginning with Heraclitus (c. 535 – c. 475 BC), who used the term for a principle of order and knowledge.[7] Ancient Greek philosophers used the term in different ways. The sophists used the term to mean discourse. Aristotle applied the term to refer to "reasoned discourse"[8] or "the argument" in the field of rhetoric, and considered it one of the three modes of persuasion alongside ethos and pathos.[9] Pyrrhonist philosophers used the term to refer to dogmatic accounts of non-evident matters. The Stoics spoke of the logos spermatikos (the generative principle of the Universe) which foreshadows related concepts in Neoplatonism.[10]

Within Hellenistic Judaism, Philo (c. 20 BC – c. 50 AD) integrated the term into Jewish philosophy.[11] Philo distinguished between logos prophorikos ("the uttered word") and the logos endiathetos ("the word remaining within").[12]

The Gospel of John identifies the Christian Logos, through which all things are made, as divine (theos),[13] and further identifies Jesus Christ as the incarnate Logos. Early translators of the Greek New Testament, such as Jerome (in the 4th century AD), were frustrated by the inadequacy of any single Latin word to convey the meaning of the word logos as used to describe Jesus Christ in the Gospel of John. The Vulgate Bible usage of in principio erat verbum was thus constrained to use the (perhaps inadequate) noun verbum for "word"; later Romance language translations had the advantage of nouns such as le Verbe in French. Reformation translators took another approach. Martin Luther rejected Zeitwort (verb) in favor of Wort (word), for instance, although later commentators repeatedly turned to a more dynamic use involving the living word as used by Jerome and Augustine.[14] The term is also used in Sufism, and the analytical psychology of Carl Jung.

Despite the conventional translation as "word", logos is not used for a word in the grammatical sense—for that, the term lexis (λέξις, léxis) was used.[15] However, both logos and lexis derive from the same verb légō (λέγω), meaning "(I) count, tell, say, speak".[2][15][16]

# Grows Huge Crops with Aid of Electricity

## French Wizard Discovers Amazing New Method of Farming

By Alfred Gradenwitz



A Modern Magic Wand

G. Fritzsche, German scientist, with experimental apparatus patterned after Christoforeau's invention for speeding the growth of plants by means of electricity drawn from the air, the earth, and the sun. The spiked arrangement at the top is an antenna that collects atmospheric electricity. The metal pointer on the pole utilizes the flow of terrestrial magnetism. In the center of the antenna is a thermocouple, which converts the sun's heat into electric current. All the electricity gathered by these processes is led into the ground by the wire shown at side of post

A POLICE magistrate investigating the strange disappearance of a man in Brittany, France, not long ago, received an odd letter from a peasant in the little Norman hamlet of La-Queue-les-Yvelines. The missing man had been murdered, the peasant wrote, and his body had been buried on the farm of Justin Christoforeau, who was described by the writer as a "servant of Satan."

Following the clue, the magistrate visited Christoforeau's farm. He found no body; yet the result of his call was startling. He found that Christoforeau was exactly what his superstitious neighbors had declared him to be—a wizard. His wizardry, however, was not of the malignant kind, but entirely practical and based on scientific principles. For this obscure French peasant has developed a new process of agriculture.

He is utilizing the magnetism of the earth, the electricity of the air, and electricity from the heat of the sun by ingenious apparatus to speed the growth of his plants. And he has accelerated the growth of normal plants, rejuvenated

barren trees, grown crops such as never before have been seen in the vicinity.

Electricity, of course, has been used before in attempts to stimulate the growth of plants. Also, although other experimenters have sought to use atmospheric electricity for the purpose, their results have been inconclusive, possibly because of the neglect of important factors

designed to gather atmospheric electricity.

There is also a metal cylinder of copper and zinc strips soldered together, which converts the heat of the sun into electric current through the thermocouple principle.

It long has been known that when two metals of different degrees of heat conductivity are joined and subjected to heat, an electric current is generated. Christoforeau, however, makes use of this principle in a highly ingenious manner. For, in addition to the current generated by the apparatus itself, a similar effect is obtained between the walls of the cylinder and a set of rotating vanes outside, the latter cooling the exterior of the cylinder while the interior remains relatively warm.

All of the electromagnetic energy collected and generated by the apparatus, from the sun, the air, and the earth, is led to the ground by galvanized-iron wires, which extend down the poles. The poles are set about 10 feet apart and the wires from them pass through the ground for about 1000 yards.

According to Christoforeau, the accumulated electricity that reaches the earth destroys harmful parasites, at the same time fertilizing the earth by promoting beneficial chemical processes.



Grown by Electricity

The pear tree above had not borne fruit for years, until stimulated by Christoforeau's electrical apparatus. The strawberries at the left, grown electrically, are twice as large as ordinary berries



such as the flux of magnetism in the earth.

Terrestrial magnetism long has been believed to exert a stimulating effect on organic life. Thus, you may have heard it said that many persons sleep most soundly in a bed that points from north to south, with the foot to the south. For this reason Christoforeau has placed his apparatus in a north-south direction.

His apparatus consists of a number of 25-foot wooden poles, sunk in the ground. On the top of each pole is a metal pointer directed to the south to take all possible advantage of terrestrial currents. Each pole contains an antenna,



Clover Seven Feet High

Justin Christoforeau, the French farmer-wizard, holding stalks of clover which, by his remarkable method, grew seven feet high

### Common Methods of Electroculture:

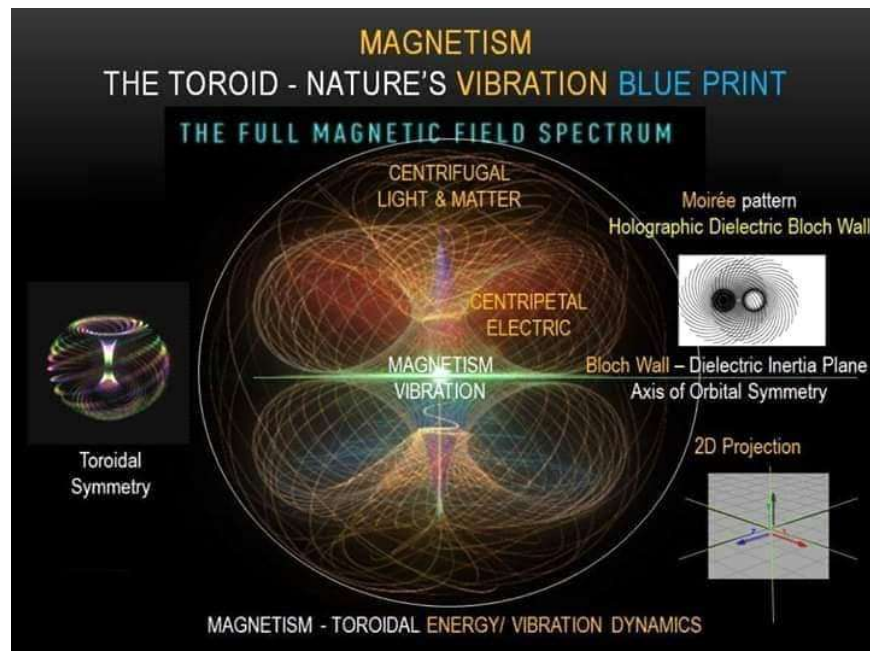
- Lakhovsky Coil/Spiral
- Electroculture Paramagnetic Antenna™ <---- Trademark 04/20/2023
- Golden Ratio Pyramid Structure

Below quote from 'The Occult World' By Alfred Percy Sinnett will be referenced through out the document, please read it carefully and understand the information imparted.

*"The occultists have been a race apart from an earlier period than we can fathom—not a separate race physically, not a uniform race physically at all, nor a nation in any sense of the word, but a continuous association of men of the highest intelligence linked together by a bond stronger than any other tie of which mankind has experience, and carrying on with a perfect continuity of purpose the studies and traditions and mysteries of self-development handed down to them by their predecessors.*

*All this time the stream of civilization, on the foremost waves of which the culture of modern Europe is floating, has been wholly and absolutely neglectful of the one study with which the occultists have been solely engaged. What wonder that the two lines of civilization have 'diverged so far apart that their forms are now entirely unlike each other."*

## II.LOGIC



*"All life has its secret in dipolarity. Without opposite poles there can be no attraction, and no repulsion. Without attraction and repulsion there can be no movement, and without the latter, no life. Light calls for darkness, because without darkness it would have no meaning. The alternation of warmth and cold, of day and night is also of greatest importance to our planet. While one side of the earth is cooling, its other side is getting warmer. These temperature differences produce a constant flux which results in a spiral rotation just as it happens with hot and cold air fronts whose meeting results in cyclones and hurricanes. There are even differences in the earth's weight, because on its warm side the weight increase is absolute and on the cold side specific. This, together with the magnetic forces, produces a declining rotational movement. The temperature differences exert a constant pressure which sets the masses in motion as it seeks compensation.*

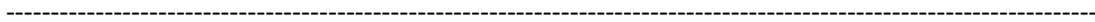
*The counterpart of heat is cold; of the negative - positive;"*

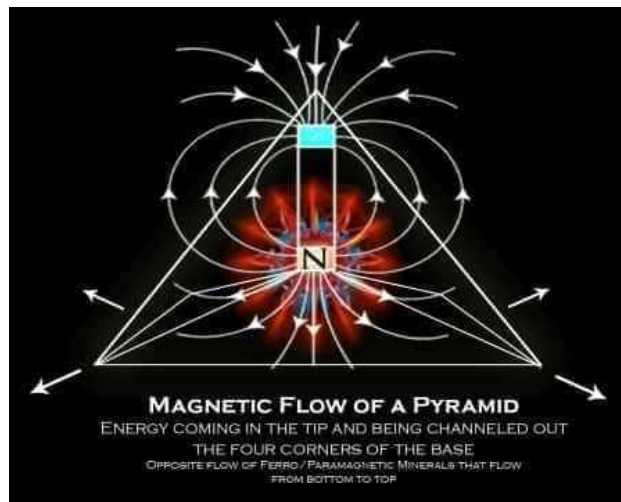
### IMPLOSION INSTEAD OF EXPLOSION

Viktor Schauberger and his Discoveries

By Leopold Brandstatter

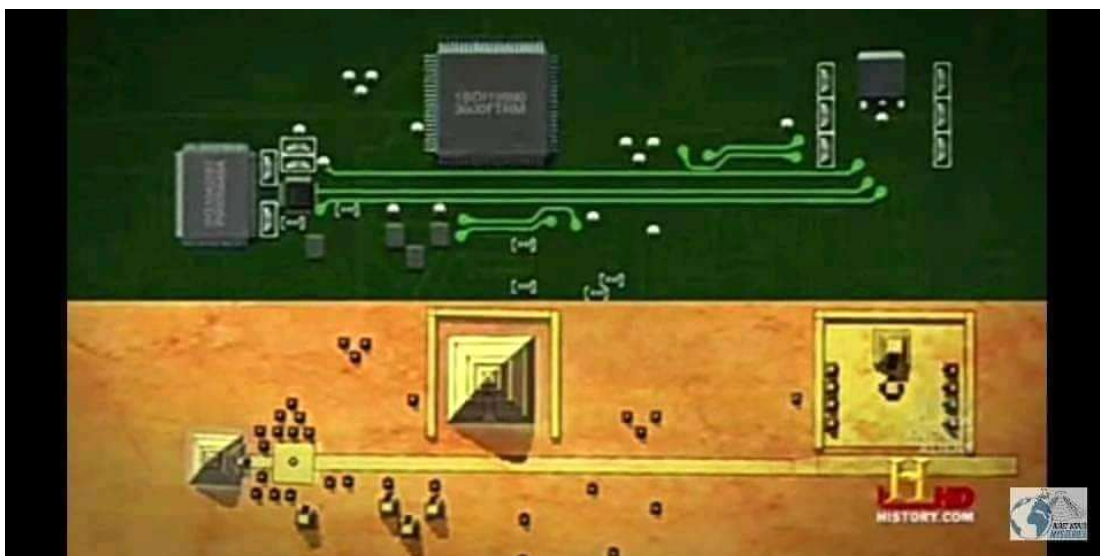
The Natural Solution to the Energy Problem Through Diamagnetism and Etheric Forces, Second Edition, 1955



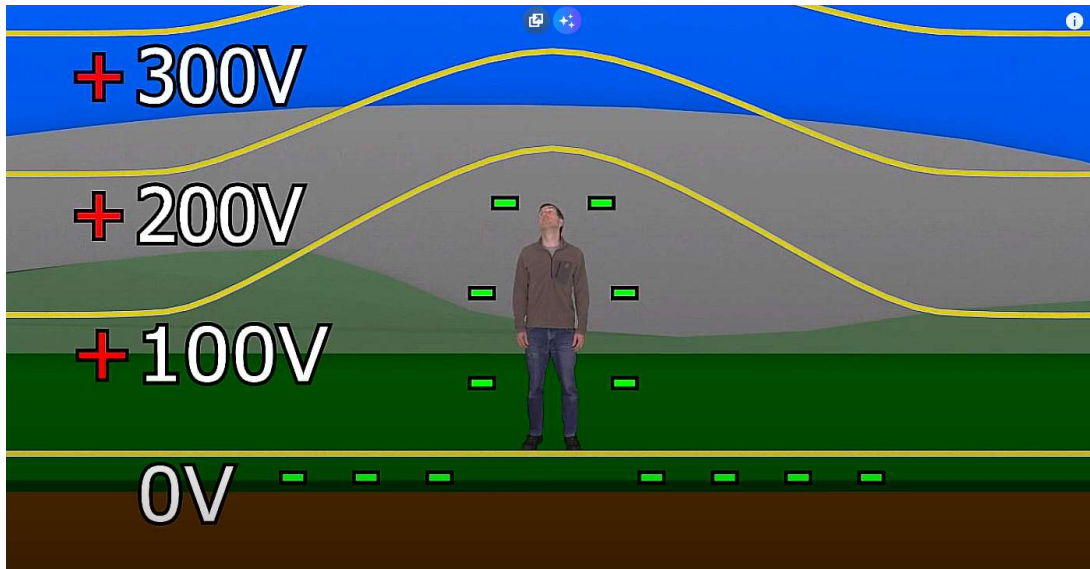


Pyramid structures provide for strong collection and transmission points for atmospheric and aetheric energy. Their structure when adhered to the ancients golden ratio formula, are inherently paramagnetic and highly conducive to EM field manipulation. The technologies, science and math have been covered on our website and are located on their own page <http://occulted.org/occulted-pyramid-builders/> which overviews the subject to some extent.

It does not appear that the pyramid structure will be a part of this years R&D experiments, and the author hopes the document inspires readers to pursue this task and report on the findings with Team Occulted. Since it will not be a part of this years study, the above provided link will be the extent of coverage on this matter at the moment.



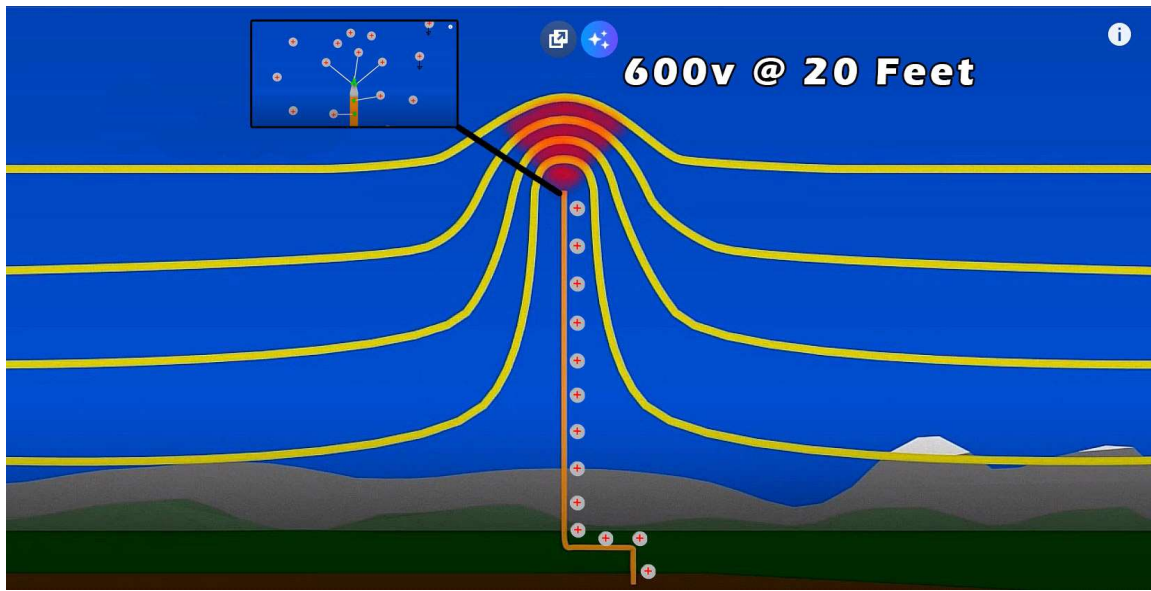
## Atmospheric Electricity



$E = 100 \text{ V/M}$  see Dr. Feynmans Lectures lower in the article\*

The PAE or EPA (**P**aramagnetic **A**ntenna for **E**lectroculture) sits at 6.1 Meters (20') = 600V

Volts are like the pressure that pushes the water through the hose, in this case the hose is very small, so the pressure basically remains contained invisibly. There is a weak conduction current of atmospheric ions moving in the atmospheric electric field, about 2 picoamperes per square meter, and the air is weakly conductive due to the presence of these atmospheric ions. With the PAE antenna collector, your giving this potential a trickle path to the ground where it collects along the galvanized cable providing necessary stimuli to the soil, which translates to lots of food for the plants, available in abundance.



Steady stream of electrons into the soil feeding the bacteria that in turn convert the electrons to soil nitrogen. This the plants feed on in constant supply allowing hearty yields. The gig is up NWO, we don't need nothing from your fabricated natural resource shortages. We got everything we need right here.

Richard P. Feynman; Famous physicist, educator, on Atmospheric Electricity;

## Electricity in the Atmosphere

### 9-1 The electric potential gradient of the atmosphere

On an ordinary day over flat desert country, or over the sea, as one goes upward from the surface of the ground the electric potential increases by about 100 volts per meter. Thus there is a vertical electric field  $E$  of 100 volts/m in the air. The sign of the field corresponds to a negative charge on the earth's surface. This means that outdoors the potential at the height of your nose is 200 volts higher than the potential at your feet! You might ask: "Why don't we just stick a pair of electrodes out in the air one meter apart and use the 100 volts to power our electric lights?" Or you might wonder: "If there is *really* a potential difference of 200 volts between my nose and my feet, why is it I don't get a shock when I go out into the street?"

We will answer the second question first. Your body is a relatively good conductor. If you are in contact with the ground, you and the ground will tend to make one equipotential surface. Ordinarily, the equipotentials are parallel to the surface, as shown in Fig. 9-1(a), but when you are there, the equipotentials are distorted, and the field looks somewhat as shown in Fig. 9-1(b). So you still have very nearly zero potential difference between your head and your feet. There are charges that come from the earth to your head, changing the field. Some of them may be discharged by ions collected from the air, but the current of these is very small because air is a poor conductor.

### 9-1 The electric potential gradient of the atmosphere

### 9-2 Electric currents in the atmosphere

### 9-3 Origin of the atmospheric currents

### 9-4 Thunderstorms

### 9-5 The mechanism of charge separation

### 9-6 Lightning

Reference: Chalmers, J. Alan, *Atmospheric Electricity*, Pergamon Press, London (1957).

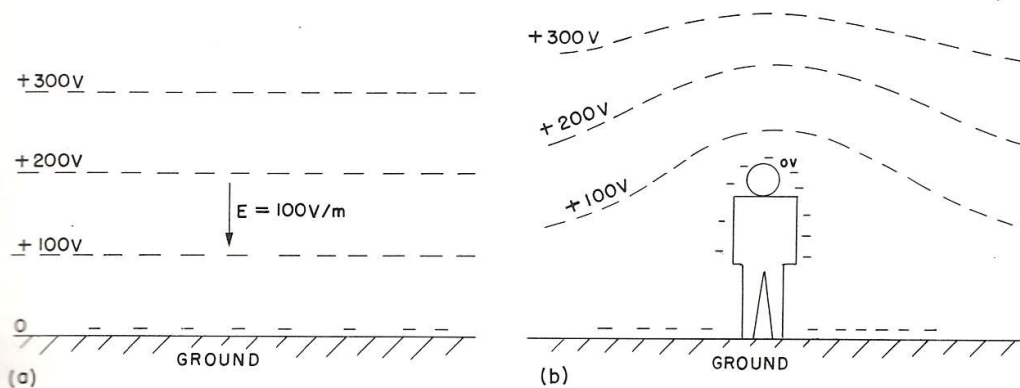


Fig. 9-1. (a) The potential distribution above the earth. (b) The potential distribution near a man in an open flat place.

How can we measure such a field if the field is changed by putting something there? There are several ways. One way is to place an insulated conductor at some distance above the ground and leave it there until it is at the same potential as the air. If we leave it long enough, the very small conductivity in the air will let the charges leak off (or onto) the conductor until it comes to the potential at its level. Then we can bring it back to the ground, and measure the shift of its potential as we do so. A faster way is to let the conductor be a bucket of water with a small leak. As the water drops out, it carries away any excess charges and the bucket will approach the same potential as the air. (The charges, as you know, reside on the surface, and as the drops come off "pieces of surface" break off.) We can measure the potential of the bucket with an electrometer.

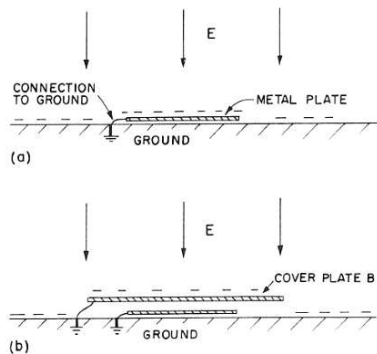


Fig. 9-2. (a) A grounded metal plate will have the same surface charge as the earth. (b) If the plate is covered with a grounded conductor it will have no surface charge.

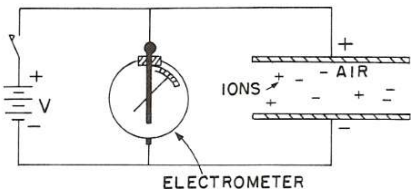


Fig. 9-3. Measuring the conductivity of air due to the motion of ions.

There is another way to directly measure the potential *gradient*. Since there is an electric field, there is a surface charge on the earth ( $\sigma = \epsilon_0 E$ ). If we place a flat metal plate at the earth's surface and ground it, negative charges appear on it (Fig. 9-2a). If this plate is now covered by another grounded conducting cover *B*, the charges will appear on the cover, and there will be no charges on the original plate *A*. If we measure the charge that flows from plate *A* to the ground (by, say, a galvanometer in the grounding wire) as we cover it, we can find the surface charge density that was there, and therefore also find the electric field.

Having suggested how we can measure the electric field in the atmosphere, we now continue our description of it. Measurements show, first of all, that the field continues to exist, but gets weaker, as one goes up to high altitudes. By about 50 kilometers, the field is very small, so most of the potential change (the integral of *E*) is at lower altitudes. The total potential difference from the surface of the earth to the top of the atmosphere is about 400,000 volts.

## 9-2 Electric currents in the atmosphere

Another thing that can be measured, in addition to the potential gradient, is the current in the atmosphere. The current density is small—about 10 micromicroamperes crosses each square meter parallel to the earth. The air is evidently not a perfect insulator, and because of this conductivity, a small current—caused by the electric field we have just been describing—passes from the sky down to the earth.

Why does the atmosphere have conductivity? Here and there among the air molecules there is an ion—a molecule of oxygen, say, which has acquired an extra electron, or perhaps lost one. These ions do not stay as single molecules; because of their electric field they usually accumulate a few other molecules around them. Each ion then becomes a little lump which, along with other lumps, drifts in the field—moving slowly upward or downward—making the observed current. Where do the *ions* come from? It was first guessed that the ions were produced by the radioactivity of the earth. (It was known that the radiation from radioactive materials would make air conducting by ionizing the air molecules.) Particles like  $\beta$ -rays coming out of the atomic nuclei are moving so fast that they tear electrons from the atoms, leaving ions behind. This would imply, of course, that if we were to go to higher altitudes, we should find less ionization, because the radioactivity is all in the dirt on the ground—in the traces of radium, uranium, potassium, etc.

To test this theory, some physicists carried an experiment up in balloons to measure the ionization of the air (Hess, in 1912) and discovered that the opposite was true—the ionization per unit volume *increased* with altitude! (The apparatus was like that of Fig. 9-3. The two plates were charged periodically to the potential *V*. Due to the conductivity of the air, the plates slowly discharged; the rate of discharge was measured with the electrometer.) This was a most mysterious result—the most dramatic finding in the entire history of atmospheric electricity. It was so dramatic, in fact, that it required a branching off of an entirely new subject—cosmic rays. Atmospheric electricity itself remained less dramatic. Ionization was evidently being produced by something from outside the earth; the investigation of this source led to the discovery of the cosmic rays. We will not discuss the subject of cosmic rays now, except to say that they maintain the supply of ions. Although the ions are being swept away all the time, new ones are being created by the cosmic-ray particles coming from the outside.

To be precise, we must say that besides the ions made of molecules, there are also other kinds of ions. Tiny pieces of dirt, like extremely fine bits of dust, float in the air and become charged. They are sometimes called "nuclei." For example, when a wave breaks in the sea, little bits of spray are thrown into the air. When one of these drops evaporates, it leaves an infinitesimal crystal of NaCl floating in the air. These tiny crystals can then pick up charges and become ions; they are called "large ions."

The small ions—those formed by cosmic rays—are the most mobile. Because they are so small, they move rapidly through the air—with a speed of about 1

cm/sec in a field of 100 volts/meter, or 1 volt/cm. The much bigger and heavier ions move much more slowly. It turns out that if there are many "nuclei," they will pick up the charges from the small ions. Then, since the "large ions" move so slowly in a field, the total conductivity is reduced. The conductivity of air, therefore, is quite variable, since it is very sensitive to the amount of "dirt" there is in it. There is much more of such dirt over land—where the winds can blow up dust or where man throws all kinds of pollution into the air—than there is over water. It is not surprising that from day to day, from moment to moment, from place to place, the conductivity near the earth's surface varies enormously. The voltage gradient observed at any particular place on the earth's surface also varies greatly because roughly the same current flows down from high altitudes in different places, and the varying conductivity near the earth results in a varying voltage gradient.

The conductivity of the air due to the drifting of ions also increases rapidly with altitude—for two reasons. First of all, the ionization from cosmic rays increases with altitude. Secondly, as the density of air goes down, the mean free path of the ions increases, so that they can travel farther in the electric field before they have a collision—resulting in a rapid increase of conductivity as one goes up.

Although the electric current-density in the air is only a few micromicro-amperes per square meter, there are very many square meters on the earth's surface. The total electric current reaching the earth's surface at any time is very nearly constant at 1800 amperes. This current, of course, is "positive"—it carries plus charges to the earth. So we have a voltage supply of 400,000 volts with a current of 1800 amperes—a power of 700 megawatts!

With such a large current coming down, the negative charge on the earth should soon be discharged. In fact, it should take only about half an hour to discharge the entire earth. But the atmospheric electric field has already lasted more than a half-hour since its discovery. How is it maintained? What maintains the voltage? And between what and the earth? There are many questions.

The earth is negative, and the potential in the air is positive. If you go high enough, the conductivity is so great that horizontally there is no more chance for voltage variations. The air, for the scale of times that we are talking about, becomes effectively a conductor. This occurs at a height in the neighborhood of 50 kilometers. This is not as high as what is called the "ionosphere," in which there are very large numbers of ions produced by photoelectricity from the sun. Nevertheless, for our discussions of atmospheric electricity, the air becomes sufficiently conductive at about 50 kilometers that we can imagine that there is practically a perfect conducting surface at this height, from which the currents come down. Our picture of the situation is shown in Fig. 9-4. The problem is: How is the positive charge maintained there? How is it pumped back? Because if it comes down to the earth, it has to be pumped back somehow. That was one of the greatest puzzles of atmospheric electricity for quite a while.

Each piece of information we can get should give a clue or, at least, tell you something about it. Here is an interesting phenomenon: If we measure the current (which is more stable than the potential gradient) over the sea, for instance, or in careful conditions, and average very carefully so that we get rid of the irregularities, we discover that there is still a daily variation. The average of many measurements over the oceans has a variation with time roughly as shown in Fig. 9-5. The current varies by about  $\pm 15$  percent, and it is largest at 7:00 P.M. in London. The strange part of the thing is that no matter *where* you measure the current—in the Atlantic Ocean, the Pacific Ocean, or the Arctic Ocean—it is at its peak value when the clocks in *London* say 7:00 P.M.! All over the world the current is at its maximum at 7:00 P.M. London time and it is at a minimum at 4:00 A.M. London time. In other words, it depends upon the absolute time on the earth, *not* upon the local time at the place of observation. In one respect this is not mysterious: it checks with our idea that there is a very high conductivity laterally at the top, because that makes it impossible for the voltage difference from the ground to the top to vary locally. Any potential variations should be worldwide, as indeed they are. What we now know, therefore, is that the voltage at the "top" surface is dropping and rising by 15 percent with the absolute time on the earth.

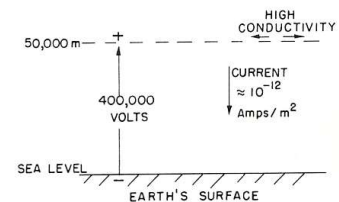


Fig. 9-4. Typical electrical conditions in a clear atmosphere.

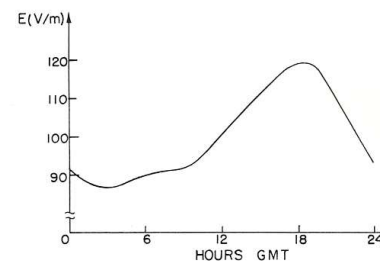


Fig. 9-5. The average daily variation of the atmospheric potential gradient on a clear day over the oceans; referred to Greenwich time.

### 9-3 Origin of the atmospheric currents

We must next talk about the source of the large negative currents which must be flowing from the “top” to the surface of the earth to keep charging it up negatively. Where are the batteries that do this? The “battery” is shown in Fig. 9-6. It is the thunderstorm and its lightning. It turns out that the bolts of lightning do not “discharge” the potential we have been talking about (as you might at first guess). Lightning storms carry *negative* charges to the earth. When a lightning bolt strikes, ten-to-one it brings down negative charges to the earth in large amounts. It is the thunderstorms throughout the world that are charging the earth with an average of 1800 amperes, which is then being discharged through regions of fair weather.

There are about 300 thunderstorms per day all over the earth, and we can think of them as batteries pumping the electricity to the upper layer and maintaining the voltage difference. Then take into account the geography of the earth—there are thunderstorms in the afternoon in Brazil, tropical thunderstorms in Africa, and so forth. People have made estimates of how much lightning is striking world-wide at any time, and perhaps needless to say, their estimates more or less agree with the voltage difference measurements: the total amount of thunderstorm activity is highest on the whole earth at about 7:00 P.M. in London. However, the thunderstorm estimates are very difficult to make and were made only *after* it was known that the variation should have occurred. These things are very difficult because we don't have enough observations on the seas and over all parts of the world to know the number of thunderstorms accurately. But those people who think they “do it right” obtain the result that there is a peak in the activity at 7:00 P.M. Greenwich Mean Time.



Fig. 9-6. The mechanism that generates the atmospheric electric field. [Photo by William L. Widmayer.]

In order to understand how these batteries work, we will look at a thunderstorm in detail. What is going on inside a thunderstorm? We will describe this insofar as it is known. As we get into this marvelous phenomenon of real nature—instead of the idealized spheres of perfect conductors inside of other spheres that we can solve so neatly—we discover that we don't know very much. Yet it is really quite exciting. Anyone who has been in a thunderstorm has enjoyed it, or has been frightened, or at least has had some emotion. And in those places in nature where we get an emotion, we find that there is generally a corresponding complexity and mystery about it. It is not going to be possible to describe exactly how a thunderstorm works, because we do not yet know very much. But we will try to describe a little bit about what happens.

#### 9-4 Thunderstorms

In the first place, an ordinary thunderstorm is made up of a number of "cells" fairly close together, but almost independent of each other. So it is best to analyze one cell at a time. By a "cell" we mean a region with a limit area in the horizontal direction in which all of the basic processes occur. Usually there are several cells side by side, and in each one about the same thing is happening, although perhaps with a different timing. Figure 9-7 indicates in an idealized fashion what such a cell looks like in the early stage of the thunderstorm. It turns out that in a certain place in the air, under certain conditions which we shall describe, there is a general rising of the air, with higher and higher velocities near the top. As the warm, moist air at the bottom rises, it cools and condenses. In the figure the little crosses indicate snow and the dots indicate rain, but because the updraft currents are great enough and the drops are small enough, the snow and rain do not come down at this stage. This is the beginning stage, and not the real thunderstorm yet—in the sense that we don't have anything happening at the ground. At the same time that the warm air rises, there is an entrainment of air from the sides—an important point which was neglected for many years. Thus it is not just the air from below which is rising, but also a certain amount of other air from the sides.

Why does the air rise like this? As you know, when you go up in altitude the air is colder. The *ground* is heated by the sun, and the re-radiation of heat to the sky comes from water vapor high in the atmosphere; so at high altitudes the air is cold—very cold—whereas lower down it is warm. You may say, "Then it's very simple. Warm air is lighter than cold; therefore the combination is mechanically unstable and the warm air rises." Of course, if the temperature is different at different heights, the air *is* unstable *thermodynamically*. Left to itself infinitely long, the air would all come to the same temperature. But it is not left to itself; the sun is always shining (during the day). So the problem is indeed not one of thermodynamic equilibrium, but of *mechanical* equilibrium. Suppose we plot—as in Fig. 9-8—the temperature of the air against height above the ground. In ordinary circumstances we would get a decrease along a curve like the one labeled (a); as the height goes up, the temperature goes down. How can the atmosphere be stable? Why doesn't the hot air below simply rise up into the cold air? The answer is this: if the air were to go up, its pressure would go down, and if we consider a particular parcel of air going up, it would be expanding adiabatically. (There would be no heat coming in or out because in the large dimensions considered here, there isn't time for much heat flow.) Thus the parcel of air would cool as it rises. Such an adiabatic process would give a temperature-height relationship like curve (b) in Fig. 9-8. Any air which rose from below would be *colder* than the environment it goes into. Thus there is no reason for the hot air below to rise; if it were to rise, it would cool to a lower temperature than the air already there, would be heavier than the air there, and would just want to come down again. On a good, bright day with very little humidity there is a certain rate at which the temperature in the atmosphere falls, and this rate is, in general, lower than the "maximum stable gradient," which is represented by curve (b). The air is in stable mechanical equilibrium.

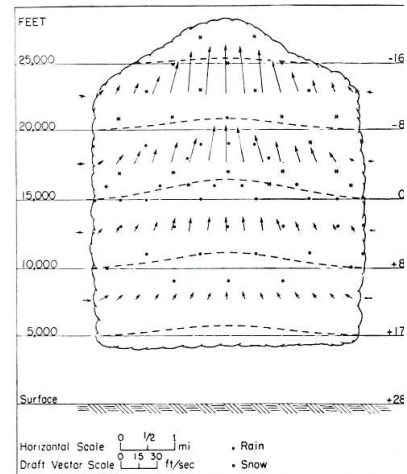


Fig. 9-7. A thunderstorm cell in the early stages of development. [From U.S. Department of Commerce Weather Bureau Report, June 1949.]

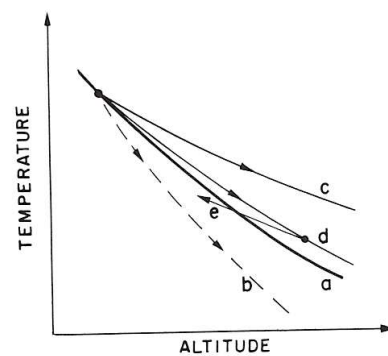


Fig. 9-8. Atmospheric temperature (a) static atmosphere; (b) adiabatic cooling of dry air; (c) adiabatic cooling of wet air; (d) wet air with some mixing of ambient air.

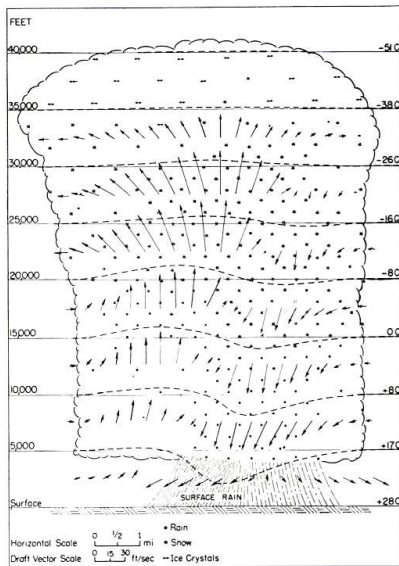


Fig. 9-9. A mature thunderstorm cell. [From U.S. Department of Commerce Weather Bureau Report, June 1949.]

On the other hand, if we think of a parcel of air that contains a lot of water vapor being carried up into the air, its adiabatic cooling curve will be different. As it expands and cools, the water vapor in it will condense, and the condensing water will liberate heat. Moist air, therefore, does not cool nearly as much as dry air does. So if air that is wetter than the average starts to rise, its temperature will follow a curve like (c) in Fig. 9-8. It will cool off somewhat, but will still be warmer than the surrounding air at the same level. If we have a region of warm moist air and something starts it rising, it will always find itself lighter and warmer than the air around it and will continue to rise until it gets to enormous heights. This is the machinery that makes the air in the thunderstorm cell rise.

For many years the thunderstorm cell was explained simply in this manner. But then measurements showed that the temperature of the cloud at different heights was not nearly as high as indicated by curve (c). The reason is that as the moist air "bubble" goes up, it entrains air from the environment and is cooled off by it. The temperature-versus-height curve looks more like curve (d), which is much closer to the original curve (a) than to curve (c).

After the convection just described gets under way, the cross section of a thunderstorm cell looks like Fig. 9-9. We have what is called a "mature" thunderstorm. There is a very rapid updraft which, in this stage, goes up to about 10,000 to 15,000 meters—sometimes even much higher. The thunderheads, with their condensation, climb way up out of the general cloud bank, carried by an updraft that is usually about 60 miles an hour. As the water vapor is carried up and condenses, it forms tiny drops which are rapidly cooled to temperatures below zero degrees. They should freeze, but do not freeze immediately—they are "supercooled." Water and other liquids will usually cool well below their freezing points before crystallizing if there are no "nuclei" present to start the crystallization process. Only if there is some small piece of material present, like a tiny crystal of NaCl, will the water drop freeze into a little piece of ice. Then the equilibrium is such that the water drops evaporate and the ice crystals grow. Thus at a certain point there is a rapid disappearance of the water and a rapid buildup of ice. Also, there may be direct collisions between the water drops and the ice—collisions in which the supercooled water becomes attached to the ice crystals, which causes it to suddenly crystallize. So at a certain point in the cloud expansion there is a rapid accumulation of large ice particles.

When the ice particles are heavy enough, they begin to fall through the rising air—they get too heavy to be supported any longer in the updraft. As they come down, they draw a little air with them and start a downdraft. And surprisingly enough, it is easy to see that once the downdraft is started, it will maintain itself. The air now drives itself down!

Notice that the curve (d) in Fig. 9-8 for the actual distribution of temperature in the cloud is not as steep as curve (c), which applies to wet air. So if we have wet air falling, its temperature will drop with the slope of curve (c) and will go *below* the temperature of the environment if it gets down far enough, as indicated by curve (e) in the figure. The moment it does that, it is denser than the environment and continues to fall rapidly. You say, "That is perpetual motion. First, you argue that the air should rise, and when you have it up there, you argue equally well that the air should fall." But it isn't perpetual motion. When the situation is unstable and the warm air should rise, then clearly something has to replace the warm air. It is equally true that cold air coming down would energetically replace the warm air, but you realize that what is coming down is *not* the original air. The early arguments, that had a particular cloud without entrainment going up and then coming down, had some kind of a puzzle. They needed the rain to maintain the downdraft—an argument which is hard to believe. As soon as you realize that there is a lot of original air mixed in with the rising air, the thermodynamic argument shows that there can be a descent of the cold air which was originally at some great height. This explains the picture of the active thunderstorm sketched in Fig. 9-9.

As the air comes down, rain begins to come out of the bottom of the thunderstorm. In addition, the relatively cold air spreads out when it arrives at the earth's surface. So just before the rain comes there is a certain little cold wind that gives

us a forewarning of the coming storm. In the storm itself there are rapid and irregular gusts of air, there is an enormous turbulence in the cloud, and so on. But basically we have an updraft, then a downdraft—in general, a very complicated process.

The moment at which precipitation starts is the same moment that the large downdraft begins and is the same moment, in fact, when the electrical phenomena arise. Before we describe lightning, however, we can finish the story by looking at what happens to the thunderstorm cell after about one-half an hour to an hour. The cell looks as shown in Fig. 9-10. The updraft stops because there is no longer enough warm air to maintain it. The downward precipitation continues for a while, the last little bits of water come out, and things get quieter and quieter—although there are small ice crystals left way up in the air. Because the winds at very great altitude are in different directions, the top of the cloud usually spreads into an anvil shape. The cell comes to the end of its life.

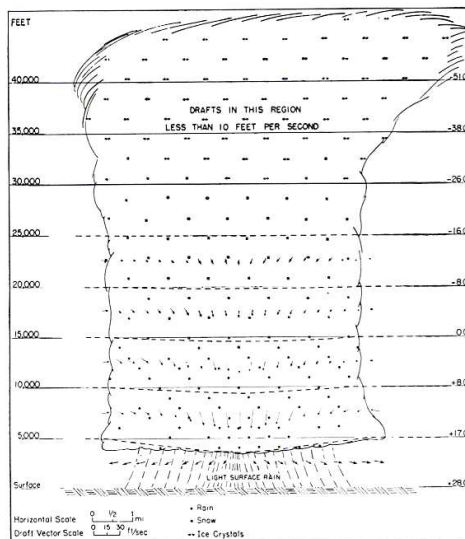


Fig. 9-10. The late phase of a thunderstorm cell. [From U.S. Department of Commerce Weather Bureau Report, June 1949.]

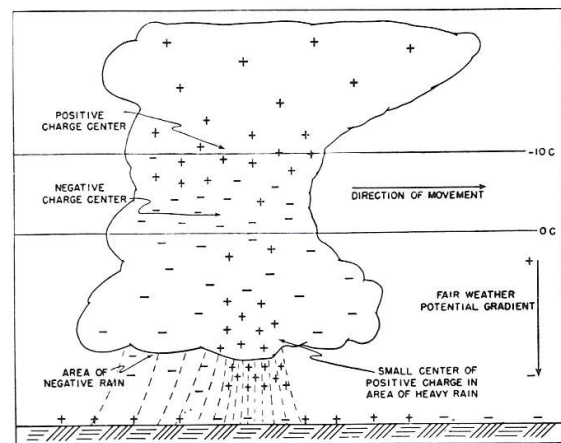


Fig. 9-11. The distribution of electrical charges in a mature thunderstorm cell. [From U.S. Department of Commerce Weather Bureau Report, June 1949.]

### 9-5 The mechanism of charge separation

We want now to discuss the most important aspect for our purposes—the development of the electrical charges. Experiments of various kinds—including flying airplanes through thunderstorms (the pilots who do this are brave men!)—tell us that the charge distribution in a thunderstorm cell is something like that shown in Fig. 9-11. The top of the thunderstorm has a positive charge, and the bottom a negative one—except for a small local region of positive charge in the bottom of the cloud, which has caused everybody a lot of worry. No one seems to know why it is there, how important it is—whether it is a secondary effect of the positive rain coming down, or whether it is an essential part of the machinery. Things would be much simpler if it weren't there. Anyway, the predominantly negative charge at the bottom and the positive charge at the top have the correct sign for the battery needed to drive the earth negative. The positive charges are 6 or 7 kilometers up in the air, where the temperature is about  $-20^{\circ}\text{C}$ , whereas the negative charges are 3 or 4 kilometers high, where the temperature is between zero and  $-10^{\circ}\text{C}$ .

The charge at the bottom of the cloud is large enough to produce potential differences of 20, or 30, or even 100 million volts between the cloud and the earth—much bigger than the 0.4 million volts from the “sky” to the ground in a clear

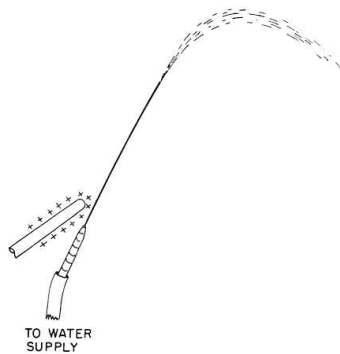


Fig. 9-12. A jet of water with an electric field near the nozzle.

atmosphere. These large voltages break down the air and create giant arc discharges. When the breakdown occurs the negative charges at the bottom of the thunderstorm are carried down to the earth in the lightning strokes.

Now we will describe in some detail the character of the lightning. First of all, there are large voltage differences around, so that the air breaks down. There are lightning strokes between one piece of a cloud and another piece of a cloud, or between one cloud and another cloud, or between a cloud and the earth. In each of the independent discharge flashes—the kind of lightning strokes you see—there are approximately 20 or 30 coulombs of charge brought down. One question is: How long does it take for the cloud to regenerate the 20 or 30 coulombs which are taken away by the lightning bolt? This can be seen by measuring, far from a cloud, the electric field produced by the cloud's dipole moment. In such measurements you see a sudden decrease in the field when the lightning strikes, and then an exponential return to the previous value with a time constant which is slightly different for different cases but which is in the neighborhood of 5 seconds. It takes a thunderstorm only 5 seconds after each lightning stroke to build its charge up again. That doesn't necessarily mean that another stroke is going to occur in exactly 5 seconds every time, because, of course, the geometry is changed, and so on. The strokes occur more or less irregularly, but the important point is that it takes about 5 seconds to recreate the original condition. Thus there are approximately 4 amperes of current in the generating machine of the thunderstorm. This means that any model made to explain how this storm generates its electricity must be one with plenty of juice—it must be a big, rapidly operating device.

Before we go further we shall consider something which is almost certainly completely irrelevant, but nevertheless interesting, because it does show the effect of an electric field on water drops. We say that it may be irrelevant because it relates to an experiment one can do in the laboratory with a stream of water to show the rather strong effects of the electric field on drops of water. In a thunderstorm there is no stream of water; there is a cloud of condensing ice and drops of water. So the question of the mechanisms at work in a thunderstorm is probably not at all related to what you can see in the simple experiment we will describe. If you take a small nozzle connected to a water faucet and direct it upward at a steep angle, as in Fig. 9-12, the water will come out in a fine stream that eventually breaks up into a spray of fine drops. If you now put an electric field across the stream at the nozzle (by bringing up a charged rod, for example), the form of the stream will change. With a weak electric field you will find that the stream breaks up into a smaller number of large-sized drops. But if you apply a stronger field, the stream breaks up into many, many fine drops—smaller than before.\* With a weak electric field there is a tendency to inhibit the breakup of the stream into drops. With a stronger field, however, there is an increase in the tendency to separate into drops.

The explanation of these effects is probably the following. If we have the stream of water coming out of the nozzle and we put a small electric field across it one side of the water gets slightly positive and the other side gets slightly negative. Then, when the stream breaks, the drops on one side may be positive, and those on the other side may be negative. They will attract each other and will have a tendency to stick together more than they would have before—the stream doesn't break up as much. On the other hand, if the field is stronger, the charge in each one of the drops gets much larger, and there is a tendency for the charge *itself* to help break up the drops through their own repulsion. Each drop will break into many smaller ones, each carrying a charge, so that they are all repelled, and spread out so rapidly. So as we increase the field, the stream becomes more finely separated. The only point we wish to make is that in certain circumstances electric fields can have considerable influence on the drops. The exact machinery by which something happens in a thunderstorm is not at all known, and is not at all necessarily related to what we have just described. We have included it just so that

\* A handy way to observe the sizes of the drops is to let the stream fall on a large thin metal plate. The larger drops make a louder noise.

you will appreciate the complexities that could come into play. In fact, nobody has a theory applicable to clouds based on that idea.

We would like to describe two theories which have been invented to account for the separation of the charges in a thunderstorm. All the theories involve the idea that there should be some charge on the precipitation particles and a different charge in the air. Then by the movement of the precipitation particles—the water or the ice—through the air there is a separation of electric charge. The only question is: How does the charging of the drops begin? One of the older theories is called the “breaking-drop” theory. Somebody discovered that if you have a drop of water that breaks into two pieces in a windstream, there is positive charge on the water and negative charge in the air. This breaking-drop theory has several disadvantages, among which the most serious is that the *sign* is wrong. Second, in the large number of temperate-zone thunderstorms which do exhibit lightning, the precipitation effects at high altitudes are in ice, *not* in water.

From what we have just said, we note that if we could imagine some way for the charge to be different at the top and bottom of a drop and if we could also see some reason why drops in a high-speed airstream would break up into unequal pieces—a large one in the front and a smaller one in the back because of the motion through the air or something—we would have a theory. (Different from any known theory!) Then the small drops would not fall through the air as fast as the big ones, because of the air resistance, and we would get a charge separation. You see, it is possible to concoct all kinds of possibilities.

One of the more ingenious theories, which is more satisfactory in many respects than the breaking-drop theory, is due to C. T. R. Wilson. We will describe it, as Wilson did, with reference to water drops, although the same phenomenon would also work with ice. Suppose we have a water drop that is falling in the electric field of about 100 volts per meter toward the negatively charged earth. The drop will have an induced dipole moment—with the bottom of the drop positive and the top of the drop negative, as drawn in Fig. 9-13. Now there are in the air the “nuclei” that we mentioned earlier—the large slow-moving ions. (The fast ions do not have an important effect here.) Suppose that as a drop comes down, it approaches a large ion. If the ion is positive, it is repelled by the positive bottom of the drop and is pushed away. So it does not become attached to the drop. If the ion were to approach from the top, however, it might attach to the negative, top side. But since the drop is falling through the air, there is an air drift relative to it, going upwards, which carries the ions away if their motion through the air is slow enough. Thus the positive ions cannot attach at the top either. This would apply, you see, only to the large, slow-moving ions. The positive ions of this type will not attach themselves either to the front or the back of a falling drop. On the other hand, as the large, slow, *negative* ions are approached by a drop, they will be attracted and will be caught. The drop will acquire negative charge—the sign of the charge having been determined by the original potential difference on the entire earth—and we get the right sign. Negative charge will be brought down to the bottom part of the cloud by the drops, and the positively charged ions which are left behind will be blown to the top of the cloud by the various updraft currents. The theory looks pretty good, and it at least gives the right sign. Also it doesn't depend on having liquid drops. We will see, when we learn about polarization in a dielectric, that pieces of ice will do the same thing. They also will develop positive and negative charges on their extremities when they are in an electric field.

There are, however, some problems even with this theory. First of all, the total charge involved in a thunderstorm is very high. After a short time, the supply of large ions would get used up. So Wilson and others have had to propose that there are additional sources of the large ions. Once the charge separation starts, very large electric fields are developed, and in these large fields there may be places where the air will become ionized. If there is a highly charged point, or any small object like a drop, it may concentrate the field enough to make a “brush discharge.” When there is a strong enough electric field—let us say it is positive—electrons will fall into the field and will pick up a lot of speed between collisions. Their speed will be such that in hitting another atom they will tear electrons off at that

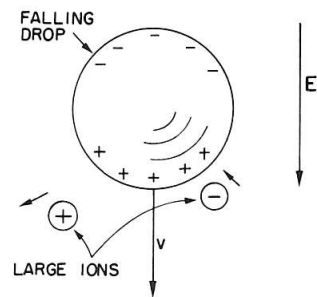


Fig. 9-13. C. T. R. Wilson's theory of charge separation in a thundercloud.

atom, leaving positive charges behind. These new electrons also pick up speed and collide with more electrons. So a kind of chain reaction or avalanche occurs, and there is a rapid accumulation of ions. The positive charges are left near their original positions, so the net effect is to distribute the positive charge on the point into a region around the point. Then, of course, there is no longer a strong field, and the process stops. This is the character of a brush discharge. It is possible that the fields may become strong enough in the cloud to produce a little bit of brush discharge; there may also be other mechanisms, once the thing is started, to produce a large amount of ionization. But nobody knows exactly how it works. So the fundamental origin of lightning is really not thoroughly understood. We know it comes from the thunderstorms. (And we know, of course, that thunder comes from the lightning—from the thermal energy released by the bolt.)

At least we can understand, in part, the origin of atmospheric electricity. Due to the air currents, ions, and water drops on ice particles in a thunderstorm, positive and negative charges are separated. The positive charges are carried upward to the top of the cloud (see Fig. 9-11), and the negative charges are dumped into the ground in lightning strokes. The positive charges leave the top of the cloud, enter the high-altitude layers of more highly conducting air, and spread throughout the earth. In regions of clear weather, the positive charges in this layer are slowly conducted to the earth by the ions in the air—ions formed by cosmic rays, by the sea, and by man's activities. The atmosphere is a busy electrical machine!

### 9-6 Lightning

The first evidence of what happens in a lightning stroke was obtained in photographs taken with a camera held by hand and moved back and forth with the shutter open—while pointed toward a place where lightning was expected. The first photographs obtained this way showed clearly that lightning strokes are usually multiple discharges along the same path. Later, the "Boys" camera, which has *two* lenses mounted 180° apart on a rapidly rotating disc, was developed. The image made by each lens moves across the film—the picture is spread out in time. If, for instance, the stroke repeats, there will be two images side by side. By comparing the images of the two lenses, it is possible to work out the details of the time sequence of the flashes. Figure 9-14 shows a photograph taken with a "Boys" camera.

We will now describe the lightning. Again, we don't understand exactly how it works. We will give a qualitative description of what it *looks* like, but we won't go into any details of *why* it does what it appears to do. We will describe only the ordinary case of the cloud with a negative bottom over flat country. Its potential is much more negative than the earth underneath, so negative electrons will be accelerated toward the earth. What happens is the following. It all starts with a thing called a "step leader," which is not as bright as the stroke of lightning. On the photographs one can see a little bright spot at the beginning that starts from the cloud and moves downward very rapidly—at a sixth of the speed of light! It goes only about 50 meters and stops. It pauses for about 50 microseconds, and then takes another step. It pauses again and then goes another step, and so on. It moves in a series of steps toward the ground, along a path like that shown in Fig. 9-15. In the leader there are negative charges from the cloud; the whole column is full of negative charge. Also, the air is becoming ionized by the rapidly moving charges that produce the leader, so the air becomes a conductor along the path traced out. The moment the leader touches the ground, we have a conducting "wire" that runs all the way up to the cloud and is full of negative charge. Now, at last, the negative charge of the cloud can simply escape and run out. The electrons at the bottom of the leader are the first ones to realize this; they dump out, leaving positive charge behind that attracts more negative charge from higher up in the leader, which in its turn pours out, etc. So finally all the negative charge in a part of the cloud runs out along the column in a rapid and energetic way. So the lightning stroke you *see* runs *upwards* from the ground, as indicated in Fig. 9-16. In fact, this main stroke—by far the brightest part—is called the *return*

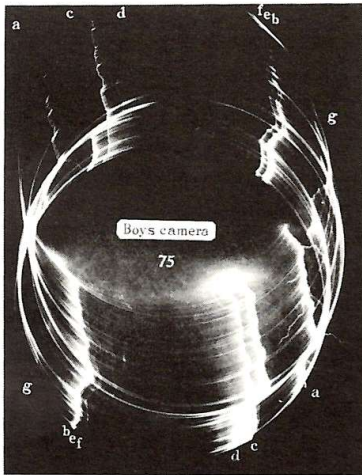


Fig. 9-14. Photograph of a lightning flash taken with a "Boys" camera. [From Schonland, Malan, and Collens, *Proc. Roy. Soc. London*, Vol. 152 (1935).]

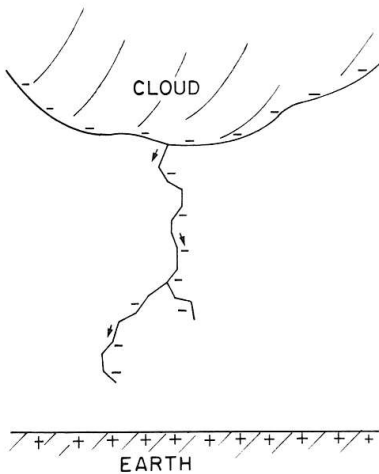


Fig. 9-15. The formation of the "step leader."

*stroke*. It is what produces the very bright light, and the heat, which by causing a rapid expansion of the air makes the thunder clap.

The current in a lightning stroke is about 10,000 amperes at its peak, and it carries down about 20 coulombs.

But we are still not finished. After a time of, perhaps, a few hundredths of a second, when the return stroke has disappeared, another leader comes down. But this time there are no pauses. It is called a “dark leader” this time, and it goes all the way down—from top to bottom in one swoop. It goes full steam on exactly the old track, because there is enough debris there to make it the easiest route. The new leader is again full of negative charge. The moment it touches the ground—zing!—there is a return stroke going straight up along the path. So you see the lightning strike again, and again, and again. Sometimes it strikes only once or twice, sometimes five or ten times—once as many as 42 times on the same track was seen—but always in rapid succession.

Sometimes things get even more complicated. For instance, after one of its pauses the leader may develop a branch by sending out *two* steps—both toward the ground but in somewhat different directions, as shown in Fig. 9-15. What happens then depends on whether one branch reaches the ground definitely before the other. If that does happen, the bright return stroke (of negative charge dumping into the ground) works its way *up* along the branch that touches the ground, and when it reaches and passes the branching point on its way up to the cloud, a bright stroke appears to go *down* the other branch. Why? Because negative charge is dumping out and that is what lights up the bolt. This charge begins to move at the top of the secondary branch, emptying successive, longer pieces of the branch, so the bright lightning bolt appears to work its way down that branch, at the same time as it works up toward the cloud. If, however, one of these extra leader branches happens to have reached the ground almost simultaneously with the original leader, it can sometimes happen that the *dark* leader of the second stroke will take the second branch. Then you will see the first main flash in one place and the second flash in another place. It is a variant of the original idea.

Also, our description is oversimplified for the region very near the ground. When the step leader gets to within a hundred meters or so from the ground, there is evidence that a discharge rises from the ground to meet it. Presumably, the field gets big enough for a brush-type discharge to occur. If, for instance, there is a sharp object, like a building with a point at the top, then as the leader comes down nearby the fields are so large that a discharge starts from the sharp point and reaches up to the leader. The lightning tends to strike such a point.

It has apparently been known for a long time that high objects are struck by lightning. There is a quotation of Artabanis, the advisor to Xerxes, giving his master advice on a contemplated attack on the Greeks—during Xerxes’ campaign to bring the entire known world under the control of the Persians. Artabanis said, “See how God with his lightning always smites the bigger animals and will not suffer them to wax insolent, while these of a lesser bulk chafe him not. How likewise his bolts fall ever on the highest houses and tallest trees.” And then he explains the reason: “So, plainly, doth he love to bring down everything that exalts itself.”

Do you think—now that you know a true account of lightning striking tall trees—that you have a greater wisdom in advising kings on military matters than did Artabanis 2300 years ago? Do not exalt yourself. You could only do it less poetically.

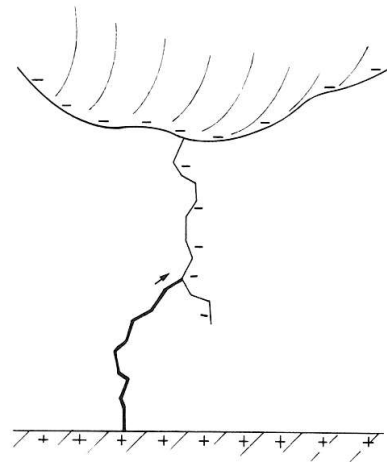


Fig. 9-16. The return lightning stroke runs back up the path made by the leader.

That's correct, the "science" on the collector apparatus checks out. We have now moved from the area of speculation, into realization. I say science in quotes because the science available to the public is heavily filtered and key technologies suppressed and have been since, oh, the very beginning. Yeah, it's a tough statement but I believe the evidence can no longer be dismissed. As presented the PAE system makes a case for additional experimentation, and rebuttals to be done so with burdens of proof, not merely a pointer to an authoritative source. I believe the produce or the yield of the crop in the coming years as the antenna is fine tuned, will be the absolute data point from whence judgement can be made. As of this year no fertilizer or other organic supplements have been added to my soil in the test of Prototype I, nor the secondary test beds for individual plant experiments. My soil is mostly slate/shale slightly on the acidic side as it used to be home for walnut trees and wildberries that grew hardy despite the walnuts jugalone toxin. I've had modest results the last two years, with no Electroculture applied.

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*"Links with biology*

*The atmospheric potential gradient leads to an ion flow from the positively charged atmosphere to the negatively charged earth surface. Over a flat field on a day with clear skies, the atmospheric potential gradient is approximately 120 V/m.[16] Objects protruding these fields, e.g. flowers and trees, can increase the electric field strength to several kilovolts per meter.[17] These near-surface electrostatic forces are detected by organisms such as the bumblebee to navigate to flowers[17] and the spider to initiate dispersal by ballooning.[16][18] The atmospheric potential gradient is also thought to affect **sub-surface electro-chemistry and microbial processes**.[19]*

*On the other hand, swarming insects[20] and birds[21] can be a source of biogenic charge in the atmosphere, likely contributing to a source of electrical variability in the atmosphere."*

[https://en.wikipedia.org/wiki/Atmospheric\\_electricity](https://en.wikipedia.org/wiki/Atmospheric_electricity)

---

Bacteria in soil converts atmospheric electricity to food for plants.

Read Article on a soil bacteria that extracts energy from hydrogen: March 8, 2023

<https://phys.org/news/2023-03-newly-enzyme-air-electricity-source.html>

Referring to the "Occult Science" the occultists have been wholly engaged in since the beginning of time, whilst the general public and academia absolutely neglectful of the FACT. As you can see the statement from earlier rings true.

# Electricity from thin air: an enzyme from bacteria can extract energy from hydrogen in the atmosphere

Published: March 8, 2023 2:07pm EST

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It may sound surprising, but when times are tough and there is no other food available, some soil bacteria can consume traces of hydrogen in the air as an energy source.

In fact, bacteria remove a staggering 70 million tonnes of hydrogen yearly from the atmosphere, a process that literally shapes the composition of the air we breathe.

We have isolated an enzyme that enables some bacteria to consume hydrogen and extract energy from it, and found it can produce an electric current directly when exposed to even minute amounts of hydrogen.

As we report in [a new paper in Nature](#), the enzyme may have considerable potential to power small, sustainable air-powered devices in future.

This process of turning hydrogen into energy is done by converting it into soil nitrogen, which plants consume as part of their nutrient life cycle. The PAE system brings the 600V of the atmospheric electricity at 20' (See Atmospheric Electricity) being imparted on our square meter at 2picoamperes, down to the soil in a steady stream to feed this bacteria which in turn produces the energy for the plants nutrient lifecycle. Winning!

## Bacterial Fertilizer

Certain types of bacteria are not decomposers in the typical sense but nonetheless contribute to important nutrient cycles. Some of the most widely known and appreciated species in this category are the numerous bacteria that can convert atmospheric nitrogen into plant-available forms of soil nitrogen. Many of these bacteria are in the *Rhizobium* genus, but various other genera include species that can "fix" nitrogen from the atmosphere and store it in the soil. Nitrogen, an essential plant nutrient that is often in limited supply, can escape into the atmosphere through processes known as denitrification and volatilization. Nitrogen-fixing bacteria recycle this lost nitrogen back into the soil.

# Hydrogen-oxidizing bacteria

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**Hydrogen-oxidizing bacteria** are a group of facultative autotrophs that can use hydrogen as an electron donor. They can be divided into aerobes and anaerobes. The former use hydrogen as an electron donor and oxygen as an acceptor while the latter use sulphate or nitrogen dioxide as electron acceptors.<sup>[1]</sup> Species of both types have been isolated from a variety of environments, including fresh waters, sediments, soils, activated sludge, hot springs, hydrothermal vents and percolating water.<sup>[2]</sup>

These bacteria are able to exploit the special properties of molecular hydrogen (for instance redox potential and diffusion coefficient) thanks to the presence of hydrogenases.<sup>[3]</sup> The aerobic hydrogen-oxidizing bacteria are facultative autotrophs, but they can also have mixotrophic or completely heterotrophic growth. Most of them show greater growth on organic substrates. The use of hydrogen as an electron donor coupled with the ability to synthesize organic matter, through the reductive assimilation of CO<sub>2</sub>, characterize the hydrogen-oxidizing bacteria. Among the most represented genera of these organisms are *Caminibacter*, *Aquifex*, *Ralstonia* and *Paracoccus*.

## Sources of hydrogen   [edit]

Hydrogen is the most widespread element on our Earth, representing around three-quarters of all atoms.<sup>[4]</sup> In the atmosphere, the concentration of molecular hydrogen (H<sub>2</sub>) gas is about 0.5–0.6 ppm, and so it represents the second-most-abundant trace gas after methane.<sup>[3]</sup> H<sub>2</sub> can be used as energy source in biological processes because it has a highly negative redox potential ( $E_0' = -0.414$  V). It can be coupled with O<sub>2</sub>, in oxidative respiration (2H<sub>2</sub> + O<sub>2</sub> → 2H<sub>2</sub>O), or with oxidized compounds, such as carbon dioxide or sulfate.<sup>[5]</sup>

In an ecosystem, hydrogen can be produced through abiotic and biological processes. The abiotic processes are mainly due to geothermal production<sup>[6]</sup> and serpentinization.<sup>[7]</sup>

Noble gases hold the key to unlocking the aethers mystery. Our proprietary PAE system utilizes the untapped power of these gases which we use as primary points to interact with the unseen forces of the electric atmosphere all around us, as proven.

## Composition

*Main article: Atmospheric chemistry*

The three major constituents of Earth's atmosphere are nitrogen, oxygen, and argon. Water vapor accounts for roughly 0.25% of the atmosphere by mass. The concentration of water vapor (a greenhouse gas) varies significantly from around 10 ppm by mole fraction in the coldest portions of the atmosphere to as much as 5% by mole fraction in hot, humid air masses, and concentrations of other atmospheric gases are typically quoted in terms of dry air (without water vapor).<sup>[11]:8</sup> The remaining gases are often referred to as trace gases,<sup>[12]</sup> among which are other greenhouse gases, principally carbon dioxide, methane, nitrous oxide, and ozone. Besides argon already mentioned, other noble gases, neon, helium, krypton, and xenon are also present. Filtered air includes trace amounts of many other chemical compounds. Many substances of natural origin may be present in locally and seasonally variable small amounts as aerosols in an unfiltered air sample, including dust of mineral and organic composition, pollen and spores, sea spray, and volcanic ash. Various industrial pollutants also may be present as gases or aerosols, such as chlorine (elemental or in compounds), fluorine compounds and elemental mercury vapor. Sulfur compounds such as hydrogen sulfide and sulfur dioxide (SO<sub>2</sub>) may be derived from natural sources or from industrial air pollution.

## Earths Postive Feed Back Loop

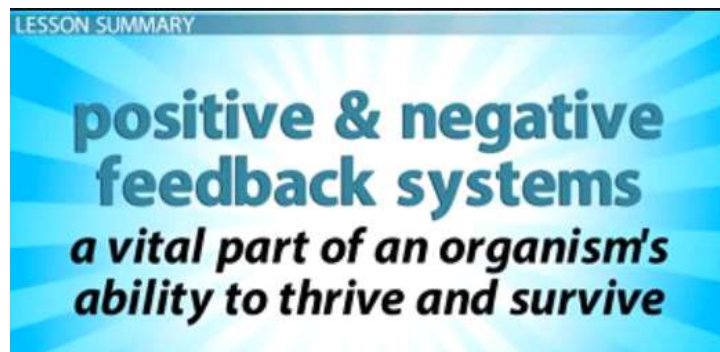
### The Cycle of Life

On Earths postive feed back loop, Electroculture IS the solution to a return to sanity and healthy agricultural practices.

## The Cycle of Life

A balanced natural ecosystem can remain healthy and biologically vibrant year after year because it is essentially a closed system. A corn field, for example, is not a closed system because nutrients in the corn are exported to distant locations and cannot return to the soil in the form of organic wastes. An undisturbed rainforest, on the other hand, retains most of its fertility from year to year because nutrients are not removed in the form of crops or timber. But these conserved nutrients are not always in a convenient form. Tree roots, for example, cannot absorb minerals locked up in the branches of a shrub that recently died. This is where bacteria become involved.

The diversity and abundance of life on Earth could not sustain itself without delicately balanced ecosystems in which nutrients are continually recycled. Unlike agricultural fields, which require substantial inputs of formulated nutrients, ecosystems such as rainforests and native grasslands must maintain their own productivity by conserving and reusing nutrients. Bacteria play an essential role in these natural recycling programs.



## Primary Energy Apparatus Hexbeamer



The explanation for this device is beyond the scope of this article.

What you see is a Xenon bulb in colliding (bucking) magnetic fields, ie, magnets are forced together against their magnetic fields creating a new tangent magnetic pole of the original field of the magnets.

This magnetic field, containing longitudinal waves from the colliding magnetic fields, exerts magnetic flux on the noble gas Xe in the bulb, changing the vibratory state of the inert gas. The resulting beam is something like a scalar beam, as one of its vectors are permeating from the dipole of the interaction, from the other side, the 99% of the aether we don't see.

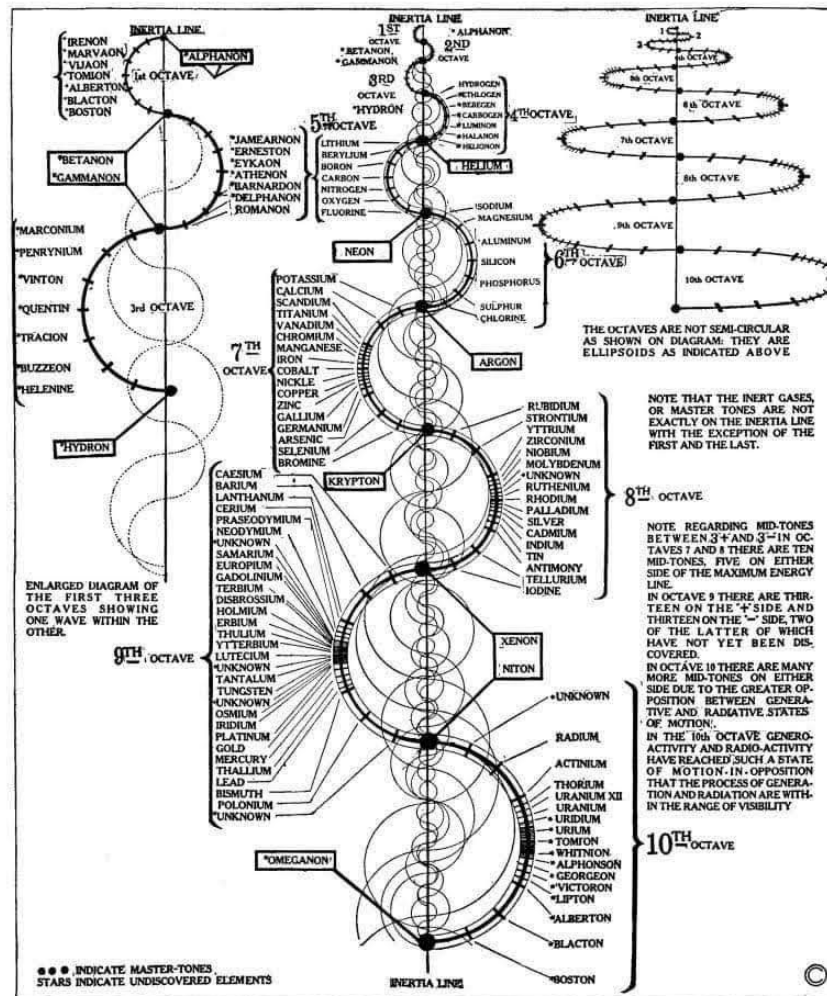
Primary Energy (Primordial) produced from the Hexbeamer device has a entirely different effect on plants, all biological matter in fact, including humans. The subtle longitudinal waves can be felt immediately, and the effect is shown to be a healing effect, regenerative in nature. The authors own decade of experience is not the only testament to the fact, I have used the device to help friends heal throughout the years, during times of illness or injury, by exposing them to the beam created by the Hexbeamer.

See: [ref a](#)

The diagram below I believe originates from occultist *Manly P. Hall*, way before this diagram could actually be proven by modern physics. Let me remind you,

*"wholly and absolutely neglectful of the one study with which the occultists have been solely engaged "* as stated from their very own mouth.

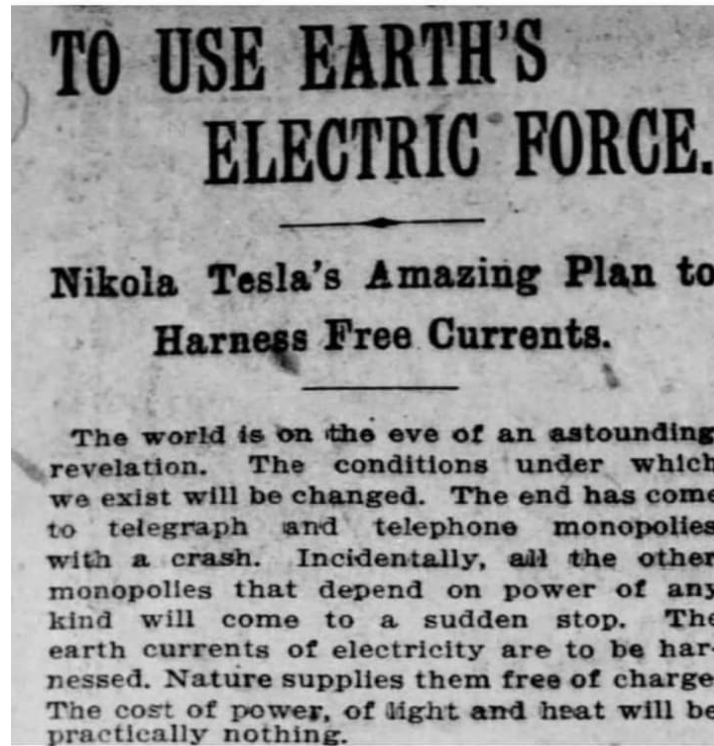
What I'm saying is, these a\$\$ hats have been playing slight of hand for a long time, keeping the rest of humanity in the dark. Remember it was King Solomon one of the OG (original gangster) occultists who proclaimed there is nothing new under the sun. New does not exist. Existence, this manifestation is **cyclical**, or if plotted on a linea, a sine wave just like an oscilloscope measures output of electricity. Or like the diagram.



What does occultist *Nikola Tesla* have to say;

March 15, 1896.

St louis post



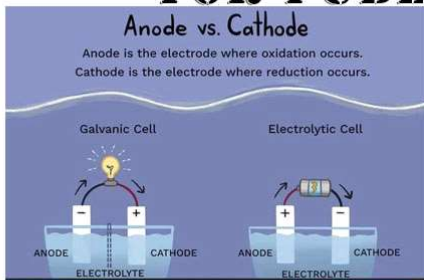
*"Nikola Tesla was born an ethnic Serb in the village of Smiljan, within the Military Frontier, in the Austrian Empire (present day Croatia), on 10 July [O.S. 28 June] 1856.[14][15] His father, Milutin Tesla (1819–1879),[16] was a priest of the Eastern Orthodox Church."*

Eastern Orthodox Church was likely the last generation of priests whom had the knowledge of the ancient technology passed amongst them, but not to the public. Young Nikola was likely the inheritor of this technology developing it further for free public use, which we all know was crushed by a more billable product of distribution via wire conductors. Why should we have something for free for which the system could bill us for?



The electrical circuits for atmospheric electricity shown on this sample of Eastern Orthodox Church priest garment. The **Schema** monks as they are known, have been burdened with these tunics representing the carrying of the Jesus Christ cross since 300 AD. That resonates doesn't it? Resonance is the name of the game. Knock, knock? Who's there? Truth MF, truth pounding down the door of cognitive dissonance. Just like in freemasonry where truth is revealed only to 33 degree initiates, your average priest at church likely isn't in on the **schema**. There is no coincidence, there are only synchronicities that most people fail to understand. The masters of the second veil are the true criminals. This too will be revealed in future articles, where again, their own symbology will be used to bring them down.

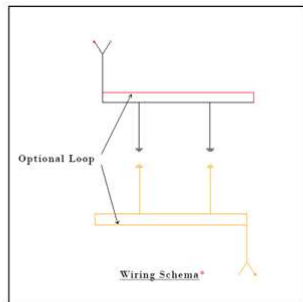
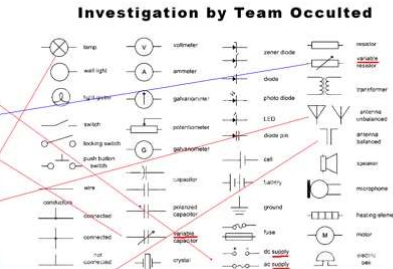
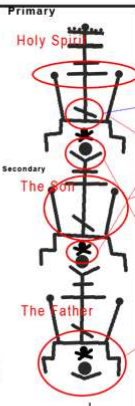
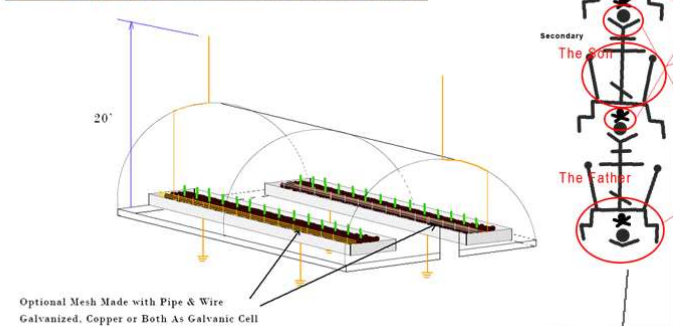
# FOR PUBLIC DISTRIBUTION



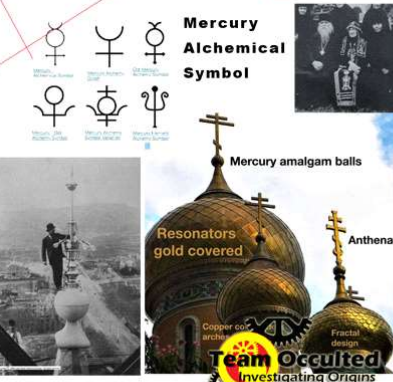
Nothing to see here.  
**Schema** monks, huh?  
Wiring **Schematics**.  
Coincidence I'm sure.



### Atmospheric Electricity Resonance Circuit As On Orthodox Schema Monks



Notes:  
Above ground planters require good ground rods.  
Transmission wire can be galvanized 18-18 awg  
(2) Basic Electroculture Antennas @ 20'  
Standard Hoop House Sizes  
One circuit can be entirely copper the other galvanized.  
\* Schema Monks' Original Atmospheric Schematics



<b>A</b>	<b>TEAM ELECTRO</b>
	TEAMELECTROCULTURE.COM
	Title: Basic Configuration Single Hoop House
	DWG No. 030-C3-0723
scale	sheet



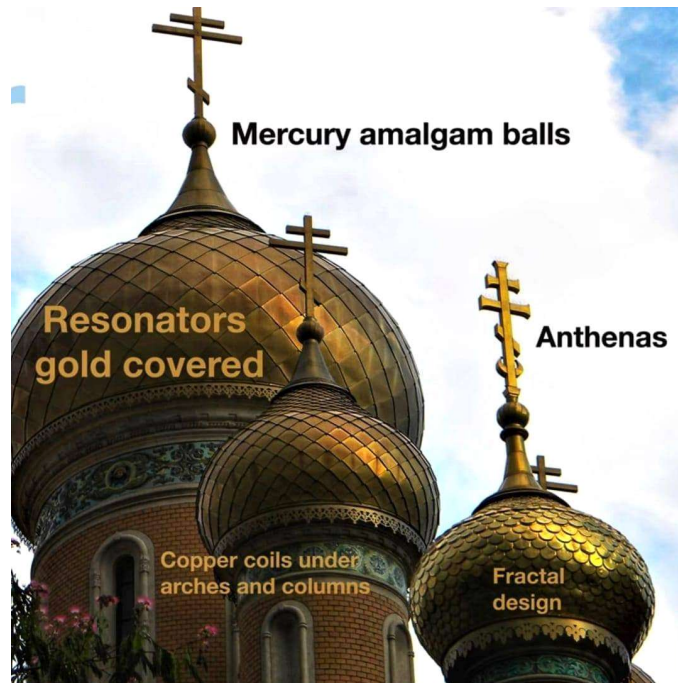
Symbols, again coincidence.

Orthodox Priest  
Milutin Tesla  
Teslas Father

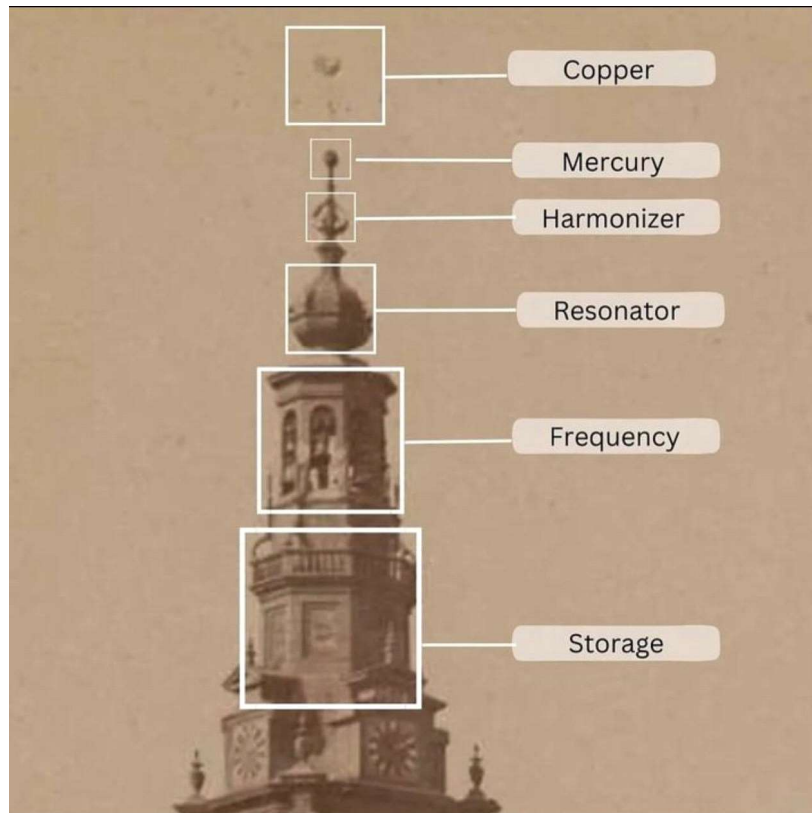
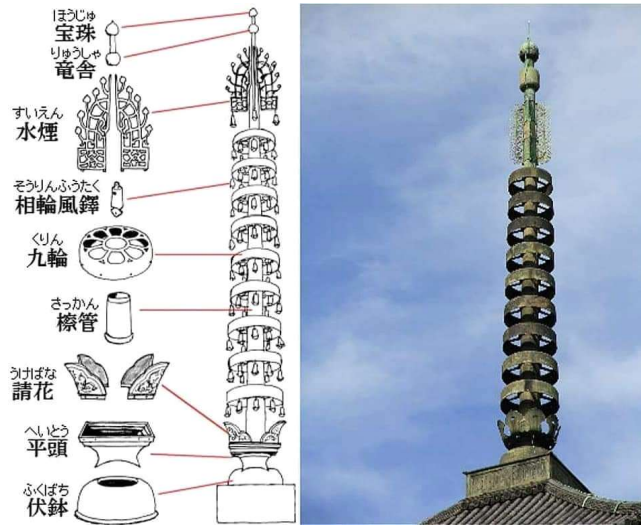


I'm Mickey Mouse & This is Disney Land  
Oh, you should read why they wear the garments!  
Since **3rd century** the Schema (Schematic) monks  
have burdened the weight of Jesus cross.  
Let us relinquish them of the weight, and decode  
what these monks really have on their tunics.

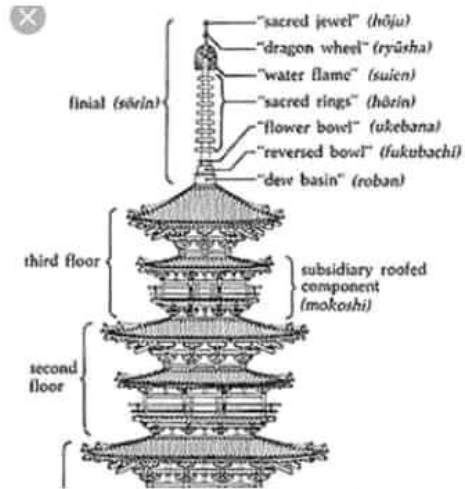
You better pay attention because you won't learn this anywhere else.

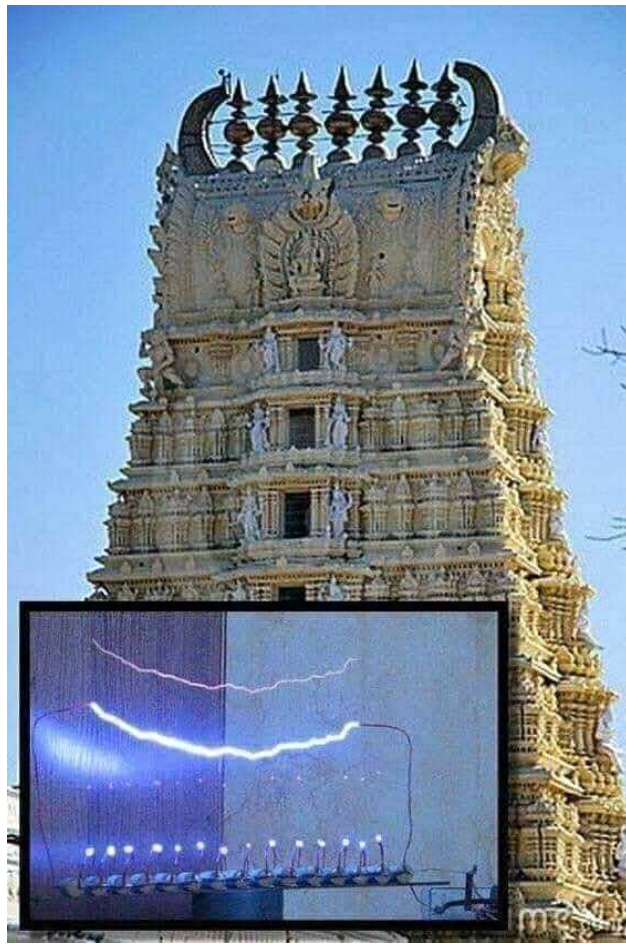


Yes, these were used for energy generation WAY before the Industrial Revolution!  
 Before Tesla, before Faraday, before Maxwell, Lorentz & Volta!  
 The Occultists technologies originate from before the Great Deluge from the antediluvian civilizations. The story of the flood is true just not in the story line of the Hebrews. The exciting saga of the individual known as Noah will be revealed in future articles.



# Csak összehasonlítóképpen. Ingyen energia és a mai technológia. Gondolatébresztőnek...

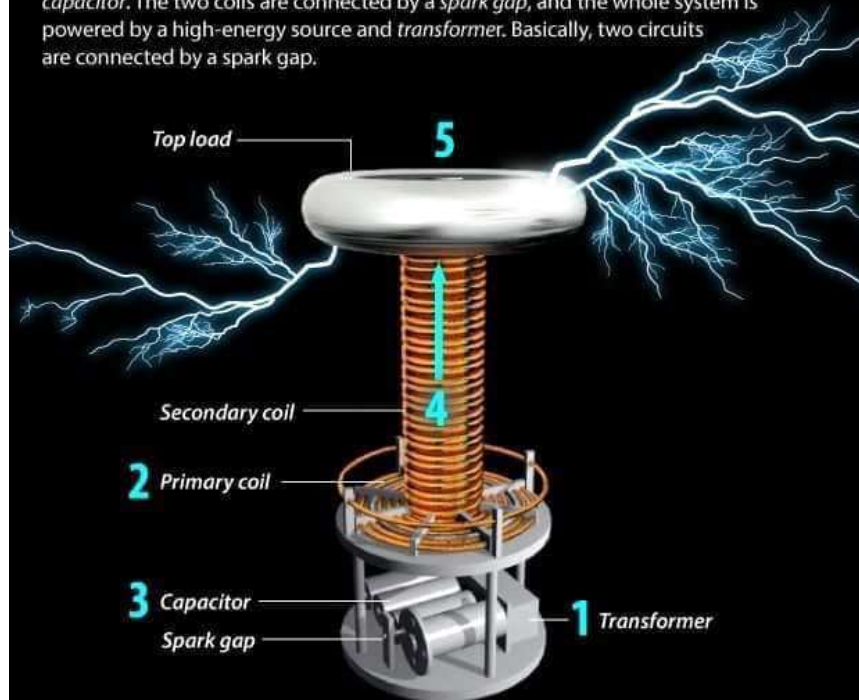




# THE TESLA COIL

Named for its inventor, Nikola Tesla, this machine transforms energy into extremely high-voltage charges, creating powerful electrical fields capable of producing spectacular electrical arcs. Besides the lightning-bolt shows they can put on, Tesla coils had very practical applications in wireless radio technology and some medical devices.

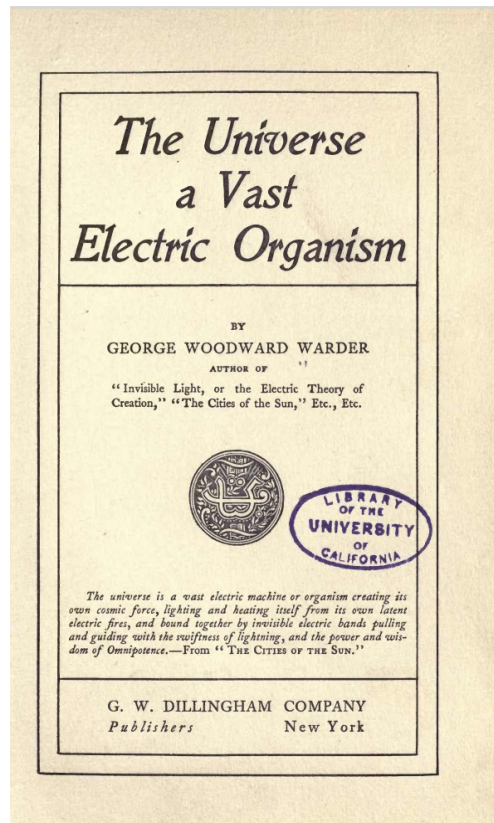
A **Tesla coil** is made of two parts: a *primary coil* and a *secondary coil*, each with its own *capacitor*. The two coils are connected by a *spark gap*, and the whole system is powered by a high-energy source and *transformer*. Basically, two circuits are connected by a spark gap.



## HOW IT WORKS:

1. The transformer boosts the voltage.
2. The power source is hooked up to the primary coil. The primary coil's capacitor acts like a sponge and soaks up the charge.
3. Electric current builds up in the capacitor until it reaches a tipping point. The current streams out of the capacitor into the coil. Once the first capacitor is completely wrung out and has no energy left, the inductor reaches its maximum charge and sends the voltage into the spark gap (basically a gap of air between two electrodes).
4. The huge voltage current flows through the spark gap into the secondary coil. The energy sloshes back and forth between the two coils.
5. The secondary coil has a top-load capacitor that concentrates all the current and can eventually shoot out lightninglike bolts.

The idea is to achieve a phenomenon called resonance between the two coils. Resonance happens when the primary coil shoots the current into the secondary coil at the perfect time that maximizes the energy transferred into the secondary coil. Think of it as timing a push to a swing to make it go as high as possible.



ref b

I always make it a point to allow those who laugh at these things when I try to discuss with them, know that those who laugh first, typically do not laugh last. The fallacy of ridicule has always led to a false conclusion. Ridicule is like throwing jet fuel on a napalm fire, your only encouraging the situation.

Truth will always prevail.

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### **Lakhovsky, The Secret of Life - Where have you been?**

*"What have we to learn from this remarkable man? He states that the living cell is an electromagnetic resonator capable of emitting and absorbing radiations of very high frequency. Life is dynamic equilibrium of all cells; the harmony of multiple radiations which react upon one another. Disease, on the other hand, is the oscillatory disequilibrium of cells originating from external causes. Each living cell gives off radiations from its nucleus which has its own individual oscillating frequency. The geometric makeup of the cell causes it to act as an electric circuit which has self inductance and capacity. The natural oscillation of energy in the cell I believe to be due to the constant interaction of the matter and antimatter cycle discussed in other sections of this book. A pendulum-like pulsing occurs between the physical and non-physical substances.*

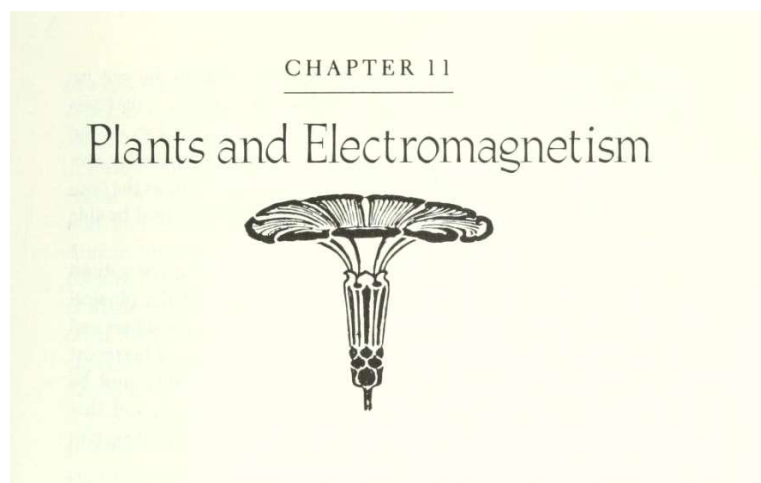
*When stronger radiations are imposed upon the cell by outside influences, then the natural rhythm of the cell is affected and it begins to break down. If the radiation of the cell can be restored to its original rhythm then it will resume its healthy state.*

*Lakhovsky found that he could accomplish this restoration of natural rhythm by means of artificially induced oscillating fields. To do this he employed two different methods. The first, by the use of spiral loops of copper wire which would set up electro-magnetic fields harmonically tuned to the life forces. These loops of wire were placed around the plant or area to be treated, and the natural bionic rhythm would be intensified by the inductance of the wire loop."*

The Energy Grid  
The Pulse of the Universe  
Bruce L. Cathie

Speaking on;  
The Secret of Life by G. Lakhovsky first printed  
in 1935

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gardens below.

These French and Italian reports caused little stir among the scientific pundits of the day, who, even then, were beginning to pay more attention to the effects of electricity on inert, rather than on living, bodies. Nor were they impressed when yet another clergyman, Abbé Bertholon, came out in 1783 with a full-scale treatise, *De l'Electricité des Végétaux*. A professor of experimental physics at French and Spanish universities, Bertholon gave strong support to Nollet's idea that by altering the viscosity, or flow resistance, of fluids in living organisms electricity could change their growth functions. He cited the report of an Italian physicist, Giuseppe Toaldo, that in a row of jasmine bushes the two which were next to a lightning conductor grew thirty feet tall whereas all the others attained only four feet.

others attained only four feet.

Bertholon, who was considered something of a sorcerer, had a gardener stand on a slab of insulating material and sprinkle vegetables from an electrified watering can. He reported that his salads grew to an extraordinary size. He also invented what he called an "electrovegetometer" to collect atmospheric electricity by means of an antenna, and pass it through plants growing in a field. "This instrument," he wrote, "is applicable to all kinds of vegetal production, everywhere, in all weather; and its utility and efficacy cannot be ignored or doubted except by timid souls who are not inspired by discoveries and who will never push back the barriers of the sciences but will remain eternally within the narrow confines of a cowardly pusillanimity which, to palliate it, is too

For centuries the attractive forces in amber and lodestone were thought to be "penetrating etheric fluids" (whatever *they* might be), emitted by the substances. Even fifty years after Mairan's experiments, Joseph Priestley, known principally as the discoverer of oxygen, wrote in his popular textbook on electricity:

The earth and all the bodies we are acquainted with, without exception, are supposed to contain a certain quantity of an exceedingly elastic and subtle fluid which philosophers have agreed to term electric. The moment any body becomes possessed of more or less than its natural quantity, very remarkable effects arise from it. The body is said to be electrified and is capable of exhibiting appearances which are ascribed to the power of electricity.

plants increased by one-third.

In a long series of experiments conducted as far south as Burgundy, Lemström's results varied not only with specific vegetables, fruits, and cereals but also with temperature, moisture, and the natural fertility and manuring of the soil. Lemström reported his success in 1902 in a book *Electro Cultur*, published in Berlin, and the term was included in Liberty Hyde Bailey's *Standard Cyclopaedia of Horticulture*.

See Item 'x' in References to access entire book.

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REPORT ON AN INVESTIGATION INTO  
ELECTRO-CULTURE AT CHRISTCHURCH  
BETWEEN SEPTEMBER 1972 AND JUNE 1973

This report is a record of two separate experiments I carried out during the spring and summer of 1972-73 in which I attempted to evaluate the reported effect the magnetic field has on plant growth.

This was done by growing plants inside an area of a wire aerial and comparing their rate of growth with that of other plants of the same species planted outside this area of influence. Such aerials are reported to be available commercially in California and are used to the exclusion of oil burning smoke-pots in orchards on frosty nights.

It is suspected that the wires are of such arrangement that they are in harmony with the wavelength of light and the earth's magnetic field, and have the effect of concentrating or amplifying this energy source, which the plants are able to tap, it being the most natural of energy sources next to the sun.

The aerial was built to quarter-size of the dimensions shown in Diagram 22, because of the physical problems in building a full-size one, to the home handyman.

The vertical support was an old galvanised waterpipe, the insulators were made from commercial formica, the wire was number 10 galvanised, the seven wire coils having alnico bar magnets placed inside them, north pole uppermost. This arrangement was set up with one of the legs aligned along magnetic north.

This aerial was constructed on a nurseryman's land where the Waimakariri sandy loam soil had had no special treatment and was of a uniform nature. The nurseryman who kindly allowed me to use his land also supplied the lettuce plants, which were 2-3 inches in size, and uniform.

He suggested lettuces for the test, as they are a quick growing plant suitable for an experiment of this kind.

They were planted on 3 September 1972; beside the central pole; at 5 feet and 11 feet; and beside the coil at 30 feet, and at 50 feet out from the pole.

TABLE 1

	11 October	5.5 datum	29 October	7 datum
50 feet out from pole	5.5, 5.6, 6.5	0.5	7, 7, 7.5, 8	0.5
30 feet out	6, 6	0.5	8.5, 9.5	2.0
11 feet out	7.3, died	1.8	10.0	3.0
5 feet out	8.3, 8.5	3.0	10.5, 10.5	3.5
Beside the pole	8.3, 8.3, 8.5, 8.8	3.0	12.5, 13.5, (10.0, 10.0)	6.0

This latter group were assumed to be clear of the influence, if any, of the aerial arrangement.

All the plants received water on planting and again that evening, to help them get established, but after this time the only water they received came from rainfall. Readings of the average diameter across each plant were made five and eight weeks after planting and were as follows.

The dimensions are in inches:

Using 5 1/2 inches as a datum for comparison of the measurements on 11 October, and 7 inches for those measurements taken on 29 October, the datum columns show the average plant size at each position, which displays the accelerated plant growth exhibited by plants closer to the centre of the aerial.

For example, the two by the pole finished up 6 inches greater in diameter than the examples which were clear of the area at the 50-foot station, and had well-developed hearts. The two plants which grew to 10 inches beside the pole were infested with aphids. As I had not expected the marked results shown they were unfortunately rather overcrowded, these two plants succumbing to the larger two.

The results obtained do show a marked improvement in the lettuce condition the closer they were to the centre of the arrangement. The two plants by the pole were 73 per cent larger than the plants outside the test area, although this figure is of course misleading on so few test examples.

My conclusion is that the test plants exhibited accelerated growth rate and terminal plant size when planted within the arrangement of wires described, due to a cause not established or obvious to any conventional approach.

The reader may find it interesting to consider the following:

Angle of one segment = 51.42857 degrees.

Half this angle = 25.71428 degrees

= 1542.857 minutes

Square root of this value = 39.27922

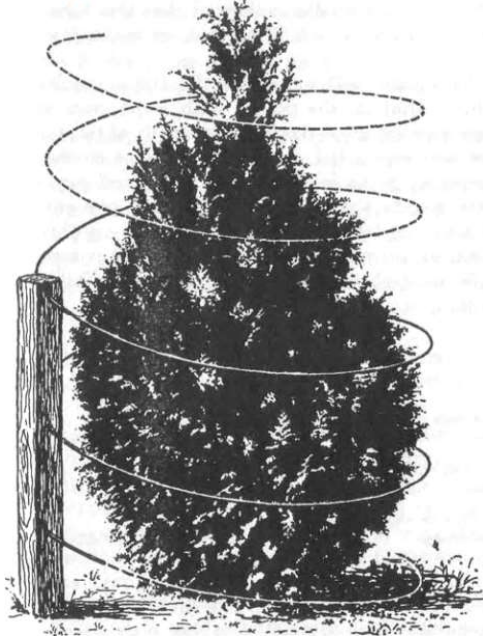
Harmonic 3927922 is close to harmonic 3928371.

Harmonic 3928371 equals earth field A minus earth field B.

All of the ground aerials related to the north, south, east or west position exhibit this factor, or a value related to one half or quarter of it.

A further series of experiments was carried out by Mr. Offwod using a type of wire loop aerial which can be erected around a single plant or tree to promote growth. I came across this device quite by chance when browsing through a bookstore in Auckland. The book was called *The Secret of Life* by G. Lakhovsky, and was first printed in 1935, later reprinted in a revised edition by courtesy of Messrs Heinemann (Medical Books) Ltd — third edition 1963. Very few copies of the book were available locally so I felt lucky to acquire one for my ever-growing library.

Wire Loop Aerial



To date, the work of [Lakhovsky has been completely ignored by orthodox science](#), much I believe to the detriment of many thousands of ill people in the world today. His research and experiments were built on the fundamental basis that "every living being emits radiations." This had been backed up in recent times by John Pfeiffer, an American working in the field of radio astronomy. His book, called *The Changing Universe*, published in 1956, states in part "each human being is an emitter of radio waves, a living broadcasting station of exceedingly low power. The stomach will send out not only infrared heat waves, but the entire spectrum of light, ultraviolet rays, X-rays, radio waves and so on. Of course all these radiations are fantastically weak and the radio waves are among the weakest. But the fifty-foot aerial of the naval research laboratory in Washington, the most accurately constructed aerial in existence could pick up radio signals coming from your stomach more than four miles away."

From: **IMPLOSION INSTEAD OF EXPLOSION** <--- Beginning of the end for fraudulent reality

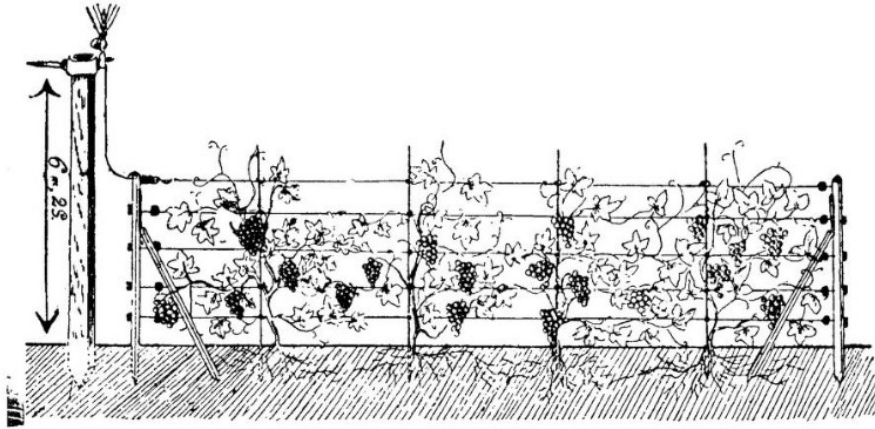
Viktor Schauberger and his Discoveries

By Leopold Brandstatter

The Natural Solution to the Energy Problem Through Diamagnetism and Etheric Forces, Second Edition, 1955

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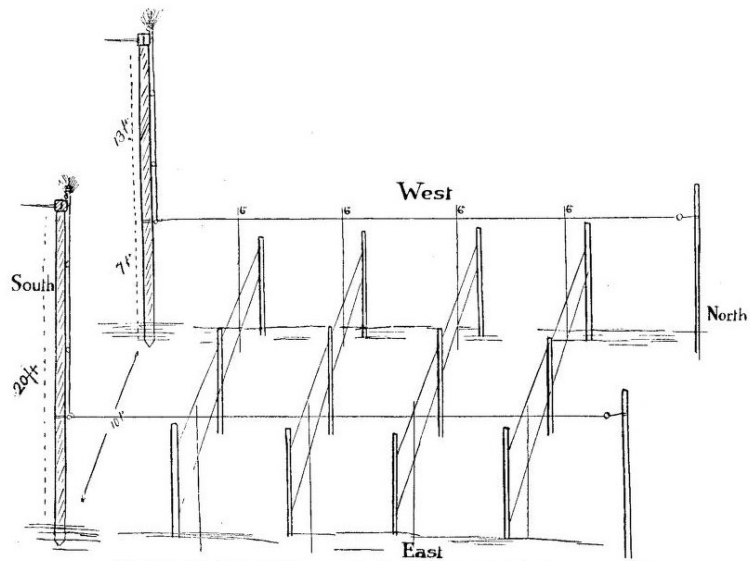
Mons. Justin Christofleau designs;



Application to Vines on Wires.

ELECTROCUITURE

13



Method of fixing Vines running East and West.—page 15.

54

ELECTROCUITURE

## **Victor Schauberger Findings,**

### **DIAMAGNETIC OR PARAMAGNETIC, THERE IS A DIFFERENCE**

On the basis of certain personal significant observations, Faraday classified metals as paramagnetic and diamagnetic. The so-called magnetic — or better -- paramagnetic metals are attracted by the magnet and show an axial arrangement; while the diamagnetic metals are repelled by the magnet and present an equatorial arrangement.

It was found that the paramagnetic group contains not only iron, nickel and cobalt (whose magnetic properties have long been familiar), but also manganese, chromium, cerium, titanium, palladium, platinum, osmium, and almost all ferrous alloys. The diamagnetic group contains in the first place bismuth, then antimony, zinc, lead, copper, silver and gold.

### **HOW TO GENERATE DIAMAGNETIC FORCES**

In Viktor Schauberger's discoveries diamagnetism is a crucial factor, or rather a factor which changes the whole picture and brings it into relief. Schauberger found that when air, earth, or water is agitated and coiled (with light, heat and air excluded) radio-axially, i.e., from outside inwards, diamagnetic forces are generated.

Thus diamagnetism and levitation explain the mystery and origin of mountain springs. The planetary, spiral movement of the earth imparts to the tellurian waters under the surface of the earth a predominantly negative magnetic charge. The earth (geosphere) itself is also negatively diamagnetic, while the atmosphere is positively diamagnetic. Since opposite poles are attracted to each other, and like poles are repelled by each other, negatively charged water is repelled by the earth, i.e. it is lifted, while at the same time it is attracted by the atmosphere. Thus, pure water levitates and rises to the top of mountains, while predominantly positive water is repelled by the positive atmosphere and comes down to earth in the form of rain, to undergo its process of purification once more.

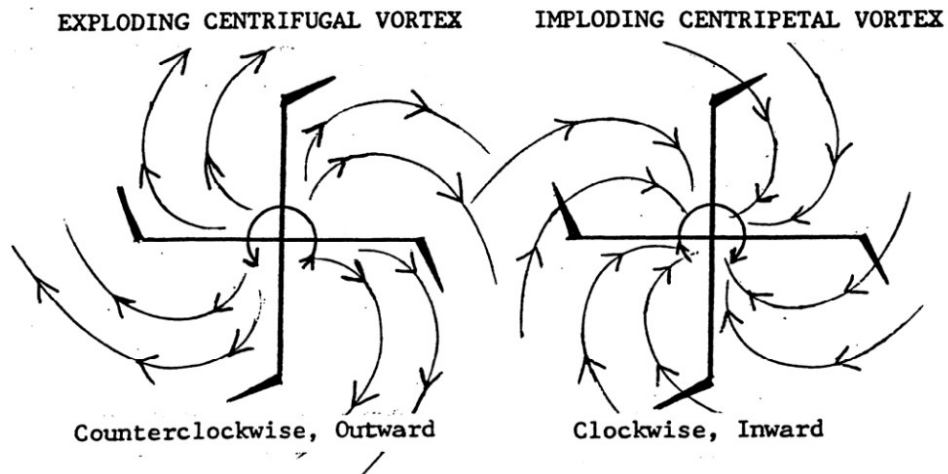
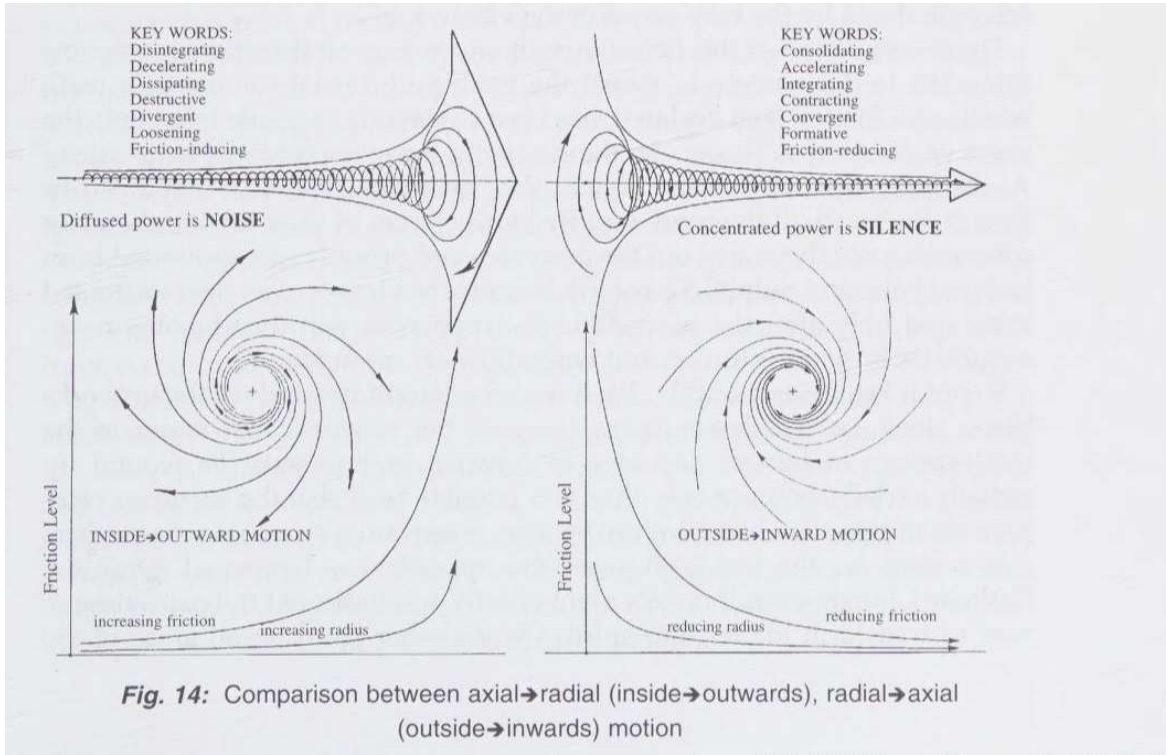
When the earth happens to be also positively charged due to excessive sunlight, it can no longer attract rain, as in deserts.

People can learn only by trial and error. Perhaps the error we made in applying fire method indiscriminately was necessary to make us realize how dangerous it is to reverse and alter the natural basic motion (the one indicated by Nature as our only means of development) and how wrong it is to employ combustion and other destructive processes to build a civilization. This explains the decadence of our culture. When people use only excentric or centrifugal forces for technical purposes they deteriorate both morally and spiritually.

## Notes on Spirals

### THE SPIRAL MUST BE HARMONIOUS

The spiral is subject to bi-polarity. There are harmonious and inharmonious spirals, the same as with melodies. A spiral is harmonious when its radii are divisible by a whole number, i.e., 1 for the first coil, 1/2 in the second coil, 1/3 in the third coil, etc.



## How did they\* kill Electroculture from industry, commercial farming and residential gardening?

Simple, they ignored all the atmospheric, atheric science and used standard electric theory applying standard voltages through the wires, which did not fertilize the soil, or in anyway represent the science or mechanisms at work. And when the current electric theory did not produce the yields, the industries and people lost interest as the science was confuscated with standard theory, the public never knowing the difference.

*"Electroculture-GASSNER, before he was called to the University of Montevideo, had begun some investigations on the effect of electric currents, constant and alternating, which, though incomplete, had some interesting results.<sup>26</sup> The constant current in general proved injurious (cf. his results and PLOWMAN'S on galvanotropism noted in this journal). The alternating current, when the alternations were rapid enough, was not injurious because it did not act at all; it was not found advantageous, as LOWENHERZ reports.<sup>27</sup> It does kill grubs and worms in the soil when not hurtful to plants and may thus be useful practically.*

*With induced currents from a frictional machine, potted barley grew better when electrified for 13-14 hours daily from needle-points above the plants, which accords with the earlier results of LEMSTROM (1890) and CHODAT (1892). One notable fact was the threefold evaporation from the electrified plants, as compared with the controls. Even greater differences, 6: 1, appear when porcelain dishes filled with water were substituted for the pots.-C. R. B."*

[https://archive.org/details/botanicalgazett09orggoog/page/n397/mode/2up?q="Electroculture-GASSNER](https://archive.org/details/botanicalgazett09orggoog/page/n397/mode/2up?q=)  
Botanical Gazette 1907 pg.355

Similar garbage came from the United States Department of Agriculture  
Department Bulletin No. 1379  
Washington DC January 1926

*"The term "electroculture" as used in this bulletin refers to practices designed to increase the growth and yield of crops through electrical treatment, such as the maintenance of **an electric charge** on a network over the plants or an electric current through the soil in which the plants are growing."*

The opening line tells you right there that it's referring to standard electric theory, nothing on telluric, scalar, radiant, cosmic. They like using statistics to sell lies, and this is just a fine example of where the mechanisms are minimized or non existent, and the focus is on turning electroculture into standard theory, then discounting that. It's a straw man fallacy, create something you can attack and work that, ignoring the true nature of the argument, or investigation.

\*They refers to the benevolent forces whom work to inhibit human health and well being.

## Natures Paramagnetic Antennas

While walking the dog along the stream bed this morning, I could not help but notice all the smalls reaching for the sky in all of their most paramagnetic designs. The evidence is all around us, sometimes we just have to make the time to stop and look. Why does the sound of the creek soothe? Why does the dog playing in the stream bring joy? How is it the dandelion is one of the most nutritious edible plants, yet no one eats it? Imagine shoving that in your mouth instead of synthetically derived oral vitamin typically part of most peoples routines. Vitamins derived from the very same source points of the very organizations working to suppress technology and poison humanity with their toxic pharmacia.

The system is inverted, truth is inverted, logic is inverted, and the only way out is back to our roots, back to nature. This is not mere point of choice, this is how it will be irrespective of our compliance. They will not achieve their goals of herding humanity towards a Tron looking existence. Why do you think they pump these types of movies in their "entertainment" programming outlets. The list of movies would exceed every page and word of this document, but for me and my family it's going to be a no. No to judgement day, No to AI, No to NWO, No to Mad Max, No to Total Recall, No to Running Man, No to any of that futuristic fake universe sci-fi debilitated humanity at the knees of overlords. Not happening, not on my watch.



### III.Rhetoric

The peers to review my work are long gone and deceased. The few hacks whom utilize electroculture are oblivious to its causes, and can only show us the devices they use. The current system of control via academia won't upturn centuries of censorship to verify its function, and are sure to bury it even further once their statistician sophists get their socialist claws on it. Electroculture destroys socialist ideology and is unlikely to be championed to the people as a source of free energy from whence profits can not be turned. Waiting for academia, modern science, pharmacia, to validate and shed light on to a technology which could easily feed and energize their chattel is unlikely. If there are still such people who wait in line for authority instructions, then I can say with exceeding confidence that nothing in this document has made sense to them.

The unseen world around us compromises 99% of the Electromagnetic Spectrum, a world of swirling toruses and twirling vortexes of molecular movement governed from natures smallest to natures largest constructs. Everything is backwards in this corrupt world as clearly demonstrated by suppressed technologies which would enable human progress of individualism from the prohibitive current model of collectivism that we hurl at ever increasing speeds. The world we live in today depends mostly on corporate oligarchy for decision making, which always prevails to the almighty sale in the form of a fabricated consumable.

These are facts. The teachers and abbots highlighted in this article, Christofleau, Lakhovsky, Schauburger, Cooke, Feynman are revered statesman, men of distinguishment, known to have propagated the message of technical advancement to their fellow men. Men who took the time to make our world a better place, by making sure water, food, energy, health, freedom of travel, could be available to anyone, anywhere, for little to no cost.

This is the promise that the Electroculture Paramagnetic Antenna (PAE) system can help to continue. With the attachment of the Primary Energy Apparatus [Hexbeamer], humans can recharge and harmonize their being, and when this technology is advanced, Primary Energy will power a new generation of devices created to exist symbiotically with earth, that will provide light, transportation, and as with The Paramagnetic Antenna system, **fertilize soil to grow hardy crop with no chemicals or destructive permaculture.**

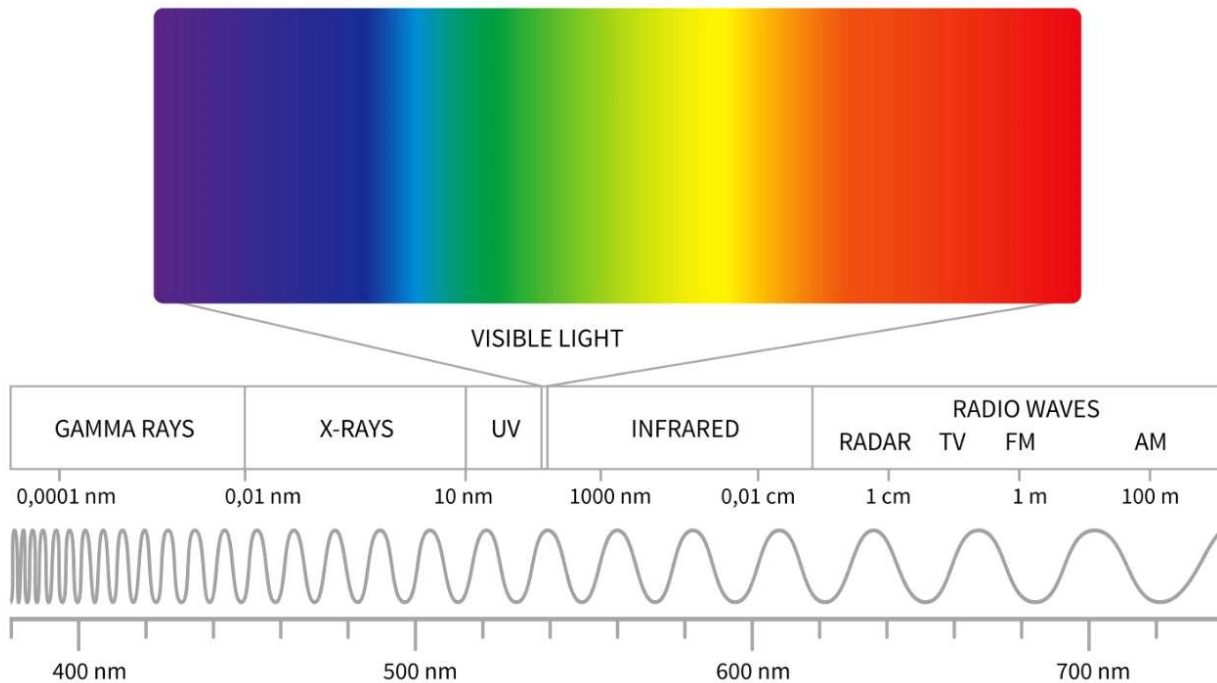
What our eyes allow us to perceive only make up 1% of the world around us. Let us consider the idea of observable phenomenon explained by known physics. We are like fish swimming in a sea of Electromagnetic waves as represented by the below spectrum. The technology herein presented is in complete alignment with natural processes that adhere and align to Earths positive feed back loop. Utilizing harmonious technologies with 0 waste, allowing annual use without the use of chemical fertilizers, pesticides, or DNA damaging genetically modified seeds.

From the gardeners stand point:

**less planting & larger yield = less work, more food = happy farmer**

This is the formula farmers, and gardeners need to design around whilst utilizing non destructive methods of agriculture.

# VISIBLE SPECTRUM



See that tiny little sliver of visible light?

That's our reality.

Imagine what you can't see. Well it's there irrespective of our lack of imagination. And now we have the methods to tap into and benefit from.

This article suffices in my abstract as initially outlined for this document, the next step is to begin the time consuming process of drawings and documentation required for patent. I hope you enjoyed this article and come back for more on my blog [teamelectroculture.com](http://teamelectroculture.com) where I promise to continue to insult authority, expose the lies and return to God, the creative source charge of everything.

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Volume 2

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Paramagnetic Agriculture

Philip Callahan

Excerpt :

Paramagnetism

Rediscovering nature's secret force of growth: How to farm properly as god intended

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Mons. Justin Christofleau, member of The Society of Scientists and Inventors of France

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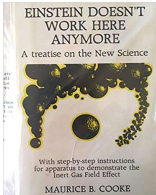
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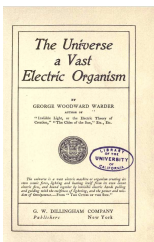


Einstein Doesn't Work Here Anymore: A Treatise on the New Science  
Maurice B. Cooke 1993

*Einstein Doesn't Work Here Anymore is one of the most unusual books you will ever read. It is the fruit of seven years of research and theoretical investigation by the author and two of his colleagues – all of whom have been involved in various branches of physics for most of their adult lives. The ideas offered here represent a radical departure from conventional thinking, and will elicit howls of protest from the 'old guard' of the scientific establishment. Were it not for the fact that the experiments described in this book show results which simply cannot be explained by orthodox science, the theoretical material might well be dismissed by anyone with a modicum of scientific education. Yet the experiments are real, and can be repeated easily at relatively little cost. In these pages you will find not only the theoretical reasoning which led to the author's unorthodox conclusions, but detailed, step-by-step instructions for building simple apparatus to demonstrate the existence of the inert gas energy fields. The last third of the book summarizes a number of medical case histories in which the inert gas fields were used – with surprising and encouraging results. This book is not for everyone. Its appeal is to those who do not feel threatened by new concepts, and who can contemplate the demise of an entire theoretical framework and see only the thrill of advancing yet another step closer to the final truth of reality.*

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