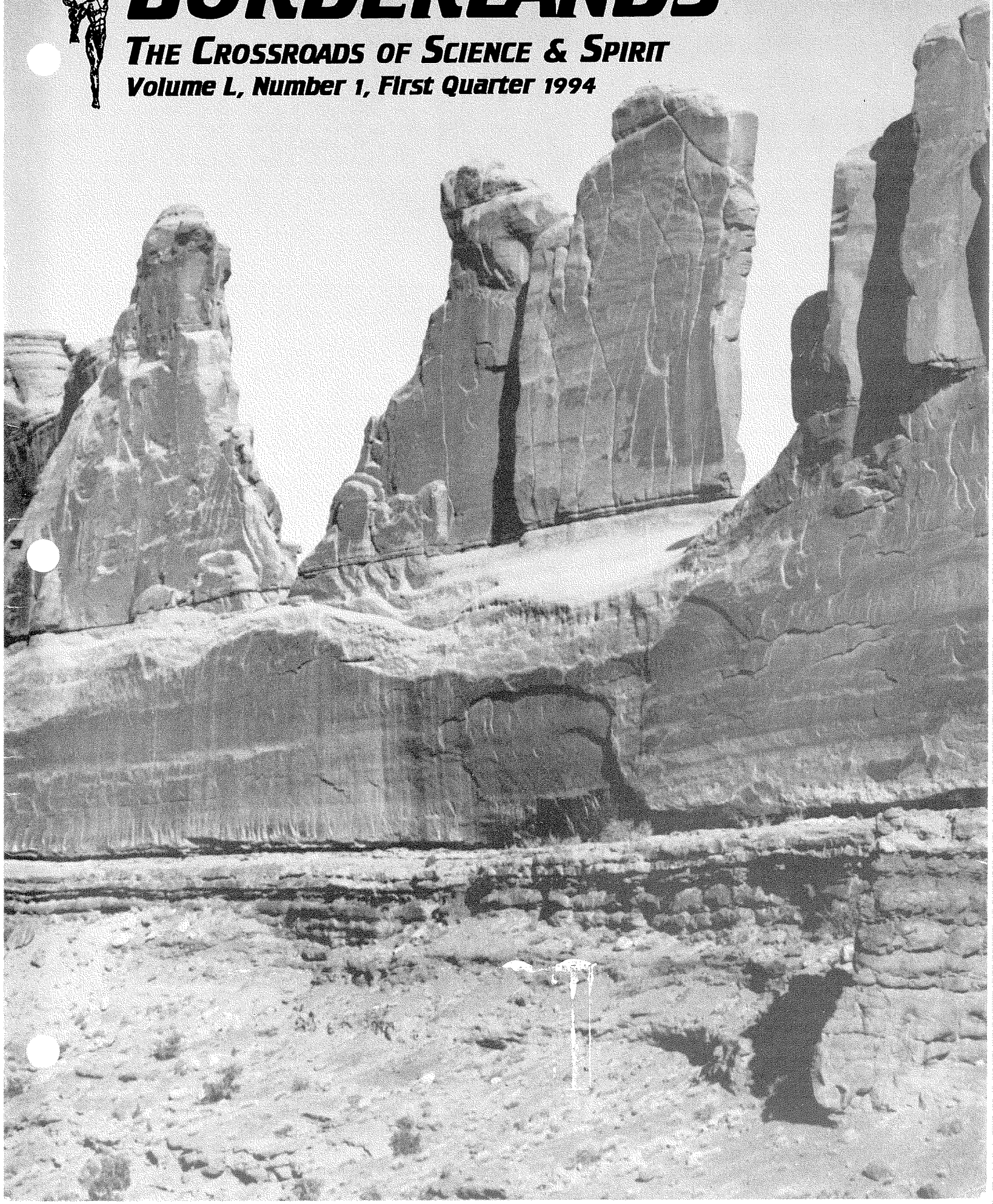




BORDERLANDS

THE CROSSROADS OF SCIENCE & SPIRIT

Volume L, Number 1, First Quarter 1994



BORDERLANDS

THE CROSSROADS OF SCIENCE & SPIRIT

Borderlands is a quarterly publication of Borderland Sciences Research Foundation, P.O. Box 429, Garberville, California, U.S.A. Phone 707-986-7211, Fax 707-986-7272. Contents © 1994 by BSRF in general and individual articles are © by the authors.

Editor-in-Chief

Thomas Joseph Brown

Associate Editor & Production Assistant

Alison Davidson

Associate Editors

Peter Lindemann

&

Michael Theroux

Borderland Sciences Research Foundation was founded by Meade Layne in 1945 for the purpose of investigating into realms normally beyond the range of basic human perception and physical measurement. B.S.R.F. is a scientific and educational foundation directed by Thomas J. Brown. Meade Layne directed from 1945 to 1959. Riley Hansard Crabb, from 1959 to 1985.

Borderlands originated as Meade Layne's **Round Robin** in 1945 and was changed to **The Journal of Borderland Research** in 1959, and then **Borderlands** in 1992. **Borderlands** is an information nexus for thinkers and doers on the frontiers of science and awareness.

Borderlands is available to members of Borderland Sciences Research Foundation. BSRF Membership fees are:

\$25/year, worldwide, Regular Membership

\$15/year, Senior Citizen Membership

\$50/year, Supporting Membership

\$100/year, Sustaining Membership

\$1000, Lifetime Membership

Membership entitles you to **Borderlands** for the duration of your membership term. It is non-voting and based on a sense of common endeavor. Single issue \$6.95

The main fund-raising activity of BSRF is to act as an educational clearinghouse for information, and to actively seek donations to fund our research.

Advertising Policy: We have no advertising policy and take no paid ads. What you see in this publication appears at the whim of the editor in the hopes the info will be used.

All published materials are presented for Informational and Research purposes only. Authors are solely responsible for the information and opinions they present. This material is not to be construed as expert opinion or medical advice, it is research into the **Borderlands**...



Riley Hansard Crabb, 1913-1994

As we head to press we have received news that Riley Hansard Crabb has died in New Zealand following a serious stroke. From 1959 to 1985 Riley directed Borderland Sciences Research Foundation and edited this magazine under title of *The Journal of Borderland Research*. Riley also wrote and lectured widely on Radionics, Unidentified Flying Objects and the Western Mystery Tradition. We are preparing a look at Riley's work for the next issue.

No one was more ready for rebirth into the Great Beyond than Riley, who was very well studied in the subject of the invisible worlds beyond our senses. Riley was keen to point out that "The input of the senses don't provide us any answers to the questions of life, they only pose more questions."

BORDERLANDS—Volume L, Number 1, First Quarter 1994

TABLE OF CONTENTS ...

HEALING THE HURT HOME

Roy Anthony Shabla ... 1 - 4

REQUIEM FOR RADIO

Eric P. Dollard ... 5 - 7

PRINCIPLES OF WIRELESS POWER

Eric P. Dollard ... 8 - 11

WORLD SYSTEM OF WIRELESS TRANSMISSION OF ENERGY

Dr. Nikola Tesla ... 12-14

CURRENT MICROWAVE OVEN SAFETY QUESTIONS

Michael Riversong ... 15

FOUNDATION FOR A NEW THEORY OF COLOR

Guenther Wachsmuth ... 16 - 18

NEW AGE TOTEMS AS AN ATAVISTIC ACT

Chinchilla ... 19

IRON BODY — TE BU SAN QI GONG

Dr. G. K. Knowlton ... 20 - 21

THE PUNDIT CURMUDGEON: *NON-RETINAL VISION*

E.D. O'Brian ... 22 - 23

ON THE NATURE OF ELECTRICAL INDUCTION

Bruce DePalma ... 24 - 27

THE REBIRTH OF PAN

Book Review by Jorge Resines ... 28 - 34

BRENDEN THE BOLD: DID HE EVER REACH THE AMERICAS?

George A. Agogino ... 35

THE ROUND TOWER AT NEWPORT

Michael Theroux ... 36 - 37

LAKHOVSKY MWO GALLERY

Photos by Hessel Hoornveld ... 38 - 39

THE B.S.R.F. BULLETIN BOARD ... 40 - 49

HEALING THE HURT HOME

A STUDY OF ARCHITECTURAL ECOLOGY

by Roy Anthony Shabla, Ph.D.

The purpose of this paper is to document and discuss certain modalities for clearing unhealthy vibrations from the living space and also to state proposals for recreating that space into a place of vitality and peace. I will make use of philosophy and techniques from both Eastern and Western cultures, and will discuss those philosophies and techniques as is appropriate to each situation.

The subject for analysis is a one-story, Spanish style home in a suburb of Los Angeles, California. It dates to 1926-28 (city and county records do not precede 1933, thus the approximation) and has had various owners and remodellings. Most of the work was done before building codes were instituted, and even relatively recent work was accomplished without the benefit of permits.

Due to the precise circumstances of this house, it is an ideal subject for this analysis because it contains examples of almost every vibrational problem that occur in architectural ecology. Also, it is pertinent to me because I have recently moved into the house and am making it my home and office, and want it to enhance my health, not deplete it.

For analysis, I use a pendulum. While there are various devices available for different aspects of architectural analysis, I prefer using a pendulum for everything. Not only does it save the expense of equipment, but it gives a consistency and experience to the readings that task-specific equipment cannot. The pendulum also can be used to test things for which there is no equipment designed to test. And the pendulum has the potential to be more sensitive (and thus accurate) than electronic equipment, depending, of course, on the operator and other conditions. (This does not include radi-
onic equipment which, among other things, enhances pendulum work.)

The house (referred to as "Casa La Reina") has changed its energy dramatically in the past nine months, and, with the proposed physical alterations, should become a place of healing and tranquility. This paper proposes to show how the changes began. Psychic, geopathic, and electromagnetic stresses must first be evaluated and cleared if there is to be any real healing done on the site. It is with these issues that all architectural ecology evaluations should begin.

PSYCHIC STRESS

I detected great psychic stress in the back

bedroom, at the place where the previous owner committed suicide in bed with a gun. Burning sage on the spot with the direct intention of removing this stress brought relief for about ten minutes. Repeated burnings brought relief for about half an hour. Since psychic stress will cling to areas of geopathic stress, I was not surprised to find that the exact point was the intersection of two geopathic lines. After completely removing the geopathic stress (discussed later), I employed a technique for energy transference using my own body as intermediary/catalyst and released the energy from the spot while saging. It has not been a problem since. (Note: remember: always open a window when smudging so the smoke—which is the vehicle—can escape, otherwise you are not clearing the energy.)

A second area of psychic stress was at the bathroom shower. While this was also a geopathic area, and while the psychic stress was not as great, it did not clear after removing the geopathic stress because it was continuously being "re-infected." The spring latch on the shower door was too tight, making the door difficult to open and close, frustrating the psyche. Also, the shower head shot the water directly into your face, making one feel oppressed. After adjustments to these problems, the stress was easily dissipated with saging.

There were a few other, minor areas of psychic stress in the house, and also a general feeling of oppressiveness and misery. The previous owners were shut-ins, ill and elderly. The windows (and some of the doors) were covered with blackout drapes always closed so the house was as stifling as a tomb (which, of course, it was). Sunlight, fresh air, music, and occasional saging now keep the house clear of psychic stress. A professional psychic reader tells me the house now feels fine, but suggested I occasionally sage old photographs of the house (I should have known this. I keep the photos for documentation.) because the memory of the negative energy patterns lingers with the photographs (as it can with almost any object, to some degree, so it is best not to overlook anything. Remove furnishings if necessary. I got rid of most of the furnishings from Casa La Reina). Subsequent visits by the psychic found the atmosphere pleasant and "grounded."

Once having cleared psychic stress from an area or object, it is important to re-pattern the energy there. The simplest way is to create and

attach a positive memory to the area or object so that your own psyche will automatically and continuously re-pattern the energy of the area/object in a positive way.

More issues of psychic stress are discussed in "Chi Stress."

GEOPATHIC STRESS

As previously mentioned, I detected two lines of geopathic stress in the house which intersected in the back bedroom. The area of intersection was like a pool measuring approximately 10 square feet. The previous owner's bed was within this area which probably contributed to his holistic ill-health (besides being generally ill physically, he was renowned for his meanness and bigotry; he salted the garden so nothing would grow—that's miserable; and as previously mentioned, shot himself within the geopathic zone). Besides the area of intersection, the lines themselves cut through vital parts of most of the rooms in the house, eliminating the possibility of arranging furniture and living space around them. The geopathic stress had to be removed.

The first thing to do was to mark the geopathic lines at the perimeter of the property with blue paint. This gave me four points with which to work. Some people say you must know exactly the kind of geopathic stress with which you are dealing in order to be able to remove it. I don't believe this is necessarily true, as long as you deal with all the factors.

You may be familiar with "G Spot" devices (copper wire bent in the shape of the letter "G".) They have many different names, but this is the simplest. These devices are used to retard linear geopathic stress. My version goes something like this: Take a minimum 22 inch piece of blue-coated copper wire and find the negative end. 6 inches from that end bend the wire 90 degrees. Repeat this to have three sides of a square. Make the next side 2 inches; and then bend the wire towards the center of the square 2 inches to complete the "G" shape. Staple this to a piece of wood approximately 8 inches square. Now, find the negative end of a 6 inch piece of wire (blue-coated) and staple that about a half inch from the inside end of the "G" (see figure 1). Spiral the wire loosely and bend the tip into the wood (make an indentation in the wood with an ice-pick or a Phillips screwdriver into which to direct the tip of wire). Staple in place. This device will capture the radiation

coming into the open end. It needs to be buried 10 inches deep, upside down, with the open end facing away from the property along the geopathic line. Before burying it, consider this: on the back side of the wood, staple a prayer from your own belief system. On mine, I have a generic prayer, very short, asking the earth and sky to take away the bad stuff and give us the good stuff. Practitioners of radionics as well as muscle testing can attest to the power of "the word" and can demonstrate its effectiveness. Also, the memory of the words allows my psyche to hold a positive pattern for its perception of the area, even when I have no conscious thought of it. This technique is used in both Eastern and Western cultures, but is best known in Black Hat Feng Shui (a form of Chinese architectural ecology).

I made four such devices and installed them properly (see Figure 2). (It is important to put these devices at each end of the geopathic line for two reasons: 1) some geopathic lines are a ground response to electromagnetic stress from power lines—one of mine is—and AC current must be cleared from both directions; and 2) "river-type" geopathic lines can be blocked "upriver," but often the radiation will be drawn from below into the "vacuum" of the cleared area.) After burying, place a rock over the site.

It was very interesting to take readings after installing these devices. Almost immediately, one foot around the site of each installation was clear; within fifteen minutes it was clear six feet away; and then after half an hour, each device was clear at least ten feet toward the house.

Other methods for halting ground radiation include driving iron rebar or cobalt blue-painted stakes into the path of the radiation; or a copper coil, or other flat-spiral forms, (especially effective for "hot spots"), etc.

Readings inside the house still showed a life-negative energy because the depth/strength of the radiation lines is too great, so I decided to consider professional equipment. While "shopping" the possibilities and prices, I came across **McKusick Biomagnetic Research** which offers for \$10-35 devices to clear geopathic and electromagnetic stress. Like the "G" spots, they did not adequately clear the radiation from Casa La Reina, but I believe they were designed to be "spotfixes," and may

function better under conditions less stressful, and are worth the nominal fee.

The *Dielectric Resonator*, a flat-spiral device said to clear earth radiations, when placed at the point of geopathic intersection, cleared radiation at the site and an area extending less than 2 feet and would function well under a bed.

Beyond that, the "signal is broken" as I call it—I do not know any other way to describe this pendulum action except to refer to a radio signal that comes in and out of reception with lots of static. This hesitant neutralization extends only 5 feet. According to the manufacturer, in some instances this device can clear a much greater area. It is recommended to be placed directly under the person for best results. Other devices

from the McKusick Studio will be discussed under "Electromagnetic Stress."

Because of the expense of electronic equipment, I could not compare "en mano" various machines that clear geopathic and electromagnetic stress. I had to study ads, catalogs, ask questions and look at the reputation (if possible) of each designer. I finally settled on a Copen Laboratories *Total Home Protection Unit* (\$555). It may be that a unit offered by Peter Lindemann (The *SpaceCrafter*, \$500) is of similar quality. There are machines that are less expensive, by Copen and others, but I did not get the feeling they would completely clear the radiational problems of Casa La Reina.

The *Total Home Protection Unit* did (does) what some people say is impossible: instead of neutralizing the life-negative energy, it changes it to life-positive. It may be (I'm sure) this effect is enhanced by the "G"-spots and the McKusick devices, nevertheless it is rather amazing. Also, because of the "G"-spots, the effect reaches throughout the property—well beyond its 6 square meter speci-

fications.

As I understand it, the *Total Home Protection Unit* generates the waveforms it is neutralizing, thus bringing the external waveforms into resonance and achieving harmony. If you test with a Tri-Field meter, however, you will still get a negative reading after installing the unit because the meter measures magnetic fields and assigns them all as negative. With the *Total Home Protection Unit*, the magnetic field is still there, but it has been altered to be life-positive. This is an important distinction unavailable through electronic testing.

Of interest: a flat, antenna device from Czechoslovakia (DARZON, \$20) is said to absorb geopathic radiation for 10 feet around itself. I held the device in my hand a moment and sensed a nice energy. Other than that, I have no experience/testing and cannot comment.

ELECTROMAGNETIC STRESS

Briefly, unprofessional electrical rewiring (a result of an electrical fire in the pre-permit electrical wiring) elicited a wide variety of readings for electromagnetic stress. As with the geopathic stress, the *Total Home Protection Unit* cleared all vibrational problems. This includes radiation from television, computer, and fluorescent lights (which are not used and will soon be removed). Of greater interest may be the effects of the McKusick devices.

After installing the McKusick *Neurad Roll* (\$35) as prescribed on the incoming power lines, the negative electromagnetic field of outlets and appliances throughout the house was neutralized. A very shaky, broken neutral, but nevertheless neutral throughout. I consider this impressive. I installed a similar device (the *Tri-pak*, \$35) in another house with the same results. These, however, do not protect from video screen radiation, etc. It is sug-

gested an *Electronic Smog Buster* (see below) be placed at each site of internal radiation for neutralization. (Remember: the readings after installing the *Total Home Protection Unit* are life-positive, not neutral.) It would be interesting to try installing three *Neurad Rolls* on the incoming power line to see if the neutralization would

Figure 1

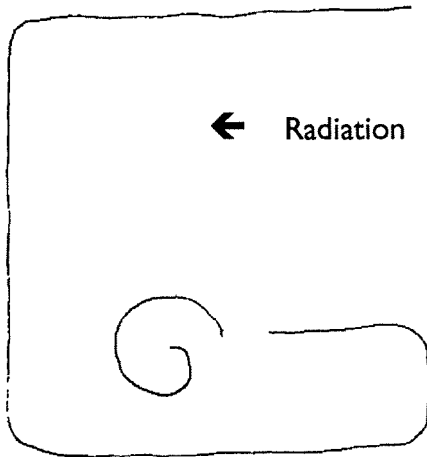
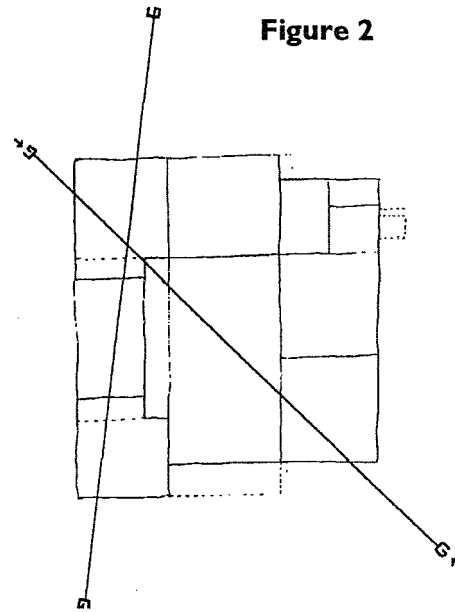


Figure 2



be more confident.

The McKusick *Electronic Smog Buster* (\$10) can be placed on top of the television to provide radiation protection. With the television off, the effects are good to 8 feet. With the television on, there are two considerations: 1) if you are directly in front of the television, (after a couple of minutes) the effects of the device are good beyond 10 feet; however, 2) if you sit to the side of the television (at approximately a 40 degree angle) the effects begin to diminish at 5 feet and are gone by 8 feet. These readings were all taken before the *Total Home Protection Unit* was installed, and thus other radiation (geopathic and other) may have interfered with the *Electronic Smog Buster's* effectiveness. In a pristine environment, the results may be better. Also, video-screen radiation varies widely from one manufacturer to another so results may be better with a different television.

Of interest to the reader may be a now infamous article by Peter Lindemann (**Fizix Korner**) in the *Journal of Borderland Research*, July-August 1992, on oranur (life-negative etheric energy) and the Copen *Radiation Rectifier* (the precursor to the *Total Home Protection Unit*). It is a very important article for anyone interested in pathogenic radiation.

Just a note here on the use of magnets in architectural ecology: one strong magnet should be placed on the ground-line of the electrical pole which feeds your house to help prevent ground return (AC) geopathic stress. Two strong magnets should be placed approximately nine inches apart on the water line coming into your house to polarize the water. Of course, a total filtration system (utility as well as culinary) is preferable, but until that is affordable, two magnets will have a reasonable effect. It takes three days to manifest the change. One magnet placed conveniently outside the front door (in a bowl of water) will help balance the Chi energy of all entering the house (see "Chi Stress"). Always use the north side of the magnet for any healing.

Clearing geopathic and electromagnetic stress (with psychic stress) is of primary importance because the health of people, animals, and even plants comes into jeopardy with even casual exposure. Everything from nervousness, headaches, and apathy to hormonal disorders and all types of cancer are attributed to life-negative radiations. This is the place to start with any healing: not only does radiation cause disease, it also inhibits the healing process itself,

by preventing the brain from producing alpha waves during sleep, promoting hypertension, elevated blood pressure, and psychological disorders, because there is no relief from the stress of the awake state.

CHI STRESS

Chi is the Chinese term for vital energy and it includes environmental as well as personal energy. The Chi of a building can flow smoothly, be blocked or upset, or dissipate as it can for a person, with similar consequences.

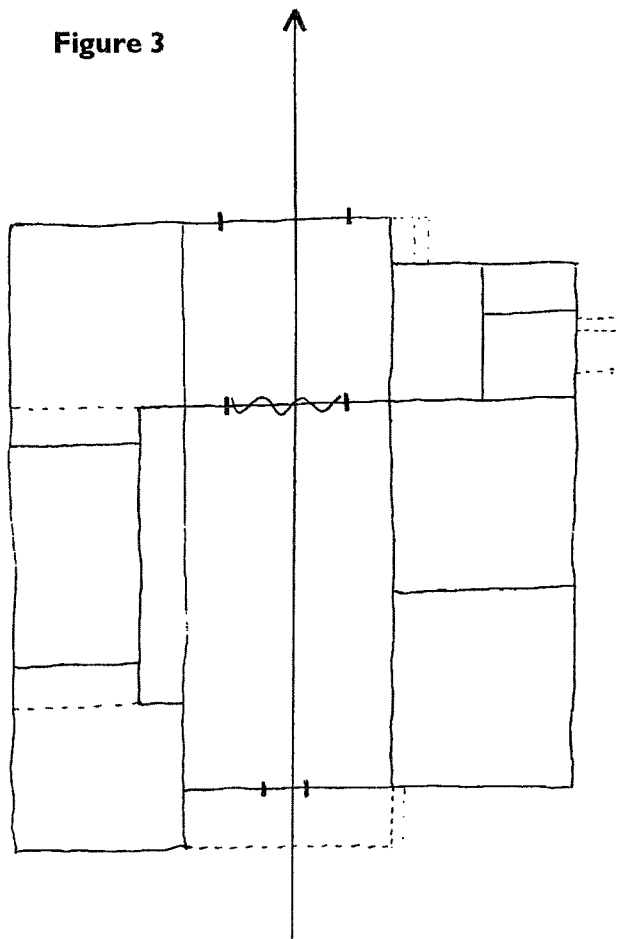
Various traditions hold rules for identifying Chi stress, and most are still valid today; but with modern (especially city) architecture, there are often situations not specifically covered by tradition. In such instances, you have to "feel"

points. One, as previously mentioned under "Psychic Stress," was the bathroom shower. The difficulty of opening and closing the shower door was a traditional Chi problem; whereas the shower head blasting you in the face was a modern one. If you just pay attention to how your subconscious reacts to the house in daily interaction, you will find the trouble spots and begin to rectify them.

The layout of rooms and furnishings is at the core of Feng Shui. According to tradition, rooms are placed in such a way as to peacefully unfold before the person entering—neither too cramped nor too quickly—and furnishings are placed to invite the visitor but retain power for the master of the house.

I will select just a few typical Chi problems in Casa La Reina to discuss:

Figure 3



1. With the front door open, you can stand at the curb of the property and see through the house, out the large back window and to the back fence. Three doors and/or windows lined up (see Figure 3) create a Chi funnel, whooshing all the energy straight out of the house. Researchers working with shape-energy (e.g., pyramids) can verify this. There are various solutions to this problem but I have decided, for Casa La Reina, it would be best to hang a curtain over the middle doorway, causing the Chi to meander through the rest of the house. This also creates more privacy between the living-room and den.

2. When opening the door to enter the hallway across from the main bathroom, you see one-third bathroom door and two-thirds wall. This is very unsettling to the personal psyche. The best solution is to hang a small landscape painting, preferably round, on the wall so that it occupies the center of your view when entering the hallway. If the doorway you are passing through frames the point of focus of the room you are entering, the Chi will not become scattered. This same solution applies to the wall you see when entering the hallway from the

bathroom, where a round mirror will draw you out of the bathroom.

3. The back side of the house had an area where the Chi was so stagnant no one would walk there. It is a narrow strip which is bordered by the house and the neighbor's fence, and dead ends into the front wall. A very lovely solution resulted. I placed pedestals of varying heights in such a way that you could not walk into the area

the problem and the solution. It was the "sensitives" of ancient China who originally outlined Chi tradition, and it is modern sensitives who solve modern architectural problems.

Before I continue, let me just state that modern Feng Shui includes geopathic and electromagnetic stresses as forms of Chi stress—virtually every aspect of architectural ecology can be viewed in terms of Chi.

Casa La Reina has a number of Chi stress

in a straight line, but had to meander in soft "S" shapes. (see Figure 4) Since the daily light on the area is partially shaded, I am able to grow fuchsias, camellias, orchids, thus creating an inviting jungle garden that has coaxed Chi and people into the area. A wild-bird feeder activates the Chi at the terminal end of this mini-garden.

All of the above and other Chi problems are covered in basic Feng Shui books, along with color, furniture placement, and neighborhood problems. Casa La Reina will make use, as much as is possible, of all these techniques. Many things, too numerous to list here, have already been implemented to the betterment of the psychic Chi energy of Casa La Reina and its inhabitants.

Just a note on the use of water in architectural ecology: the strategic placement of water can have a great beneficial effect on the energy of the site. Three small fish ponds at the back fence block geopathic stress, soothe the psyche and expand the Chi, and make the place "someplace." Similar effects are received from a birdbath at the front of the house. A bowl of water next to the front door, Chinese tradition holds, will bring good luck to the house because demons are absorbed into it (like radiation) and cannot enter. The negative ions created by moving water (e.g. a fountain) can benefit a house by placing the water upwind of the house so the negative ions will come to it.

INDUSTRIAL STRESS

Bau-biologie is a relatively new form of Western "Feng Shui." It deals primarily with building materials, advocating 100% natural, non-toxic walls, wall-coverings, floor and floor coverings, furnishings, heating and cooling and lighting equipment. Total application of its philosophy is impractical, if not impossible, if you are dealing with a preexisting structure. If you are building a home, however, it is worth looking at the information.

Nevertheless, Bau-biologie makes the very valid point that we are poisoning ourselves with toxic gases from synthetic fabrics, foams, and even chemically treated or cleaned natural materials. The Bau-biologie solution/alternative to these furnishings is very expensive and beyond my means at the moment, but a good air treatment device is not.

There are many different air treatment

devices and air treatment philosophies. Study the materials yourself, deciding what features you need. Remember, it is more important what the advertisers are NOT saying than what they are saying. My unit (the Fresh-Aire FMC-330, \$450) is as controversial as the next, but I am very happy with it. It has two different filtration systems, plus it generates negative ions and ambient ozone. It can be used continuously, is not too loud, and does not make a discoloration on the wall. I do not feel the need to use it continuously, but am pleased with its operation when it is in use.

Less expensive air treatment can be achieved with plants. A succulent (such as a Jade Plant) will clean the air at night, and a philodendron or Boston Fern will clean the air during the day. While they will not remove

ability to remove toxic gases.

As previously mentioned, Bau-biologie philosophy is too radical and too expensive for me to implement at Casa La Reina. Instead, I have instituted a radionic treatment program which treats the house as an organism with chakras, organs and glands, and toxins. (Chi can be considered its circulation.) Through this form of treatment, I hope to dispel physical toxins, as well as any emotional/spiritual ones which may linger, drift in, or be created. It is too soon to comment on its effectiveness.

SUMMARY

One year ago, my roommate (who moved into the house two months before I did) experienced various physical and emotional symptoms of a "toxic" house: from inability to sleep and a tightness in the chest on rising, to "eerie" sounds, blinking lights, and general uneasiness. These things have all gone away.

I have tried to show in this paper how and why the energy of Casa La Reina changed over the past months, and give suggestions as to how others can change the energy of their environment. When healing anything—be it house or human, plant or pet—I believe you must begin with the essential before treating the physical. This is why I began with psychic, geopathic, and electromagnetic stress. Painting the walls would have had little or no lasting energetic effect without clearing those problems first. The exact same thing goes when healing people.

There is much work still to be done at Casa La Reina, but with this beginning, it is insured that if the course is not altered, Casa La Reina will be a place of health and tranquility.

Resources:

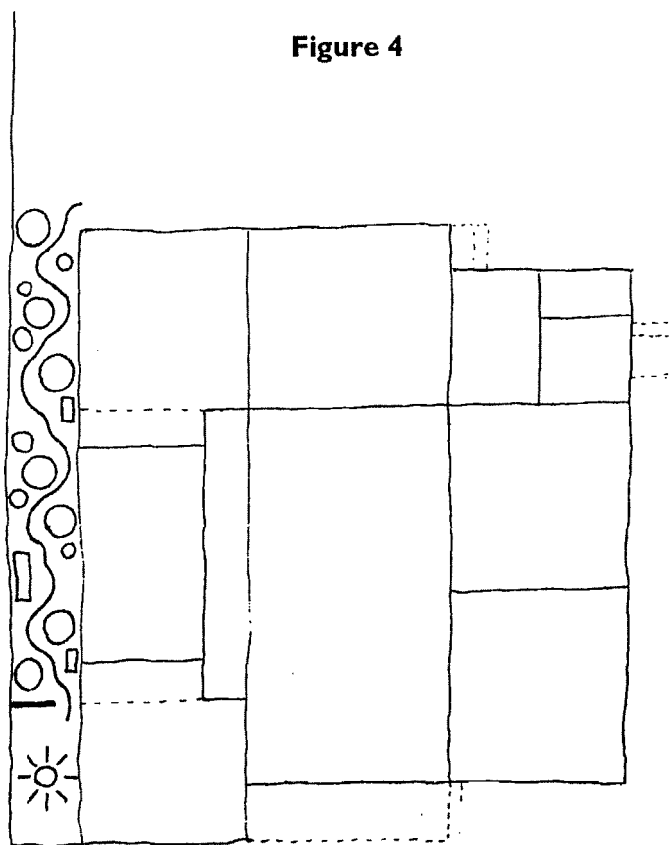
McKusick/Biomagnetic Research, RT. 1, Box 35-D, Globe, Arizona; PH (602) 425-5051, offers inexpensive and informative booklets to assist with architectural ecology, as well as numerous devices. If you are a novice in the area, it is well worth looking into.

Bruce Copen Laboratories, PSITECH, POB 291, Wadsworth, Illinois U.S.A.; 800-726-1880

Borderland Sciences (Lindemann SpaceCrafter), P.O. Box 429, Garberville, California, U.S.A.

Essentia Communications, Inc., (DAR-ZON), 100 Bronson Avenue, Suite 1001, Ottawa, Ontario K1R 6G8, Canada; 613-238-4437

Figure 4



odors as quickly as an ozone generator, they are an effective air filtration system if you are reasonable about size of plant/size of room.

Another effective and inexpensive air treatment device is zeolite, a naturally occurring mineral-hydrated aluminosilicate—whose properties include a negative ionic charge which attracts and absorbs positively charged odors. It is said to remove pet odors and fire and flood damage odors, as well as many others. The stone itself is cleansed by exposure to sunlight. I do not, however, have information on its

REQUIEM FOR RADIO

BY ERIC P. DOLLARD, WIRELESS ENGINEER

In this present day it is obvious that real Tesla research is dead. Just go to a Tesla conference or meeting and you will find that no meaningful, useful information on Tesla is readily available, except perhaps at bookstands—in books written by Tesla himself. Giant spark machines (that amaze the crowds but provide no utility), Tesla-contradicting theories (by acclaimed Tesla “experts”), alleged unverifiable government goofiness (by questionable characters with several names), and gold panning (doesn’t that say it all!!) have all taken the place of clear thinking on Tesla’s work. Hence, Mr. Dollard has provided us with this eulogy for serious Tesla research. We are aware that there still are a few researchers who understand this and see this happening, but the field suffers greatly and it is up to those individuals who understand the true wireless technology to make their stand. These pages are open to comment and questions on the subject.

THE BEGINNINGS of the concept of radio, that is the transmission and reception of the human process through empty space, emerged from the work of two prominent scientists of the late 19th century. These were Nikola Tesla and Heinrich Hertz. The experiments of Hertz led to the dipole antenna and the electromagnetic system of wireless communication. Those of Tesla led to the magnifying transformer and a non-electromagnetic system of not only wireless communication, but the wireless transmission and reception of horsepower. Tesla’s wireless not only carried the information but also the power to run the radio and light the house containing it. Heinrich Hertz had become famous and his name appears in all the books and in common terminology. Tesla, however, is forgotten completely.

Tesla’s discoveries, unlike those of his contemporaries, were based upon primary concepts. Thus Tesla possessed a more fundamental conception of electric

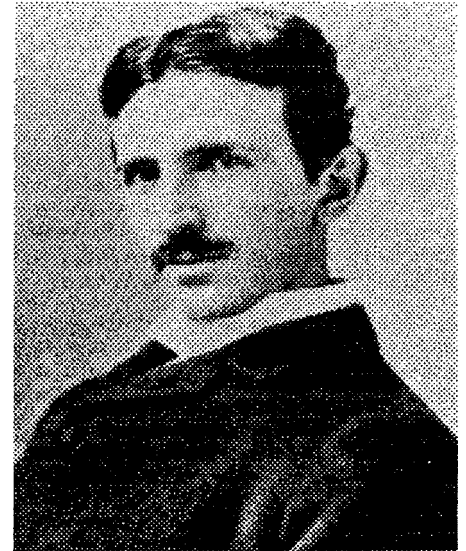
phenomena allowing his inventions to be more far reaching than those of Edison, Marconi, etc.

At the beginning of the 20th century the Edison system of illumination had become well established, thereby placing the gas illumination companies out of operation. In addition, the Tesla system of power generation and transmission had also become well established, thereby eliminating coal consumption by small factory and shop prime movers. It was becoming obvious that the consumption of fuel was on the way out and spontaneous energy production was becoming the Holy Grail of the electrical engineering community. Emerging corporate interest intervened and Edison was diverted into General Electric Company and Tesla was diverted into Westinghouse Electric Company. Tesla’s electric wireless discoveries and inventions were shunned by these corporate interests, and thereby the advent of radio was to be delayed by a decade or more.

The electric waves of Tesla’s non-electromagnetic research were, however, to become a major complication in early



CHARLES PROTEUS STEINMETZ



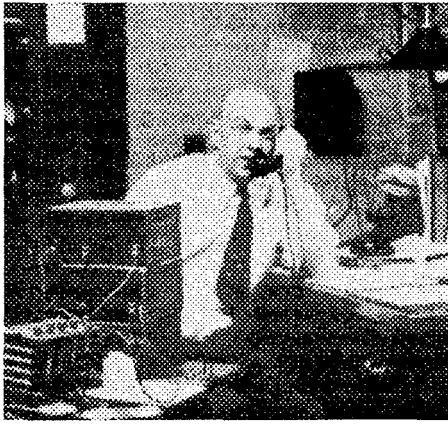
NIKOLA TESLA

electromagnetic power transmission. Under certain conditions electromagnetic power systems generate strong Tesla waves. These waves often damaged electrical windings and insulators, and were non-detectable at times.

This condition led General Electric laboratories and their brilliant mathematical genius, Charles Proteus Steinmetz, to undertake an extensive study of high frequency phenomena. This research quantified the design and construction of many important devices for the construction of Tesla’s electric wireless system.

At the same time G. Marconi was engaged in basic experimentation with a few of Tesla’s patents. Marconi modified the system outlined by Tesla thereby developing his own form of radio based on Tesla’s ground transmission. Upon completion of Marconi’s experiments he contracted with General Electric. G.E. of course was ready since Steinmetz had just completed his theories on high frequency electricity. Five global wireless plants were constructed and worldwide wireless was on its way. World War One had just been won.

Marconi was to soon find that he was to go the route of Edison and Tesla into corporate consumption. The U.S. government took control of the Marconi plants and placed Marconi’s highly ambitious chief telegraph operator, David Sarnoff, in charge. The Radio Corporation of



EDWIN H. ARMSTRONG

America (R.C.A.) was born. Sarnoff was to become the nemesis of every radio inventor of the 20th century.

G.E. continued to manufacture the equipment for R.C.A. until R.C.A. could set up their own plants. R.C.A. began the development of the present electronic system of radio, based upon the electronic amplifier tube, or simply electron tube. R.C.A. scientists such as Carter and Beverage went on to develop the Hertzian or electromagnetic system of transmission. These operations sealed the fate of the Tesla electric wireless and the Marconi equipment was quickly dismantled and junked. Radios now required batteries since the transmitted energy was dissipated into the energy destructive process of electromagnetic wave generation.

About this time (1920) the electron tube was to open a wide field of 20th century research, just as the electric wave transmission did in the 19th century. As with the 19th century electrical engineers and their progress to spontaneous energy, the 20th century electronic engineers progressed to self-sustaining radio tubes. The fusor tube of Farnsworth actually developed enough energy to power a factory.

The origins of the electron tube can be traced back to the experiments of Edison. Edison discovered the emission of cathode rays, or electrons, emanating from the thermionic filament in his lamps. Upon inserting a small metal collector plate, or anode, inside the lamp he found that a current could be drawn off it, but not applied to it. The radio tube was born.

Edison had no interest at the time,

since radio did not yet exist, but the research of his British contemporary J.J. Thompson quantified the understanding of cathode rays. Fleming took this discovery and applied it to the detection of radio waves. DeForest improved the design by inserting a throttle shield to control the amount of emission reaching the collecting plate, or anode. This created the electronic amplifier tube, ushering in the electronic era.

Nikola Tesla and Philo Taylor Farnsworth II, in their time, created their own unique forms of radio tubes. These tubes were to operate upon principles radically different than the thermionic or hot cathode tubes utilized by R.C.A.

The tubes of Tesla did not possess a thermionic emitter of rays or particles. Many of his tubes are what are called cold cathode tubes. The cathodes of Tesla's tubes often became ice cold during operation, in complete contradistinction to the hot cathodes of the modern electron tube. Tesla's tubes often operated with no physical electrodes within the bulb. Farnsworth also developed tubes with cold cathodes and electrodes. His tubes even went so far as to be self-sustaining, requiring no external source of energy.

The studies of J.J. Thompson, Tesla, Farnsworth and others advanced the radio tube into the large particle accelerators of today and played a crucial role in the development of atomic theory.

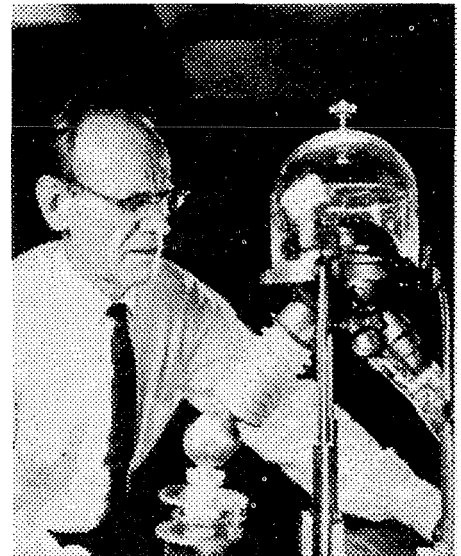
About the time that Einstein was developing his theory of photo-electric emission and the photon Farnsworth was envisioning the scanning television system. By his 21st birthday he had developed the photo-electronic television camera tube. Electronic television was born (1928).

The bulky and ineffective mechanical televisions of R.C.A. were no match for the ultimate simplicity of the Farnsworth tubes. This, of course, did not settle well with Sarnoff and R.C.A. Sarnoff began a major harassment campaign on Farnsworth. At the time R.C.A. was busy gaining patent control over the entirety of Radio and T.V., Farnsworth posed a threat to this endeavor. Sarnoff was successful in delaying the advent of television for over a decade, the time required for R.C.A. to

develop its own electronic T.V. tubes and time for the Farnsworth patents to expire. Farnsworth's name and all notice of his epochal researches have disappeared from the history of television and technology.

Despite these events, Farnsworth continued his cold cathode vacuum tube experiments and developed a unique tube called the multipactor. This tube exhibited the curious phenomenon of self-sustaining operation. Energy came in from seemingly nowhere and appeared on the collector plates. Farnsworth had discovered the virtual cathode, which, despite no physical existence, was a prodigious source of electrons. While Farnsworth-I.T.T. Labs was creating the infrared and starlight vision multiplier tubes required for the military, he engaged himself in extensive study of the virtual cathode and virtual anode. This research led to the development of the fusor tube, this tube creating its own electrical energy and enough extra to light thousands of Edison lamps. Needless to say, I.T.T. halted Farnsworth's research. Farnsworth was never able to get his research going again and died of bleeding ulcers, sent to the grave by Sarnoff and his ilk. Edison vs the gas company would never repeat itself.

Farnsworth was not alone in R.C.A. induced corpicide. Edwin Armstrong was to suffer the same fate. The brilliant electronics genius was to gain position rapidly in the young R.C.A. His inventive



PHILO TAYLOR FARNSWORTH II
with atomic fusion apparatus, c.1962

ability was not missed by Sarnoff and Armstrong was given adequate research facility. However Armstrong's eccentric behavior irritated Sarnoff and eventually led to a falling out.

Under R.C.A. Armstrong invented the electron tube circuits that serve as the basis for all radios made to this day. These were the regenerative amplifier and the heterodyne converter. The heterodyne principle of converting the nearly impossible amplification of wide range high frequency radio waves to simple amplification of a single low frequency was to give Sarnoff complete and absolute control of radio for the rest of his life.

Armstrong, of course, went on in his research of electron tube circuits and developed the major breakthrough in the high fidelity transmission of music. This was called frequency modulation, or simply F.M. This incensed Sarnoff who had gained control through the previous amplitude modulation system. At this point Armstrong was on his own with F.M. and successfully constructed his own F.M. system of broadcast stations and home receivers.

He was engaged in a constant patent war with Sarnoff who had control of his converter. Finally Sarnoff allied with the F.C.C. to put Armstrong out of business and thereby delayed the advent of F.M.



FOUR GREAT AMERICAN INVENTORS

commemorative stamp series issued in 1983 by the United States Postal Service to honor Edwin Armstrong, Charles Steinmetz, Philo Farnsworth II, and Nikola Tesla. This stamp series was initiated by the late Philo Farnsworth III, an inventor himself, who fully understood the valuable contributions of these great men.

radio for over a decade. In disgust and frustration Edwin Armstrong dressed in his finest clothes and leaped from his 13th story window into oblivion. Sarnoff now owned electronic radio completely.

Tesla declared them all fools for not using the system of electric wireless. Tesla further exclaimed radically new methods of creating and consuming horsepower, and electric rays from his tubes that were unaffected by distance. Tesla claimed the rays could be made so powerful that conventional armament was obsolete. His words fell on deaf ears as nuclear science was the rage at that time. The institution of modern physics had little use for Tesla. He died a few weeks after being hit by a taxicab, in 1943.

Electromagnetic radio was permanently established and nuclear science declared Tesla a "crackpot from Venus". The Second World War had been won. Farnsworth, however, made it through and began developing his own atomic theory, this leading to the fusor tube in 1960. His fate was sealed however. TV. and F.M. became the rave and Sarnoff was in "Fat City".

In a little over a decade Sarnoff bit the dust and R.C.A. was like a chicken with no head. The offspring of the learned nuclear doctors descended upon the facilities, destroying most of the equipment, with ample government assistance. R.C.A. is no more.

Anyone with knowledge of Tesla is now a crackpot and it is declared there will be no more electrical radio experiments again. It is 1984 and radio is dead at 100 years.

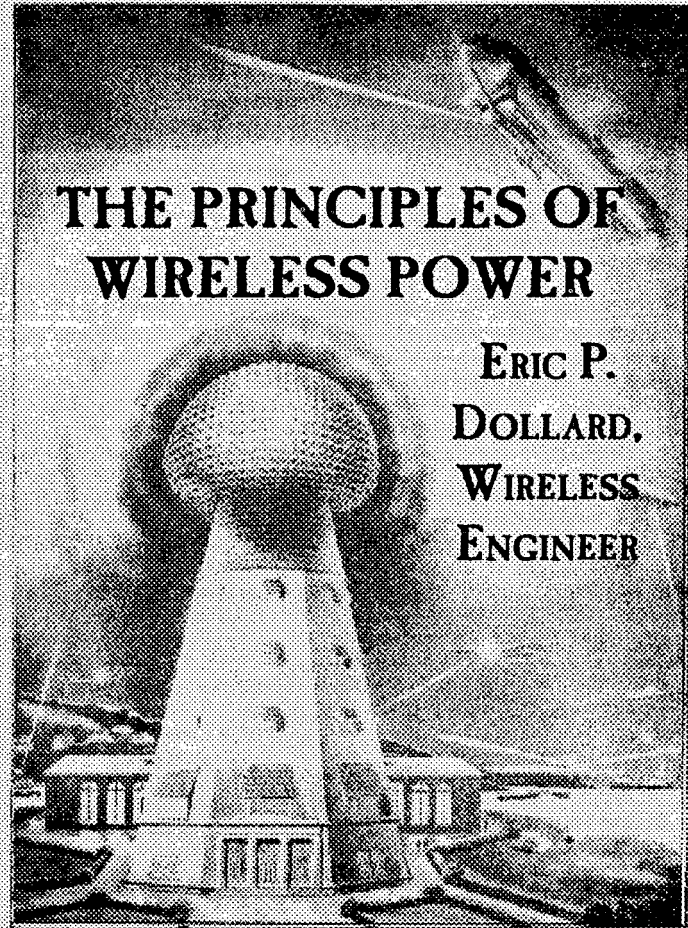
Now, in 1994, the last vestiges of the radio era are on the brink of destruction. The descendents of the inventors are all dying off. It can be seen that the main players in the advent of radio and television all developed methods and systems far beyond the crude self-destructive technology left behind by those corporate interests. The only question is will anything be done to correct the situation. It is up to you.

WHAT ABOUT TODAY'S SCIENTISTS?

The scientists from Franklin to Morse were clear thinkers and did not produce erroneous theories. The scientists of today think deeply instead of clearly. One must be sane to think clearly, but one can think deeply and be quite insane.

Today's scientists have substituted mathematics for experiments and they wander off through equation after equation and eventually build a structure which has no relation to reality.

Nikola Tesla



THE PRINCIPLES OF WIRELESS POWER

ERIC P.
DOLLARD,
WIRELESS
ENGINEER

NIKOLA TESLA AND THE TRUE WIRELESS

In the period from 1890 to 1900 Dr. Nikola Tesla was engaged in the systematic research of high frequency electric waves with the specific aim of developing a method transmission and reception of electric energy without the use of connecting wires. Inspired by Dr. Heinrich Hertz's experimental researches into the Maxwell theory of electromagnetic waves, Dr. Tesla developed various apparatus with the object of exploring the developments of Dr. Hertz. Tesla found his progress slow until he developed his oscillating current (O.C.) transformer, known as the Tesla Transformer, which allowed for his progress beyond the original experiments of Dr. Hertz and thus beyond the original theory of electromagnetism.

Tesla found to his dismay that it was not possible to demonstrate that the emanations from his O.C. transformer were akin to the transverse vibrations of light waves as theorized by Maxwell, which Dr. Hertz among others sought to verify. At this point Tesla began to doubt if the Maxwell theory had any validity. To quote "For more than 18 years I have been reading treatises, reports of scientific transactions, and articles on Hertz-wave theory, to keep myself informed, but they have always impressed me like works of fiction".

What Tesla had discovered was that the emanations from his O.C. transformer were of longitudinal-dielectric waveform, that is, in the form of ELECTRIC RAYS OF INDUCTION. This indicates the purpose of Tesla's extensive research into X-rays and kindred forms of radiation, which were considered longitudinal waves in the luminiferous aether by Tesla and his contemporaries.

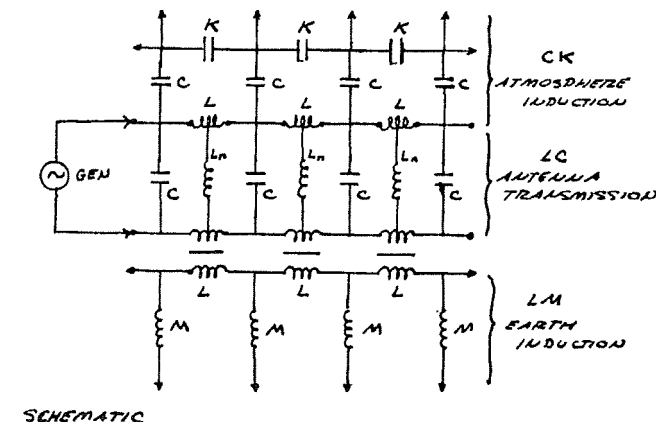
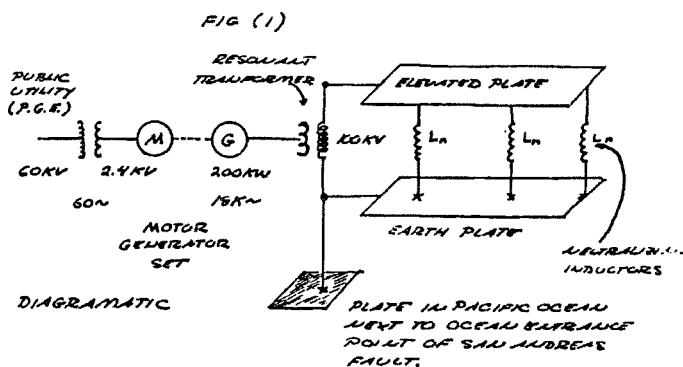
The theories of electric waves was of no concern to G. Marconi however, and by his adaptation of Dr. Tesla's fundamental patents

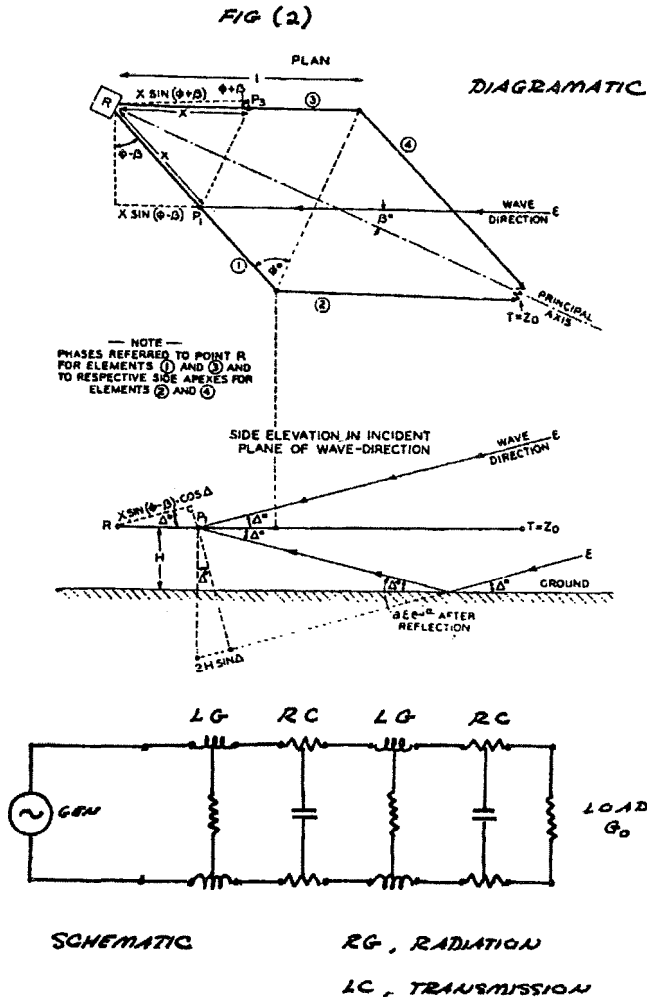
went on to establish commercial wireless communication. By 1919 Marconi completed construction of five high frequency power plants around the world. These plants generated currents at a frequency of 18,000 cycles/ second, produced by 200 Kilowatt motor-generator (M.G.) sets.

The alternators employed in these M.G. sets were fashioned after those developed by Tesla but became known as the Alexanderson alternators, after C.P. Steinmetz's protege Ernst F.W. Alexanderson. These alternators delivered currents to what is called the multiple loaded flat top antenna. A diagram and equivalent circuit of the Bolinas, California plant is shown in figure (1).

Upon completion of these wireless plants in 1919 the U.S. government established the Radio Corporation of America (R.C.A.) to take control of the plants constructed upon U.S. territory. R.C.A., Marconi Wireless Co., and others went on to develop wireless (now radio) communication based upon transverse, or Hertzian, waveforms. The culmination of the transverse wave antenna was the R.C.A. type "D" director, later to become the well known rhombic antenna, figure (2).

These developments firmly entrenched the use of Hertzian waves in the practice of wireless communication, thereby diverting interest from the waveforms discovered by Dr. Nikola Tesla. Tesla's progress in commercial development was further delayed by his absolute insistence upon establishing a perfect system, the "World System", of wireless power and communication. The World System was much more costly and complex than the simple installations of Marconi. To quote Dr. Tesla's thoughts about the development of wireless at this point in history: "The commercial application of the art has led to the construction of larger transmitters and multiplication of their number, greater distances had to be covered and it became imperative to employ receiving devices of ever greater sensitiveness. All these changes have cooperated in emphasizing the trouble and seriously





impairing the reliability and value of the plants. To such a degree has this been the case that conservative business men and financiers have come to look upon this method of conveying intelligence as one offering but very limited possibilities, and the Government has deemed it advisable to assume control. This unfortunate state of affairs, fatal to the enlistment of capital and healthful competitive development, could have been avoided had electricians not remained to this day under a delusive theory and had the practical exploiters of this advance not permitted enterprise to outrun technical competence".

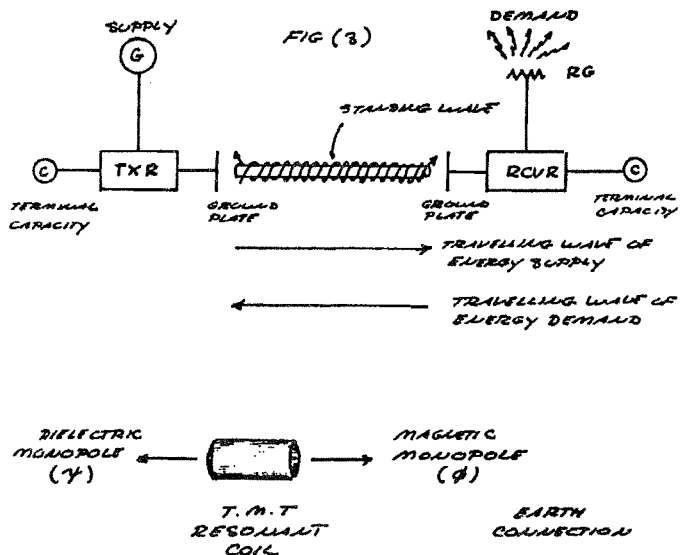
Dr. Tesla remained unswayed by these commercial developments and their impact upon scientific thought. Tesla understood that the transverse, or Hertzian, waveform was useless for the transmission of electric energy on an industrial scale. The scattering nature of these waves represents the primary limitation to efficient energy transfer, to quote: "Nothing illustrates this better than the recent demonstrations of a number of experts with very short waves, which have created the impression that power will be eventually transmitted by such means. In reality, experiments of this kind are the very denial of the possibility of economic transmission of electric energy." This of course brings to mind the recent proposal to transmit from a satellite in outer space megawatts of photovoltaic energy via a microwave beam down to the earth's surface.

THE TESLA SYSTEM

The system of transmission and reception of electric energy

without the employment of connecting wires, or waveguides, as conceived by Dr. Tesla is not the propagation of any type of electromagnetic wave, nor is it the excitation of the earth-ionosphere waveguide! Tesla's system employs resonant actions along lines, or rays, of ELECTRIC INDUCTION, these lines standing between the transmitter and the receiver, figure (3). The apparatus for establishing these lines of induction is called the Tesla Magnifying Transmitter (T.M.T.). The T.M.T. is a system of resonant transformers harmonically balanced to the electric condition of the earth. The monopolar nature of the T.M.T. induction facilitates the ease of transmission and reception that this apparatus exhibits.

These lines of induction established by the T.M.T. are drawn into the high inductivity of the earth's interior, despite the conductivity of the surface, which would screen electromagnetic waves. To illustrate this point consider Tesla's description of an experiment. "I have here a short and wide tube which is exhausted to a high degree and covered with a substantial coating of bronze, the coating allowing barely the light to shine through. A metallic clasp, with a hook for suspending the tube, is fastened around the middle portion of the latter, the clasp being in contact with the bronze coating. I now want to light the gas inside by suspending the tube on a wire connected to a coil. Any one who would try the experiment for the first time, not having any previous experience, would probably take care to be quite alone when making the trial, for fear that he might become the joke of his assistants. Still, the bulb lights in spite of the metal coating, and the light can be distinctly perceived through the latter. A long tube covered with aluminium bronze lights when held in one hand—the other touching the terminal of the coil—quite powerfully. It might be objected that the coatings are not sufficiently conducting; still, even if they were highly resistant, they ought to screen the gas. They certainly screen it perfectly in a condition of rest, but not by far perfectly when the charge is surging in the coating. But the loss of energy which occurs within the tube, notwithstanding the screen, is occasioned principally by the presence of the gas. Were we to take a large hollow metallic sphere and fill it with a perfect incompressible fluid dielectric, there would be no loss inside the sphere, and consequently the inside might be considered as perfectly screened, though the potential be very rapidly alternating. Even were the sphere filled with oil, the loss would be incomparably smaller than when the fluid is replaced by a gas, for in the latter case the force produces



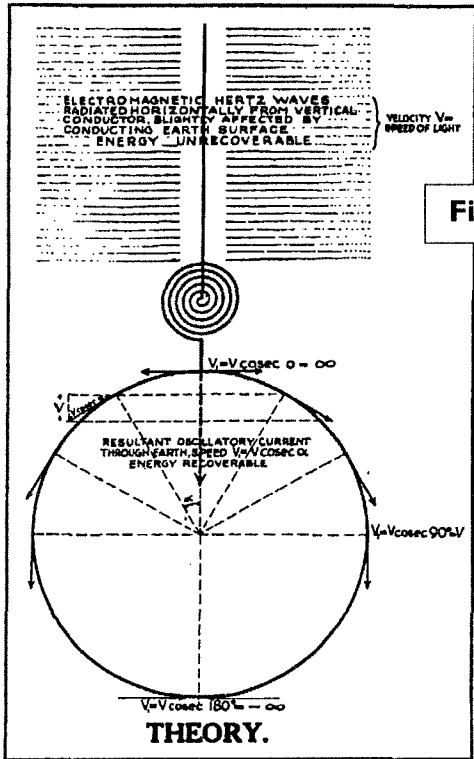
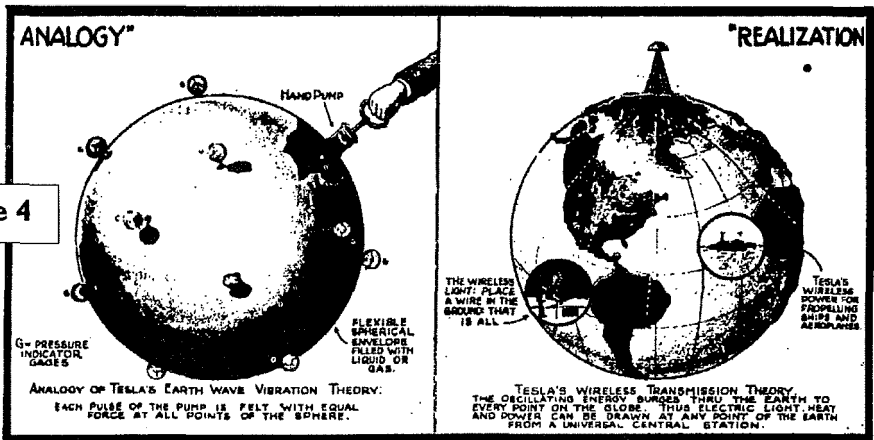


Figure 4



Tesla's World-Wide Wireless Transmission of Electrical Signals, As Well As Light and Power, Is Here Illustrated in Theory, Analogy and Realization. Tesla's Experiments With 100 Foot Discharges At Potentials of Millions of Volts Have Demonstrated That the Hertz Waves Are Infinite in Effect and Unrecoverable; the Recoverable Ground Waves of Tesla Fly "Thru the Earth". Radio Engineers Are Gradually Beginning to See the Light and That the Laws of Propagation Laid Down by Tesla Over a Quarter of a Century Ago Form the Real and True Basis of All Wireless Transmission To-Day.

communicates the energy from the transmitter to the receiver as shown by figure (4). The unused portion of energy is reflected back to the transmitter more or less completely. Operating this energy reciprocation between transmitter and receiver at the natural period and waveshape of the earth's own energy pulsation rate greatly overcomes the effect of distance, hence no significant loss of energy is apparent. Thus a standing wave of induction energy exists between the transmitter and receiver, or what can be called transponders, pulsating at one of the earth's natural harmonics. If the phase angle of the earth pulsation frequency lags the phase angle of the pulsating frequency energy is abstracted from the earth's supply of energy and delivered as "free energy" to the transponders.

It can therefore be seen that while the transmission of transverse waves involves the spraying of energy, with its consequent square law diminishment of energy density, and no hope of retrieving the unused energy, the Tesla system involves the direct connection of transmitter and receiver, via the pulsating lines of electric induction. Therefore, the transmitter and receiver are rendered as one apparatus.

OPERATING PRINCIPLES OF THE TESLA MAGNIFYING TRANSMITTER

Because the energy is propagated through the "ground" the question exists as to how to ground the apparatus, that is, how to establish an electric reference point, since the so called ground is now the hot terminal of the transponders, and therefore is incapable of also serving as an electric reference point. Here exists the singular feature of the Tesla O.C. transformer in that the distributed mutual inductance and odd function resonance work to establish a virtual ground. This fundamental principle of virtual grounding is also to be found in the Tesla Telegeodynamic Oscillator (T.G.O.) which serves as a mechanical analog to the T.M.T. The principle behind this is the geometrical reconfiguration of the fundamental components of en-

displacements; that means impact and collisions on the inside.

The dielectric induction through the interior of the earth

ergy, the kinetic and potential, this reconfiguration resulting in the separation of cause and effect in not only time but also in space. The result hereof is the circumvention of the Newtonian laws of action and reaction. This allows for the production of heretofore unexplored phenomena.

Hence, the T.M.T. as well as the T.G.O. is capable of transmitting vibrations by virtue of the fact that it is SELF-REFERENCING, thereby not requiring any ground, that is, no solid backing from which to push against. This relates to the saying "Give me a fulcrum and I will move the earth". Tesla found this fulcrum and moved the earth; both mechanically, producing a local earthquake in New York City; and electrically, producing a standing lightning discharge at Colorado Springs (and possibly lightning elsewhere on the planet).

The Tesla transponder (T.M.T.) can be divided into FIVE distinct components:

- 1) EARTH,
- 2) REFLECTING CAPACITANCE,
- 3) ENERGY TRANSFORMER,
- 4) COUPLING TRANSFORMER, and
- 5) RESONANT COIL.

The interconnection of these five components is shown by figure (5).

In this arrangement energy is continuously bounced back and forth between the earth and the reflecting capacitance at a rate tuned to a natural rate of the earth. This standing wave of energy pulsation is maintained by the energy transformer which delivers electric energy to this standing wave via the coupling transformer. A certain percentage of this energy in the standing wave is refracted through the

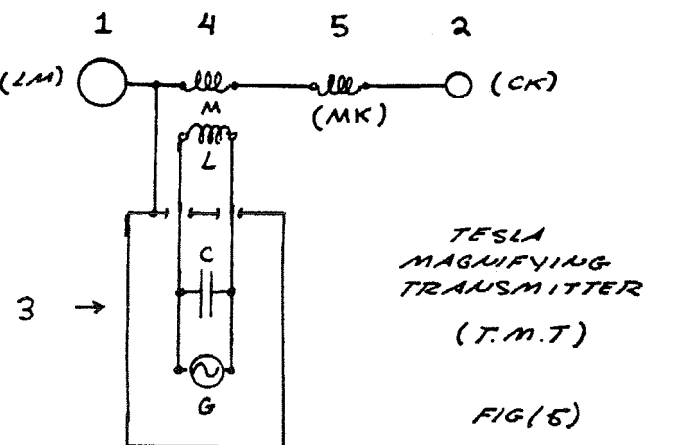
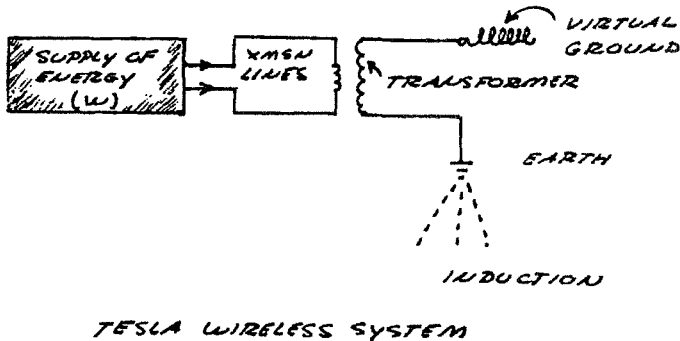
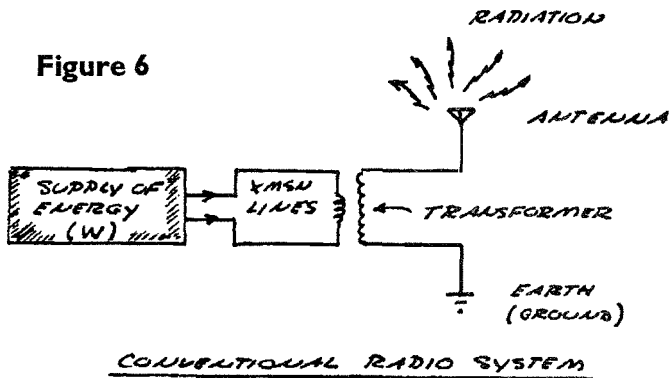


Figure 6



earth-transformer reflection point and into the earth. This refracted energy establishes another standing wave in the earth. Hence, a pair of standing waves are produced which communicate energy through the refraction.

The oscillating resonant coil, tuned to an earth harmonic, establishes a virtual ground at one terminal of the coupling transformer thus rendering the earth terminal active from the standpoint relative to the electric conditions surrounding the apparatus. The coil terminal designated as the reflecting capacitance appears active and the earth terminal appears to be neutral, whereas from the earth's standpoint the earth terminal is active. Thus, the reason for the popular notion that the reflecting capacitance is the output of the apparatus. In light of the virtual ground theory this is obviously not correct. See figure (6).

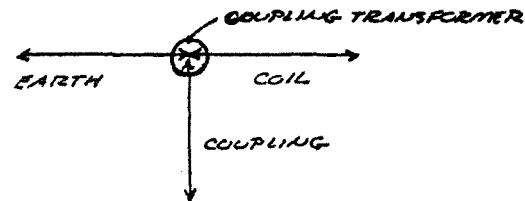
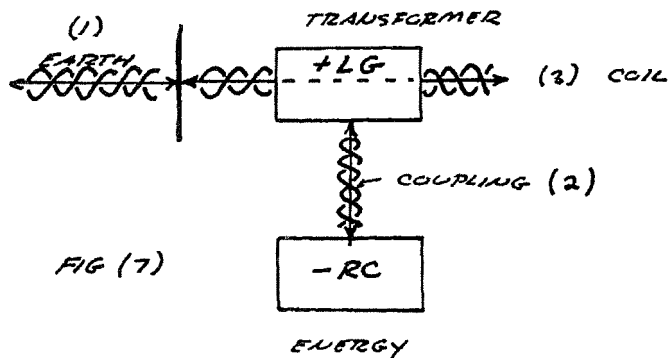
The electric conditions surrounding the T.M.T. no longer can be represented by conventional, or electromagnetic concepts because the system has converted the electromagnetic energy of the dimensions

$$W_{II} = mc^2 = m \frac{p}{t_2}$$

into a dematerialized, or mass free energy. The dimensions of this form of energy were given by Dr. Wilhelm Reich as

$$W_I = \frac{p}{t_2} \quad m \cong l$$

This dematerialized energy is the spatial analog of the reactive, or wattless, energy that is encountered in alternating current systems. Plasma discharges resulting from dielectric saturation (breakdown) of the dielectric medium that surrounds the T.M.T. no longer can be



related to the laws of thermodynamics but are related to the laws of organic GROWTH, such as the spontaneous production of energy and Golden Ratio proportioning. It is of particular interest to note that these phenomena serve as experimental verification of the theory of Cosmic Superimposition as put forth by Dr. Wilhelm Reich.

The pulsation of energy between the energy transformer (which is dielectric in nature) and the coupling transformer (which is magnetic in nature) represents an additional standing wave independent of that of the resonant coil and independent of that of the earth. This new standing wave is called an electric oscillation and represents a standing wave in the dimension of time. The energy of this standing wave is refracted through the coupling transformer thereby exchanging energy with the other standing wave as shown schematically in figure (7).

It can be seen that the T.M.T. involves three distinct standing waves in its operation, each coupled to the other through two points of refraction. Each of these standing waves represents a distinct dimensional aspect:

- 1) EARTH WAVE; SPACE DIMENSIONAL
- 2) INTER TRANSFORMER; TIME DIMENSIONAL
- 3) RESONANT COIL; EXTRA DIMENSIONAL.

The analogous relations in musical representation are:

- 1) HARMONY; SPACE DIMENSIONAL
- 2) RHYTHM; TIME DIMENSIONAL
- 3) MELODY; EXTRA DIMENSIONAL

In order for this triple resonant, or sextic (6) energy transient to operate in consonant resonance, conjugate relation must be made to exist between all six energies. Unfortunately, very little theoretical knowledge exists for transients of more than double energy. This is primarily due to the limited understanding of the science of algebra with regard to the solutions of equations higher than second degree.

Reprinted from **The Theory of Wireless Power** by Eric P. Dollard, Wireless Engineer, from BSRF, Garberville, California. This work is based on actual experimentation and analysis of factual historical data. A complete listing of Tesla related titles will be found elsewhere in this publication.

“WORLD SYSTEM” OF WIRELESS TRANSMISSION OF ENERGY

by Dr. Nikola Tesla

from Telegraph and Telephone Age, October 16, 1927

The transmission of power without wires is not a theory or a mere possibility, as it appears to most people, but a fact demonstrated by me in experiments which have extended for years. Nor did the idea present itself to me all of a sudden, but was the result of a very slow and gradual development and a logical consequence of my investigations which were earnestly undertaken in 1893 when I gave the world the first outline of my system of broadcasting wireless energy for all purposes. In several demonstrative lectures before scientific societies during the preceding three years, I showed that it was not necessary to use two wires in transmitting electrical energy, but that one only might be employed equally well. My experiments with currents of high frequencies were the first ever performed in public and elicited the keenest interest on account of the possibilities they opened up and striking character of the phenomena. Few of the experts familiar with the up-to-date appliances will appreciate the difficulty of my task with the elementary devices I had then at command, as accurate adjustments for resonance had to be made in every experiment.

The transmission of energy through a single conductor without return having been found practicable it occurred to me that possibly even that one wire might be dispensed with and the earth used to convey the energy from the transmitter to the receiver.

HIGH FREQUENCY DYNAMO AND “TESLA COIL”

Manifestly, currents such as were ordinarily employed in the arts and industries were unsuitable and I had to devise special generators and transformers for furnishing impulses of the requisite quality.

First I perfected high frequency dynamos which were of two types, one with a direct current field excitation and the other in which the magnet was energized by alternating currents of different phase, producing a rotating magnetic field. Both of these have found employment in connection with my broadcasting wireless system. In the first machine I exhibited an efficiency of ninety per cent was attained, but it was necessary to run it in hydrogen or rarefied air to minimize the otherwise prohibitive windage loss and deafening noise.

In order to overcome the inherent limitations of such machines I next concentrated my efforts on the perfection of a peculiar transformer consisting of several tuned circuits in inductive relations which received the primary energy from oscillatory discharges of condensers. This apparatus, originally identified with my name and considered by the leading scientific men my best achievement, is now used in every wireless transmitter and receiver throughout the world. It has enabled me to obtain currents of any desired frequency, electromotive force and volume, and to produce a great variety of electrical, chemical, thermal, light and other effects. Roentgen, cathodic and other rays of transcending intensities. I have employed it in my investigations of the constitution of matter and radioactivity, published from 1896 to 1898 in the Electrical Review in which it was demonstrated, prior to the discovery of Radium by Mme. Sklodowska and Pierre Curie, that radioactivity is a common property of matter and that such bodies emit small particles of various

sizes and great velocities, a view which was received with incredulity, but finally recognized as true. It has been put to innumerable uses and proved in the hands of others a veritable lamp of Aladdin.

As I think of my earliest coils, which were nothing more than scientific toys, the subsequent development appears to me like a dream.

THE “MAGNIFYING TRANSMITTER” AND EARTH RESONANCE

While I was perfectly convinced, from the outset, that success would be ultimately achieved, it was not until by slow improvement I evolved the so-called “Magnifying Transmitter” that I obtained convincing evidence of the feasibility of wireless power transmission on a vast scale for all industrial purposes.

The chief discovery, which satisfied me thoroughly as to the practicability of my plan, was made in 1899 at Colorado Springs, where I carried on tests with a generator of fifteen hundred kilowatt capacity and ascertained that under certain conditions the current was capable of passing across the entire globe and returning from the antipodes to its origin with undiminished strength. It was a result so unbelievable that the revelation at first almost stunned me. I saw in a flash that by properly organized apparatus at sending and receiving stations, power virtually in unlimited amounts could be conveyed through the earth at any distance, limited only by the physical dimensions of the globe, with an efficiency as high as ninety-nine and one-half per cent.

The mode of propagation of the currents from my transmitter through the terrestrial globe is most extraordinary considering the spread of the electrification of the surface. The wave starts with a theoretically infinite speed, slowing down first very quickly and afterward at a lesser rate until the distance is about six thousand miles, when it proceeds with the speed of light. From there on it again increases in speed, slowly at first, and then more rapidly, reaching the antipode with approximately infinite velocity. The law of motion can be expressed by stating that the waves on the terrestrial surface sweep in equal intervals of time over equal areas, but it must be understood that the current penetrated deep into the earth and the effects produced on the receivers are the same as if the whole flow was confined to the earth's axis joining the transmitter with the antipode. The mean surface speed is thus about 471,200 kilometers per second—fifty-seven per cent. greater than that of the so-called Hertz waves—which should propagate with the velocity of light if they exist. The same constant was found by the noted American astronomer, Capt. J.T.T. See, in his mathematical investigations, for the smallest particles of the ether which he fittingly designates as “etherons.” But while in the light of his theory this speed is a physical reality, the spread of the currents at the terrestrial surface is much like the passage of the moon's shadow over the globe.

It will be difficult for most people engaged in practical pursuits to measure or even to form an adequate conception of the intensity of inspiration and force I derive from that part of my work which has passed into history. I have every reason to consider myself one of the most fortunate men, for I experience incessantly a feeling of inexpress-

ible satisfaction that my alternating system is universally employed in the transmission and distribution of heat, light and power and that also my wireless system, in all its essential features, is used throughout the world for conveying intelligence. But my pioneer efforts in the later field are still grossly misunderstood.

SHORT WAVE BROADCASTING AND "BEAM" TRANSMISSION

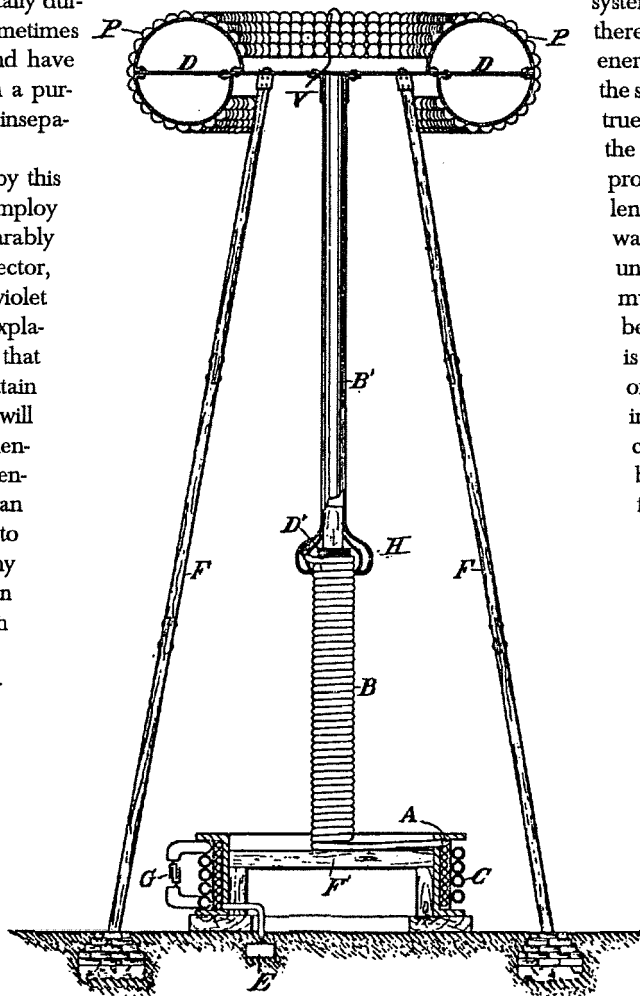
Nothing illustrated this better than the recent demonstrations of a number of experts with very short waves, which have created the impression that power will be eventually transmitted by such means. In reality, experiments of this kind are the very denial of the possibility of economic transmission of energy. I have investigated this special subject experimentally during a great number of years, using sometimes waves as short as one millimeter, and have found even these unsuitable for such a purpose, not to say that their production is inseparable from great waste.

In order to secure good results by this method it would be necessary to employ radiations of a wave length incomparably smaller than the dimensions of the reflector, as radiant heat, light, infrared or ultraviolet rays. Notwithstanding my repeated explanations experts do not seem to realize that no concentration of energy such as I attain in my wireless power system can or will ever be achieved through the instrumentality of reflectors, for in transmitting energy in this manner the receiver can collect only an amount proportionate to the area exposed to the rays, while in my system it draws the energy from an immense reservoir in ever so much greater quantity.

Similar considerations apply to directional transmission by sort reflected waves or "beams." If we could produce economically electric vibrations of a frequency approximating that of radiant heat waves, efficient reflectors without appreciable dispersion, and prevent absorption—then such a mode of transmitting energy might become of great importance. But attempts to accomplish this purpose with relatively very low frequencies are sure to prove futile. More than twenty-five years ago my efforts to transmit large amounts of power through the atmosphere resulted in the development of an invention of great promise, which has since been called the "Death Ray," and attributed to Dr. Grindell Mathews, an ingenious and skillful English electrician. The underlying idea was to render the air conducting by suitable ionizing radiations and to convey high tension currents along the path of the rays. Experiments, conducted on a large scale, showed that with pressures of many millions of volts virtually unlimited quantities of energy can be projected to a small distance as a few hundred feet, which might be satisfactory if the process were more economical and the apparatus less expensive. Since that time I have made important improvements and discovered a new principle which can be successfully applied without difficulty for various purposes in peace and war.

If I have understood the reports correctly, in the "beam transmission" with waves of a few meters length, an oscillating circuit, consisting of a straight vertical conductor, is placed in the focal line of a parabolic surface on which are placed many secondary straight wires parallel to the primary conductor. Now this disposition is entirely faulty and to all evidence inefficient, as the secondary system does not operate in the manner of a parabolic reflector but merely produces a confused echo. The correct arrangement would require primary and secondary conductors situated in two vertical parallel planes separated by a distance equal to one quarter of the wave length. But even in this best form such a transmitter can only be of doubtful practical value. The two wave

trains behind the reflecting, or rather echoing, system do not completely neutralize and there is considerable lateral dissipation. The energy of the primary system diminishes with the square of the distance, and this being also true of the secondary, the useful waves from the latter will suffer diminution of energy in proportion to the fourth power of their length. This means that only a very short wave can be used which, moreover, is unchangeable and difficult to regulate. One must be shortsighted not to perceive that better results will be obtained if the capital is all invested in a single directional system of proper design for the power available increases much more rapidly than the cost of the plant. Assuming even that the beam arrangement works with ideal perfection, it must still be inferior, since the requisite radiant energy is producible at smaller expense with the single system, which has the further advantages that it can be adapted to any wavelength, is greatly effective in two directions and therefore of greater earning capacity. So palpably unsound is this scheme that I am at a loss to understand how it could pass the scrutiny of competent experts such as Dr. W.L. Austin and John Stone.



THE "WORLD" SYSTEM

Since I began the construction of the first power plant in 1899 I have expressed myself repeatedly in regard to it and the plans I had previously formed through the medium of the *Electrical Review*, *Electrical World*, *Electrical Experimenter*, *Science and Invention* and other periodicals, notable the *Century Magazine* of June, 1900, to which I contributed a lengthy article on the "Problem of Increasing Human Energy"; but certain facts must still be told. In the first place the fundamental difference between the broadcasting system as now practiced and the one I expect to inaugurate is that at present the transmitter emits energy in all directions, which in the system I have devised only force is conveyed to all points of the earth, the energy itself travelling in definite paths determined beforehand. Perhaps the most wonderful feature is that the energy travels chiefly along an orthodromic line, that is, the shortest distance between two points at the surface of the globe, and reaches the receiver without the slightest dispersion, so that an incomparably greater amount is collected than is possible by

radiations. I have thus provided a perfect means for transmitting power in any desired direction far more economically and without any such qualitative and quantitative limitations as the use of reflectors would necessarily involve.

Another distinction is that my system is based entirely on resonance, while in present practice reliance is placed chiefly on amplification by auxiliary devices generally consisting of various forms of vacuum tubes which have been brought to remarkable perfection. The foundation to their use was laid by Sir William Crookes, who discovered in 1876 that a highly heated conductor emits electrified particles. In 1882 a young French electrician, Vissiere by name, observed that a current issues from the filament of an incandescent lamp and made careful measurements with specially prepared bulbs, some of which I had opportunity to witness in Ivry-sur-Seine, a suburb of Paris, at that time. But these phenomena found no application in the art until in 1892 I produced a vacuum tube detector superior in sensitiveness to any other form of which I have knowledge. Amazing progress has been since then achieved, but the employment of the modern vacuum detectors and amplifiers is a impediment to advance in the right direction and most of the troubles experienced in broadcasting are due to this cause. Until quite recently the transmitted waves were lacking in uniformity of length, rendering accurate attunement impossible. This defect has been in a measure remedied by control through quartz crystals, and now, for the first time, it is practicable to carry out important refinements for bettering the service.

The electro-mechanical process of producing isochronous oscillations is one of my earliest inventions and I have applied it in many ways with great success. Its application to the operation of existing plants secures important advantages, but in spite of this and other improvements a change in the present apparatus and method of broadcasting is becoming daily more imperative and for this reason I am anxious to resume the introduction of my "World System" with novel transmitters of great effectiveness and receivers of elementary simplicity. In my apparatus the isochronism is so perfect and attunement sharp to such a degree that in the transmission of speech, pictures or similar operations, the frequency or wavelength is varied only through a minute range which need not be more than one hundredth of one per cent. if desired. Statics and all other interferences are completely eliminated and the service is unaffected by weather, seasonal or diurnal changes of any kind. The system lends itself particularly to World Wireless Telephony and Telegraphy as the current from the transmitter can be kept virtually constant and the control effected by a simple microphone without the elaborate means now employed. Any reasonable number of simultaneous and non-interfering messages is practicable and a speed of many thousands of words per minute can be attained in telegraphic transmission. The same principles are also applicable to operation through wires and cables. In 1903 I proposed to the Western Union and Postal Telegraph companies such multiplex transmission for their lines but received no encouragement mainly because the volume of business did not call for a great increase of working capacity. At a later date my improvements were introduced as "Wired Wireless," a quite inappropriate name inasmuch as the waves radiated from the wire are completely lost and of no effect on the receiver.

My plans for a power plant have been developed to the point of

application, but I am still unable to say when I shall begin active work. There are no such difficulties in the way as confronted me from the outset, for at that time I was alone; now many are convinced that my undertaking is rational and practical. Needless to say that I am using every effort to give to the world my best and most important work as soon as possible and free of all blemish and flaw. I have in view a number of places which seem well suited for the purpose, but my warmest wish is to transmit power from Niagara Falls, where the first triumph with my alternating system was achieved.

One of the most important uses of wireless energy will be undoubtedly for the propulsion of flying machines to which power can be readily supplied without ground connection, for although the flow of the currents is confined to the earth and electromagnetic field is created in the atmosphere surrounding it. If conductors or circuits accurately attuned and properly positioned are carried by the plane, energy is drawn into these circuits much the same as a fluid will pass through a hole created in the container. With an industrial plant of great capacity sufficient power can be derived in this manner to propel any kind of aerial machine. This I always considered as the best and permanent solution of the problems of flight. No fuel of any kind will be required as the propulsion will be accomplished by light electric motors operated at great speed. Nevertheless, anticipating slow progress,

I am developing a novel type of flying machine which seems to be well suited for meeting the present necessity of a safe, small and compact "aerial flivver" capable of rising and descending vertically.

Television, as conceived by me in 1893, will be another valuable and timely application. At that time I advanced the idea that the formation of a clear mental image of external objects is accompanied by a reflex action on the retina, making it possible to read thought and even to

project the images conceived on a screen and render them visible to an audience. This would be of inestimable consequence on all human relations, but the idea can not be realized until some way is found to lay bare the retina. Continued reflections on this subject led me to evolve apparatus for transmitting instantaneously true vision without any moving devices, and in 1900 I had already solved three of the problems which confronted me, namely: To individualize and isolate a very great number of channels or "nerves"; to convey to the receiving apparatus energy in sufficient amount, and to make the vision of the moving images independent of distance. Eventually also I hope to overcome the shortcomings of the selenium cell by a different device.

I am most interested, however, in the perfection of broadcasting which is now carried on with unfit apparatus and on a commercially defective plan. The transmitters have to be greatly improved and the receivers simplified and in the distribution of wireless energy for all purposes and the precedent established by the telegraph, telephone and power companies must be followed, for while the means are different the service is of the same character. Technical invention is akin to architecture and the experts must in time come to the same conclusions I have reached long ago. Sooner or later my power system will have to be adopted in its entirety and so far as I am concerned it is as good as done. If I were ever assailed by doubt of ultimate success I would dismiss it by remembering the words of that great philosopher, Lord Kelvin, who after witnessing some of my experiments said to me with tears in his eyes: "I am sure you will do it."

The wave starts with a theoretically infinite speed, slowing down first very quickly and afterward at a lesser rate until the distance is about six thousand miles, when it proceeds with the speed of light. From there on it again increases in speed, slowly at first, and then more rapidly, reaching the antipode with approximately infinite velocity.

CURRENT MICROWAVE OVEN SAFETY QUESTIONS

by Michael Riversong

KNOWN MATERIAL HAZARDS IN MICROWAVES

Knowledge of danger from excessive exposure to microwave radiation has been around for a long time. In some cases, military and telephone workers have literally had their internal organs "cooked" during short periods of intense exposure. However, modern microwave ovens have been carefully designed to minimize exposure to known dangerous levels. Only two known hazards remain at this time.

MICROWAVE "SPLATTER"

It is possible for seals to deteriorate on older ovens. While this does not occur too often, it's worth checking if an older unit has managed to somehow continue functioning. Usually, controls deteriorate long before seals. When seals around the doors are broken, the microwaves that escape can be strong enough to do real damage to human tissue, especially internal organs. Many more recently manufactured units have seals made of materials that do not deteriorate.

ELECTROMAGNETIC FIELDS

Almost all microwave ovens produce heavy electromagnetic fields when running, emanating from the control panel. In household surveys, AC field levels anywhere from 10 to 95 milligauss have been observed. (Most researchers have agreed that anything over 2.5 milligauss is potentially harmful.) These levels usually drop off rapidly. To be safe, stay at least five feet away while an oven is operating.

POSSIBLE ENERGY PROBLEMS WITH MICROWAVES

We are entering an area of great controversy here. In Europe, microwave ovens are not as commonly found as in America. To a great extent, this is because Europeans have simply not gotten around to buying them yet. This is because consumption cycles tend to be longer in Europe than in America. However, some Europeans sub-

scribe to three lines of scientific thought which have developed there, each indicating that microwaves are not necessarily a good idea. These lines of thinking are apparently becoming gradually more accepted there.

RADIESTHESIA

People involved in this discipline, with a long history related to dowsing, generally agree that microwaves create disturbances in subtle energies. This opinion has been developed through large numbers of tests on food that's been microwaved. Tests usually consist of using a sensing apparatus held by an operator. Results are subjective, and are usually interpreted by the operator. The sensing apparatus can be a small tree branch, a length of copper wire, Dr. Oberbach's Biotensor unit, or any number of similar devices. Experts in this field have said microwaved food has for some reason lost its nutritional potential, and, in tests, consistently shows up as being harmful to the body. They tend to focus on observations, without speculating as to the mechanisms involved in this nutritional loss. American practitioners of kinesiology, which is indirectly related to radiesthesia, often report similar results in tests.

MICROVITA

In this branch of science, first developed by the Indian guru P.R. Sarkar, all matter is said to be composed of particles called "microvita", which are halfway between consciousness and matter. Microvita can thus be called the building blocks of atoms. Without getting into the complexities of this theory, it can be said that, in regard to microwaved material, high-frequency radio waves cause microvita to be damaged, even though the exterior structures of atoms and molecules remain relatively intact. When the human body takes in this food, it literally does not know how to handle it, and so may inappropriately sort out the nutrients. This can lead to problems

with overweight and underweight conditions, along with other health problems, according to Microvita experts. In Europe, this theory is mainly being promulgated through Yoga classes conducted by the Ananda Marga organization. Experimental work using this theory is presently unknown.

RADIONICS

Much of this science is concerned with determining and harmonically imprinting forms of "information", defined by many of its proponents as subtle energies related to ancient concepts of the ether. Water is the ultimate carrier of information, according to radionics researchers, because it is a unique crystalline liquid. Magnetic or resonant fields can easily imprint water. Since most food contains large amounts of water, it is possible to imprint information onto food just as easily as on water. Microwaves cause a random imprinting of information, which essentially causes food to become a form of "nonsense" as seen by the subtle energies of the human body. While it is possible to gain some nutrition from the food, random information may also be taken in with microwaved food, which could then cause harm to the body. In this line of thinking, it is the randomness of information imparted to food which is dangerous.

CONCLUSION

At this point, none of the three disciplines pointing to hidden dangers of microwave ovens is widely accepted either in Europe or America. Further research in these fields will give us a clearer idea of the extent of hidden dangers, thus allowing people to make more informed choices in their use of cooking technologies. For now, antipathy to microwave ovens thus remains primarily a social phenomenon. Most lay people are unaware of the specific scientific reasoning behind seeing possible hidden dangers from these devices, but ultimately some conclusions may become supported by more widely accepted evidence.

FOUNDATION FOR A NEW THEORY OF COLOR

by Guenther Wachsmuth

being chapter VII of

The Etheric Formative Forces in Cosmos, Earth & Man, 1932

IT would not be possible to speak here on the basis of reality concerning the true nature of phenomena of color had not Goethe in his theory of color given the foundation for a conception of "light," "darkness," and "color" which can be set over against the terrible caricature that has been systematically developed from the mechanizing hypothesis of Newton in the course of the present materialistic age. In his remarkable work on "Goethe's Conception of the World," which will in future serve as the point of departure for many researches in the world of organisms, Dr. Steiner said in regard to the mechanistic theory of light and color: "Newton was the founder of this view which Goethe found prevailing among natural scientists and which indeed still occupies the same position today. According to this view white light, as it proceeds from the sun, is composed of colors. The colors arise because the constituent parts are separated out from the white light" (p. 141).^{*} Steiner then describes how Goethe, by means of unprejudiced observation of actuality, discovered the errors in this view and proved these by experiment. "After these experiments, Goethe cannot adopt the Newtonian conception. His attitude to it was the same as his attitude to Xaller's preformation theory. Just as according to this theory the developed organism with all its parts is contained in the germ, so the Newtonians believe that the colors which appear under certain conditions in the light, are already contained in it. Goethe could use the same words against this belief which he used against the preformation theory: that 'it is based on a mere invention, devoid of all element of sense experience, on an assumption which can never be demonstrated in the sense world.' To Goethe colors are new formations which are developed in the light, not entities that have merely developed out of the light."[†]

In reality the Newtonian theory of the enfolding and unfolding of the colors into and out of the white light is as fundamental an error as the senseless theory of Haller that the organism later developed is already contained within the seed. Science has rejected the latter theory as nonsensical, but has not arrived at the same deduction in the case of light. Goethe, to whose lot it fell to expose the abstract construction of Newton's hypothesis, and instead of this to base his own theory of color upon the concrete processes of visible reality in the phenomena of color, proceeded from the elementary manifestation which, on the one side, reaches the eye when it "looks at a 'dark' through a 'bright' and perceives blue"—as for instance it makes the dark cosmic space into the blue

of the sky when seen through the illuminated terrestrial atmosphere.

Goethe confirmed, furthermore, this mode of genesis for blue by placing before one another darker and whiter strips of paper, and by other experiments. On the other hand, he was able to prove that, in the reverse way, "a 'bright' seen through a 'dark' gives yellow." The shining yellow sun seen through the darker layers of atmosphere confirms this; but this also Goethe proved by alternately interposing darker and lighter strips of paper and by other experiments. He also pointed out that blue and yellow occur as marginal phenomena wherever in Nature a 'dark' and a 'bright' meet together, a reality which any man can confirm by his own observation.

In order to reach a true understanding of the reality in the genesis of color Goethe proceeded in forming his concept of the entity "darkness" not from any convenient customary mode of thinking and abstract hypotheses but from actual matters of fact accessible to experience. Steiner says of this: "Light presents itself to observation as 'the simplest, the most homogeneous, undivided entity that we know.' Opposed to it, there is darkness. For Goethe darkness is not the complete, passive absence of light. It is something active. It opposes itself to light and interplays with it. Modern natural science regards darkness as a complete nullity. The light which streams into a dark space has, according to this modern view, no opposition from the darkness to overcome. Goethe imagines that light and darkness are related to each other like the north and south poles of a magnet. Darkness can weaken the light in its power of action. Vice versa, light can limit the energy of darkness. Color arises in both cases! A physical view which conceives darkness as perfect passivity cannot speak of such an interworking. It has therefore to derive colors out of light alone. Darkness appears as a phenomenon of observation in the same sense as light. Darkness is a content of perception in the same sense as light. The one is merely the antithesis of the other. The eye which looks out into the night mediates the real perception of darkness. If darkness were the absolute void, there would be no perception on looking out into the dark."^{**}

Goethe now advanced further in his observations and his inferences in that he tested the reciprocal relation between "light," "darkness," and the "world of substance"; and we shall see how adequately he dealt with the matter. Dr. Steiner says: "empty space has the characteristic of transparency. It produces no effect upon light and darkness. These shine through it in their full

^{*} Subsequent references to "Goethe's Conception of the World" (London, 1928) will be indicated as G.C.W.

[†] G.C.W., p. 146

^{**} G.C.W., p. 160.

activity. It is different when the space is filled with things. This fullness can be such that the eye does not perceive it, because light and darkness in their primal form shine through it. One then speaks of transparent things. If light and darkness do not shine unweakened through a thing, then it is said to be dull. Space filled with what is dull offers the possibility of observing light and darkness, bright and dark, in the opposite relationships. A bright thing seen through a dark appears yellow; a dark appears blue. The dull is a something which is brightened through by light. Against a brighter, more vivid light placed behind it, the dull appears dark; against a darkness shining through, it appears bright. Thus, when a dull thing stands against the light or the darkness, a present bright and a likewise present dark work into one another. If the dullness of the thing through which the light shines is gradually increased, the yellow becomes yellowish red and then ruby-red. If the dullness is diminished through which the darkness penetrates then the blue becomes indigo and finally violet. Yellow and blue are basic colors. They arise from the reciprocal action of brightness or darkness respectively with that which is dull.”*

Let us now bring to an understanding of this what we have hitherto learned of the cosmic forces streaming into the earth organism. Before these applications are made, however, let us note an extremely important cosmic phenomenon which until now could not have been rightly explained but which in this connection admits of a consistent interpretation. In his interesting book already so often cited, “Erdmagnetismus, Erdstrom und Polarlicht,” Professor A. Nippoldt says (p. 95): “The influence of the solar eclipse has been investigated in many ways. It is always discovered that, when diurnal variation has been eliminated, there has been the same behavior of the elements, so that the darkening of the sun seems always to have produced the same effects. As a matter of fact, in the case of an eclipse, always with the dark shadow of the moon a whirling current passes over the earth having the same characteristics as the ordinary *night* currents. . . .” In this important phenomenon we learn to know one of the most important cosmic events, which demonstrates to us better than many others two fundamental truths:

1. Darkness is something active as it comes to expression, among other ways, in the whirling current which accompanies the shadow of the moon over the earth and which is like the normal nocturnal current.

2. This force of darkness, which works usually only during the night, but which becomes active also in like manner in the day during a solar eclipse, is in this case connected with the moon. When the moon hides the sun, as happens regularly in the case of the eclipse, the moon then exercises upon the earth the same specific action which is regularly exercised at night. (In regard to the influence of the moon upon the structure of the earth, etc., see Chap. III of the book—info at end of article.)

We are dealing, therefore, not with a mere “absence of the sun’s influence,” a negative, but with an active, effective exercise of force during the phenomena of darkness, and this active force is in this case connected with the orbit of the moon. Goethe was also entirely right when he compared the action of darkness and

the opposite action of light to the two poles of a magnet. Just as the human eye is impressed by real darkness, only in a polarically opposite manner from the effect of light, thus also the earth organism, as we have already thoroughly established in connection with other phenomena, is influenced by the action of two cosmic forces polarically unlike. Already in discussing the horizontal and vertical currents, in their reciprocal relationships with the phenomena of life and states of consciousness in the realm of Nature, we have seen the moon and the sun in their polaric contrast. There are thus two forces which stream to us out of the cosmos and act conjointly in unlike ways in the constitution of the structure of the earth organism and in its phenomena of life and processes of death: the life ether of the sun and the chemical ether of the moon.

Through the action of the etheric formative forces in the earth organism, arise the different variations in the world of color, in the following fashion:—

When there is predominantly active in the illuminated world of substance of the earth organism:

- Warmth ether, then appears the color red;
- Light ether, then appears the color yellow;
- Chemical ether, then appears the color blue;
- Life ether, then appears the color violet.

Therefore the sea, for example, whose watery element is dominated chiefly by chemical ether (Chap. II), appears to us blue, whereas a shining flame, which is controlled chiefly by warmth ether, appears red.

When yellow, in which the light pole of the spectrum preponderates, comes together with the blue, in which the dark pole preponderates, then appears the colour green.

The indefinite number of variations of the world of colour arise from the fact that either the light forces are gradually being suppressed by the dark forces, or the dark by the light. (See diagram, next page.)

When the forces of darkness weaken the light forces manifested in yellow, then appears orange, etc.

Every color is the result of a conflict between the real etheric forces of light and darkness.

The reciprocal influence upon the plant world of these forces which come to expression in the colours will in future become one of the chief spheres of research in organisms. (For details, see Chap. XI.) Here we must only point out that plant cells, for instance, when subjected to the action of the rays of the yellow-red pole (light ether and warmth ether, expansive, see Chap. II) continue to extend and do not divide as much as usual, whereas plant cells which are exposed to the blue pole (chemical ether, concentrating, splitting) do not extend as much as usual but continually divide in a disuniting process.

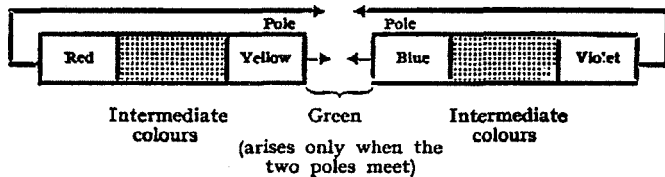
From the qualities of the etheric formative forces as described, we discover quite systematically why living plants will answer to the presence of a certain colour by an expansive or growing process (warmth ether and light ether), while the presence of a polarically opposed colour will be accompanied by a disuniting or cell-separating process (chemical ether and life ether). The colours and the evolutionary process are both the work of certain etheric formative forces with clearly definable qualities and tendencies in their effects. Herein lie the basic truths for a future research into

* G.W.C., p. 164.

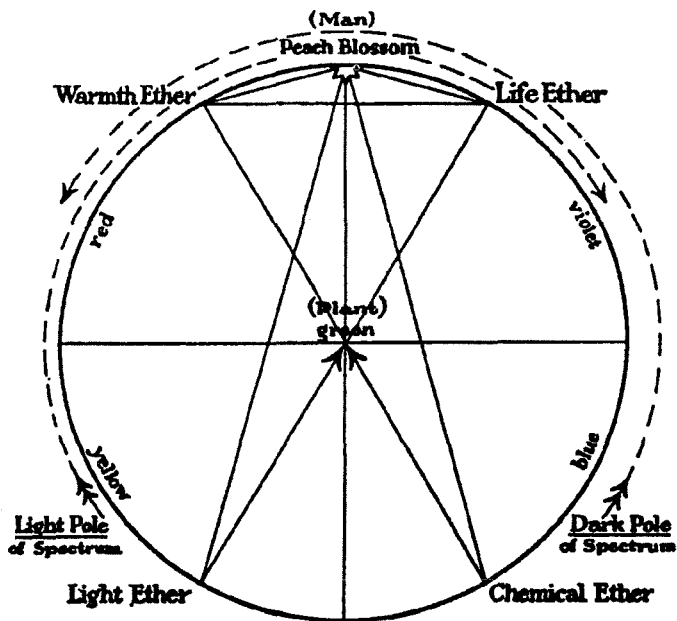
genesis and disappearance, procreation and individualization, in the world of organisms.

We must recall that with the closing of the circle of the spectrum a new colour arises: "peach blossom," the colour of man incarnate, the living human body. In reality the so-called "peach blossom" colour is the colour of the living man, as a result of the harmonious working together of all the etheric formative forces, the summing up of the spectrum of Nature.

The spectrum of the world of colour in a band appears thus:



The closed circle of the spectrum of the world of colour gives us this picture, full of infinite wisdom and harmony:



The circle encloses: in its left half the expansive, space-creating, space-affirming forces; in its right half the suctional, concentrating, disuniting, space-diminishing, space denying forces.

The circle encloses: standing opposite to each other, those forces which in the world of substance require the oxygen adjusted to the number three, which produce "pure light,"

Life ether and light ether,

as well as the force which in the world of substance requires the oxygen adjusted to the number two, which produces "heat light,"

Heat and cold,

Warmth ether and chemical ether.

The circle encloses: in its lower half the forces of the polarity of light and darkness;

in its upper half the forces of heat and life.

The circle encloses: in its right half the cosmic forces of sun and

moon; in its left half the two further forces which are active in the earth organism;

at the top, the union of all forces and colors, their harmony, the color of living man.

The circle encloses: all colors and forces in the spectrum of light and of Nature.

The circle of the spectrum of Nature and of light encloses two worlds. The world of spiritual Being streams into the world of substance, bringing to pass involution, evolution, "creating out of nothing," in an eternal harmonious circuit. Thus stream in also the cosmic formative forces into the living world of being of the earth organism, into the world of the "dull," the illuminated substance—bringing forth, through the manifold reciprocal action of the etheric formative forces, the variations of the world of colors in the world of extension, of space and of time.

Cosmic light and terrestrial light illumine the world of substance according to inner laws and harmonies, which with the colors and the forces of the closed circle of the spectrum of Nature and of light build the upward directed pentagram in the circle at the top of which stands that color which distinguishes man alone in the world of phenomena.

The Newtonian preformation theory of light and color is the image of a mechanistic, unreal, dead Nature void of the spiritual.

The reciprocal play between the "action of light" and that of "darkness" and the "illuminated world of substance" which, through the struggle of the formative forces in the world of substance, gives color to the forms of this world, reaching the apex of their combined harmonized activity in living man, is the image of an organic real, living Nature, guided by Spirit.

The quantitative-mechanistic research into the world has brought us to a conception of the cosmic system as a corpse in which, nevertheless, we are alive. This is the conception of something unreal. If we pass on to form a conception of the living cosmic system in which we also live, we shall begin to fashion for ourselves an image of the reality.

THE ETHERIC FORMATIVE FORCES IN COSMOS, EARTH AND MAN by Dr. Guenther Wachsmuth, 1932.

A Path of Investigation into the World of the Living. Essential reading for the Borderland Scientist. A brilliant exposition of the Four Ethers and their functions in forming the life processes on our plane of existence. Includes: New Theory of Motion; Organic and Inorganic World; Etheric Formative Forces; Earth Organism; Breathing Process of the Earth Organism; Circulatory Process of the Earth Organism; Rotation of the Earth; Etheric Currents in the Earth Organism; Gravitation and Terrestrial Magnetism; The Sun; The Planets and their Spheres; The Interior of the Earth; Metamorphosis of the Etheric Formative Forces in the Planetary System; Etheric Organism of Earth and Man; Ontogenetic Origin and Disappearance of Substance; Relations between the Worlds of Spiritual Being, of the Etheric, Of Substance, and of Force; Space and Time — Genesis and Disappearance; New Theory of Light & Color; Tone; The Dissolution of Substance, and Radioactivity; Shape-Building Forces and Archetypal Forms in Nature; Threefold Human Organism; Etheric Formative Forces & the Art of Healing. #B0118, 250pp, staples ... \$20.95 + P&H.

NEW AGE TOTEMS AS AN ATAVISTIC ACT

by CHINCHILLA



Photo by Diedre Lamb. Tattoos by Mr. G.

NEW AGE TOTEMS are anything one considers a symbol of personal power. This includes anything from lucky dice, medicine wheels, crystals, feathers, hearts, and skulls to calligraphy. On my own back I wear a tattooed totem, which I call The Kharmic Embrace. A woman, representing me, embraces a skeleton. This is significant of coming to terms with my mortality.

Totems are carved, sculpted, painted and woven. Ours are pushed under the third layer of our skins (like our ancestors). Ancestral memories are breathing through our New Age Totems via the ancient Mother Art of Tattooing. We connect ourselves to the ancient world, with these images breathing within our skins. Like a macabre reference library, we are Keepers of the Images. We carry an archive of images and symbols. They have been present worldwide for centuries representing life, death and all that throbs with a vibrant force between. These venerated symbols are animal, plant or natural objects and serve as an emblem of a clan or family by virtue of an asserted ancestral relationship.

Mr. G. wears his totems hand-poked on his back performed in a religious and ritualistic ceremony by a Buddhist Monk and a Burmese Shaman in the highlands of Northern Thailand. The pigments used were hand-ground red stone, black sumi ink and sacred invisible oils, containing herbs, flower petals and amulets. These pigments unlike ours are used communally. They are inserted by a sharpened stick of bamboo, brass, or needles made of bone or animal teeth. These tattoos are protective markings, called yantras, of which he wears in the best of health.

I tattooed a red rose on Andre O'Conner's chest where her breast used to be. She had a mastectomy. This is her statement: "I chose a rose, replacing my single breast, because the rose is sacred to the goddesses. Temple Priestesses always carried a red rose. They are a symbol of Love, passion, life, vitality, and spirituality." She considers this to be her totem.

One of our customers wears a tattoo of a large totemic scene on her back. It consists of the dreamer, Mother Earth, a cougar, an owl, deer antlers and basket weaving. She feels, to possess a picture of an animal under her skin is to have it's spirit with her.

A modern ritual to manhood occurred as a young man had a totem of an Indian Dancer embracing an eagle tattooed on his muscular arm. Another wears his shovel head Harley Davidson engine wrapped in red and orange flames, surrounded by Japanese style clouds and with a red dragon on his entire back. The Queen of

Hearts is Gregg Allman's totem. A band called Shakin' Snakes all wear tattoos of snakes on their fine hides. A woman named Rose Dancer has roses and dancers tattooed in bright airy colors all over her body.

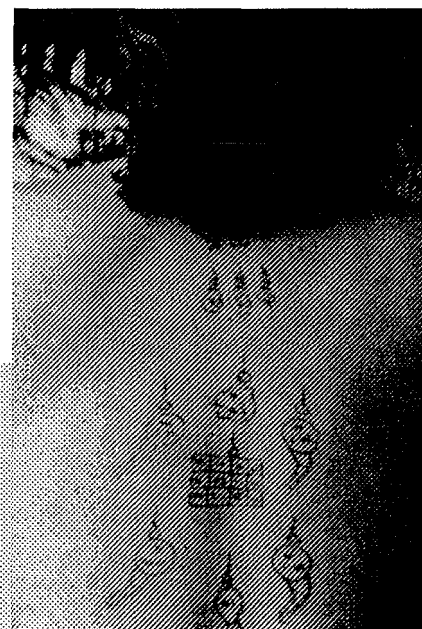
A couple celebrating their first year of sobriety marked their passage with a tattoo of a beast peering out of their belly with a yin-yang eye. They call it the beast within, always remembering their totem.

The Japanese Yakuza wear full body tattoos symbolizing their mythical totems. These consist of dragons, fire, water, wind, lightning, peonies and Deities.

Tattoos are in a sense Icons. They are a taproot running deeply through cultures for centuries. A lifeline, a point of reference as well as a form of identification and status while adoring the body.

We are Art With A Pulse. Our Totems Pulsing With Life Force.

Chinchilla is a columnist for several national magazines as well as for the Mendocino Outlook. She is also a Tattoo Artist and Tattoo Museum curator at Triangle Tattoo and Museum, 356B N. Main St., Fort Bragg, California



"To mark someone for life is a great responsibility that involves a deep understanding of the history and craft of tattooing. This is passed down to us by our teachers some of whom have passed on, some from Japan, Burma and Europe. Whoever marks a person is responsible for that mark. This process is deeper than we wish to acknowledge. The tattoo artist initiates the ceremonial process with the person wanting a tattoo. And even though there are no drums beating or chanting, this is perhaps the oldest ritual on earth." Mr. G.

Photo by Chinchilla. Sacred Yantra Tattoos by Sodom Sakorn & Shaman Krittong, Northern Thailand

IRON BODY

TE BU SAN QI GONG

by Dr. G. K. Knowlton

This is an interesting Qigong that can be used to strengthen the entire body. The amount of benefit you will derive from this will be equal to the amount of effort. For the elderly or those with severe physical limitations such as heart problems or crippling arthritis, these movements can be done slowly and gently like tai chi.

For those interesting in gaining muscle mass, burning fat, increasing strength or serious martial arts training, the movements should be done with as much force as possible.

This is an Iron Body Qigong or Te Bu San, closely guarded for centuries. It was practiced by warriors as a means of fitness. According to legend repeated practice would allow one to withstand a stabbing attack as the knife would not be able to penetrate the skin. Of course, this is for historical reference only, please do not test it for that.

Remember, no matter what your purpose, everybody will do the same movements. Those wishing a good physique and improved strength should tense the muscles as hard as possible while performing the movements.

Those wishing increased chi flow and mild exercise should not tense the muscles, just do the movements as slow and easy as possible.

Doing the movements slowly is a great way to speed up healing of aching joints and muscles.

I start off by applying Dit Da Jow to my joints and taking a little Shaolin Tiger Elixir. This is a herbal preparation used for centuries for the purpose of strengthening the muscles, ligaments and tendons and to prevent energy blockages or musculoskeletal problems. It is intended for use by those who wish increased health, great range of motion of joints, increased strength in arms and legs. It was a traditional formula used by the Shaolin monks when great strength and flexibility were required. It was fabled to make one powerful enough to fight tigers, hence the name.

If you are interested, please drop me a line and I will tell you how to make Shaolin Tiger Elixir.

Dr. Knowlton is a Chiropractic physician who practices at 5555 E 71st St. Suite 6100, Tulsa, Oklahoma, 74136, 918-496-8011, Fax 918-496-8012. He was recently inducted into the World Martial Arts Hall of Fame.

'Doc' Goes From Mending To Mashing as Wrestler

Tulsa's own Dr. Jekyll and Mr. Hyde practices chiropractics at a small office in the south part of town.

At 6 p.m., Dr. Kerry Knowlton abandons the white coat for a gym bag, tennis shoes and a vigorous workout with weights.

That's when the chiropractor, 6-foot-5 and 250 pounds, becomes professional wrestler Doc Savage, rogue of the ring.

Knowlton wrestles throughout Oklahoma, Texas, Arkansas and Missouri with International Pro Wrestling. His character, Doc Savage, who shares his name with a pulp-novel hero but bears no similarity, will stop at nothing to win, Knowlton said.

"He'll cheat, break rules and do whatever it takes to win a match," he said. "Everyone hates him."

When most young boys dreamed of wearing the uniform of a baseball player or firefighter, Knowlton envisioned himself donning pink boots, black tights and a black sequin jacket, and body-slammng huge men dressed in similar outfits.

The 40-year-old realized his



Dr. Kerry Knowlton as pro wrestler Doc Savage.

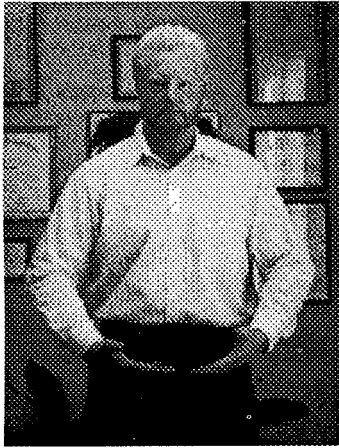
boyhood dream a little later than most.

At 37, Knowlton was about 20 years older than other wrestling hopefuls who showed up in Dallas three years ago to compete for the team. He credits exercise and nutrition for his youthfulness.

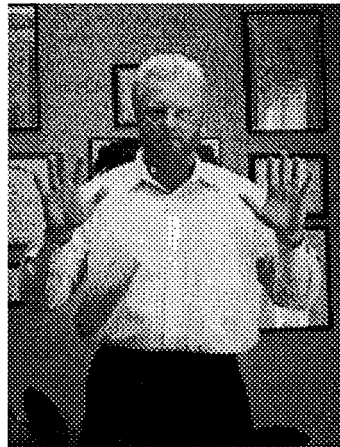
"I'm at 40 now, and I'm in as good of shape as I was at anytime in my life," he said.

Iron Body Movements

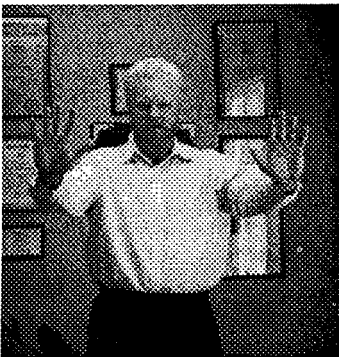
IMPORTANT: The amount of energy you use will determine your results. The elderly and the physically challenged should do the movements slowly and gently. For strength, increased athletic ability, martial arts, and bodybuilding, tense the muscles as hard as possible while doing the movements.



←A. From this position, bring the hands up with palms facing the sky. Breathe in deeply and slowly as you raise hands. The breathing is VERY important. ALWAYS follow breathing sequence.

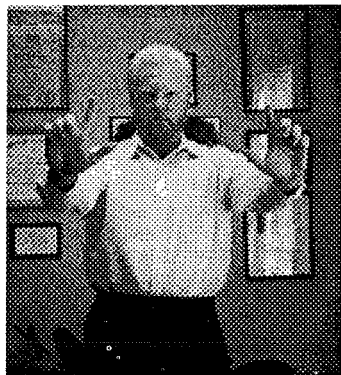
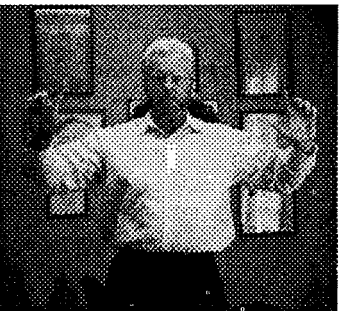


B. When hands are shoulder high, rotate them so palms are facing away from you. You are still breathing in at this point. →



←C. Push hands away from you breathing out. For the physically limited, this should be done as slowly and gently as possible. For increasing strength and physique improvement, push out as hard as you can, like doing a maximum bench press.

D. This is an alternative method of holding hands while doing same movements. →

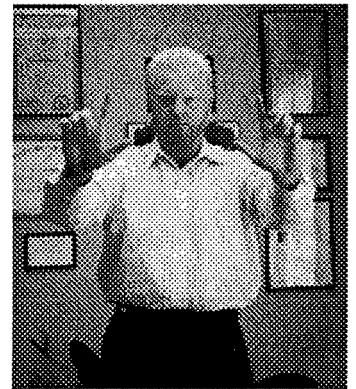
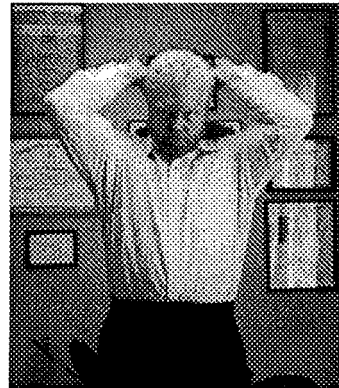


←E. Leading with the elbows, draw hands back, trying to touch elbows behind back. Breathing in.



↑F. When you have reached as far back with your elbows as you can, turn hands out and press out to sides, like Samson pushing down the temple. Breathe out slowly.

G. Breathing in, bring hands in front of you. →



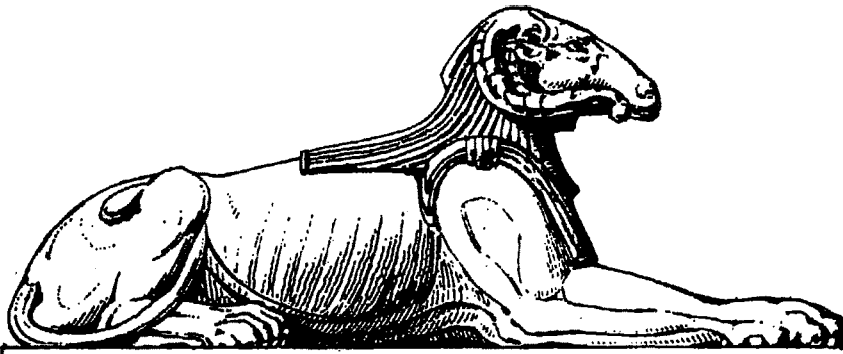
←H. Breathing out, reach hands as far behind you as possible.



I. Pause, breathe in and exhale as you bend over. →

You would either stop or inhale and start again at movement A. Even the most advanced athlete will find himself sweating if ten of these sessions are done without stopping. Excellent for bringing out definition. A very good mild exercise and great for helping pain from injured joints or arthritis.

If you have any questions about this or any aspect of Qigong such as Dit Da Jow or Tiger Elixir, please feel free to write Dr. Knowlton.



THE PUNDIT CURMUDGEON

NON - RETINAL VISION

© 1993 E.D. O'Brian

In theory an advantage of a vacation is that one has a chance to relax and think. Those who think that this is a pure blessing have very confused mental processes. It can lead to frustrations with both the past, the present and foreseeable future.

Probably these can result from reflecting upon virtually anything within the perimeter of Borderland technology. This column is the result of relaxation causing the author to get riled up over a topic which seems to have been omitted from this publication during at least the past few years — non-retinal vision. If you don't recognize this term see if you can recall "eyeless sight", "enhanced nerve sensitivity", "non-ocular vision" or any other title that these headings may suggest.

Eyeless sight is hardly a new topic. Years ago a friend consulted me about bringing a tort action against a well known entertainment personality who had apparently accused several others of improper conduct in demonstrating that a person could do various things not amounting to normal vision such as recognizing various objects, read newspaper headlines and others when blindfolded. Apparently he considered that a patent lawyer should be able to handle something of this type, especially if he was licensed to practice law.

After educating this friend on the fact that most patent lawyers have that quantity of knowledge about general law and especially tort law which is dangerous to themselves and their clients I managed to find an extremely well known tort firm which was very interested in taking the case on a contingency. To the best of my recollection the case was not filed because of the pro-

spective plaintiff's personal complications. This is a pity since a trial on this point might have given the topic sufficient publicity to force a consideration of the topic by those concerned with the blind.

This topic of non-retinal vision was effectively lost in the memory cells of my brain until years later I was fortunate enough to run into a paperback entitled Eyeless Sight naming Jules Romains as the author (©1978 by Citadel Press, ISBN 0-8065-0632-6). On getting the volume it turned out that it had been translated from a French book entitled Vision Extra-Retinienne written by Louis Farigoule, probably under his own name. He became a giant of French literature using the pen name "Jules Romains".

In what is hopefully a more accurate translation than the translation of the title the work was discussed by the author in this field and embellished it with theories and beliefs founded on not too clearly specified experimental work tempered and extended by the author's logic. This experimental work appears to be only partially set forth in the text and in the appendices to it. The introduction by a Leslie Shepard was quite helpful in relating the subject matter of the book to the work of others.

The eyeless sight book made it clear that the prospective client I had referred elsewhere had not discovered a new phenomena, but instead rediscovered an old one. There were minor variations in the procedures used by the client and those set forth in the book. Both had concentrated on blindfolding persons with normal vision, having them assume a relaxed mental state and then "exposing" uncovered regions of their hands and faces to items such as play-

ing cards, news paper headlines and other items until they recognized nerve sensations corresponding to these items. This sounds simpler than it is.

Although neither the text of the book nor the prospective client mentioned the expression "a state" it seems that if the students had not been in such a somewhat relaxed mental state that the teaching process in developing this extrasensory vision must have been most difficult. The basic premise of the procedure was that nerve endings on various parts of the body could be activated to a degree of sensitivity necessary so that a person's brain could develop a mental image corresponding to but of far less completeness than the mental images of normal vision through prolonged exposure to various objects. Logically the mental images formed in connection with this must be closely related to the images obtained by the multifaceted eyes of common insects such a flies.

When I was first introduced to the topic it was indicated that this non-retinal vision was easily explained by the theory that the nerve endings used were merely picking up reflected heat or infrared radiation. This was demonstrated by having me pass the palm and back edge of my hand back and forth over different playing cards located on the dining room table in my home under a moderately intense table light. Almost from the start it was possible to distinguish between cards such as an ace of hearts or diamonds and the nine of spades or clubs. With a little practice it was possible to discriminate between cards which did not have a significant variation in their ability to reflect or absorb infrared radiation.

At the time the friend who contacted me explained that nerve endings on the face—particularly along the cheek bones and the upper lip—could be developed in the same manner I was apparently educating nerve endings in my hand. But then he emasculated the theory he was espousing by explaining the importance of only allowing a person to use non-retinal vision when blindfolded or when they mentally associated the process with some other abnormality in their dress. An example of this he used was the movement of a wrist watch from its normal location on one wrist to the other.

As the explanation of this continued it was indicated that other than simple infrared radiation was apparently used in sight-

less sight. He theorized that some unknown radiation which passed in part through most objects and which in part was reflected by such objects was employed since those who developed non-retinal vision were apt to develop the skill to such an extent that they could "see" through barriers such as internal building walls. If this ability was developed far enough he believed that a person would become psychotic by current community standards.

In retrospect it seems obvious that the intent of the use of a change from normal conditions such as the wearing of a blindfold is a way of minimizing the chances of these consequences. This goes further than the change becoming an aspect of a mental barrier against the common understanding that a person can only see with his or her eyes. If a person's sightless vision starts to progress past vision as we normally comprehend it whatever has been used in association with this vision can be taken off or changed back to an original position so as to signal to the brain that the period for using this sightless vision has ceased.

When a person's mind associates—at least subconsciously—with the blindfold, the change in the position of a wrist watch, or whatever is used as an aspect of his or her sightless vision the reversal of this change should at least in theory operate as a signal within the brain to switch off this abnormal ability. This can be used to block the development of the "skill" or nerve sensitivity to the point when possibly undesirable abilities are created. It also is simply a good way for a person with non-retinal skills to escape them.

One would have to be mentally blind to escape the implications of non-retinal vision to those who are really blind or who have quite limited eyesight. Have you ever thought of the implications of not being able to read things such as this column? Perhaps largely as the result of being legally blind in one eye the writer has lived in at least concern about the status of his good eye. The possibility of sightless vision having at least some of the attributes of the real thing seems somewhat reassuring even though it is recognized that the older one gets the less the "flexibility" of youth and, hence, the less the possibility that normally unused nerve sensitivity can be developed.

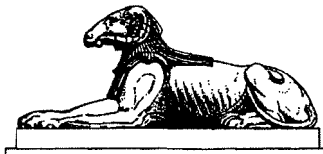
A person who is really blind must lead a comparatively undesirable existence.

Think about the extent to which even a vestige of an ability to discern objects and read headlines would mean to such a person. While the limited ability to recognize objects and letters apparently achievable by non-retinal vision cannot be expected to remove any individual from the need for some sort of financial and physical assistance in coping with and surviving life it should be quite valuable in improving the quality of that person's life.

As with many developments in the Borderland and other fields many factors work against sightless or non-retinal vision being effectively utilized. The fact that "everybody knows" that vision means ocular vision is probably the principal reason for the lack of attention given to this topic. After all, why waste the time on something when you know that it won't work. Fear is probably involved in the non use of sightless sight. Since this is an unknown topic who knows what hazards may be associated with it. Since it is not expressly approved by religious tradition is it the work of the Devil?

In addition one can not ignore the position of vested interests in the failure of society to even thoroughly investigate non ocular vision. Although those who care for the blind will undoubtedly deny it the possibility of their fighting changes flowing from the adoption and use of non-retinal vision on at least a subconscious level is quite real because of the possible effects on their manner of earning a living and/or because they might need to change the way they have dealt with the blind.

Considering the lip service endorsing change as applied by laws and conduct so as to suppress anything new the failure of the "establishment" to investigate sightless vision is hardly surprising. This same type of resistance is encountered in connection with many developments in the Borderland field. Frustrations and fears resulting from social rejection are unquestionably resulting in many developments in Borderland subject matter being kept on at least a semi secret basis. If we relax enough to take the time to reflect upon them we only reinforce negative attitudes when they should be enhanced to prevent society from grinding us down to inactivity.



EXPLORE!

NEW DIMENSIONS

A bi-monthly journal of
80+ exciting pages
exploring alternative methods
in Health, Medicine,
Energy and Physics

Non-toxic alternative
solutions being used
successfully for Cancer,
Aids, M.S., Parkinsons,
Chronic Fatigue and other
illnesses

The latest research in
free energy devices



We
take
pride in
publishing
leading edge
information from
All Around the World

Subscribe today!

United States	\$59
Foreign Countries (regular mail)	\$75 U.S. Funds
Foreign Countries (air mail)	\$100 U.S. Funds

EXPLORE!

P.O. Box 1508
Mount Vernon, WA 98273

206-424-6025 / 424-6034
(Inquiries)

1-800-845-7866
(Order Desk)

Send check or money order for
your subscription or write
today for a free listing
of all articles to date

ON THE NATURE OF ELECTRICAL INDUCTION

by Bruce dePalma

"It is the conceptualizations which are important."

A. S. Eddington, Fundamental Theory, 1944

The phenomena of electrical induction which are fundamental to electrical science have long since passed into everyday experience. Recently the nature of this fundamental principle has been reexamined in the light of experiments with electrical machines, which, in their operation violate the conservation laws or charge and energy.

In my early schooling (M.I.T. class of 1958) I was struck by the attention paid to magnetism, magnetic circuits, electrical machinery and magnetic properties of materials. No attention was given to magnetism as a source of understanding of the machines and apparatus which employed it. This attitude was forced on a student because the consensus was: all that needed to be known about magnetism was known because electrical machines obeyed the conservation laws. i.e. one way of generating electricity was as good as another since all machine efficiencies could be "improved" or designed up to the point of a maximum efficiency of 100%.

To point out that electrical efficiency measurements are based on the "mechanical equivalent of heat", 746 watts/horsepower, measured with a calorimeter and paddles by James Watt (inventor of the steam engine) in the late 18th century; a number suspect both in its relevance and accuracy, and sensitivity to experimental vagaries, was heresy.

The concern of this paper is not with all the experiments which have demonstrated anomalous "over unity" energy production, but with the operation of machines which clearly demonstrate violation of energy and charge conservation laws through continuous production of electrical power in excess of the electrical power used to drive and/or energize the machine.

The experimental performance of over-unity machines, the N-machine and Space Power Generators are substantially covered in the literature and are not repeated here. References (1-7)

The basic question is: do electrons flow in a conducting circuit impelled by magnetic forces, or, are the electrons created in situ by the magnetic forces, collected by the conducting wire, and then impelled to flow in the appropriate direction by the well known force interaction of electrons and magnetism?

Einstein treated electromagnetic induction as simply a relationship between two members, i.e. the magnet and the wire. He would ask, "what is the point?"

The point is if we stop at Relativity as being the finest appreciation of the experimental situation we would never inquire into the nature of magnetism.

If we consider the original flux cutting experiment of Faraday where a conducting wire is passed through the field existing at the pole of a magnet we observe an electrical potential across the ends of the wire as long as the wire is moving. Reversal of the direction of motion of the wire reverses the polarity of the created electrical potential. If the potential created is applied to an electrical circuit and current flows then a resistance to the applied motion ensues. (Lenz's Law). Here the is question: is Lenz's Law a concomitant or a consequence of the production of electrical energy?

It is not useful to discuss something as fundamental as magnetism at the level of inquiry we wish to pursue without a model of the Universe. Tewari is one of the few researchers who has recognized this. Reference (8).

Magnetism is similar to the gyroscope in that both effects are used in navigational apparatus which depend on an element which retains its orientation either to an external reference, (Earth magnetization), or to itself. What can we say of effects which have directional properties yet seem to orient themselves only to each other or to themselves.

Obviously the magnet and the gyroscope are oriented to a force which does not have a geometric extension into our 3 space. The clear implication is that the magnet and the gyroscope orient themselves to the flow of time energy.

A model of the Universe can be represented by a vortex ring; in which space and time are perpendicular to each other. Figures (1&2). The flow of time energy energizes our Universe. It is this to which the magnet orientates. Figure (3). The magnet has the property of collimating and concentrating the time energy flow.

Why is all this necessary? It is a consequence of a Universe created from nothing—the void.

In a Universe created from nothing, time extension is necessary so the Universe shall not re-collapse in any instant called the NOW. Time extension exists over multiple instants, the sum of which equals the lifetime of particles found in our 3 space. The quantum of time is the Instant.

Magnetism has nothing to do with iron and electrical solenoids per se. It is the property of

these instruments to orient to and concentrate the time energy flow.

In our practical society it is customary to extract energy from the natural flows, i.e. water and wind. If there was an invisible flow through a magnet or solenoid how could we extract the energy? Suppose we were to construe a copper disc placed in front of a magnetic pole *à la* Faraday as a form of propeller the pitch of whose blades could be changed by the application of an electrical potential between the center and outer edge. The flow of time energy through the magnet would cause the propeller to rotate like a fan blade in a current of air. The fan can be placed at either end of the magnet, and, providing the pitch of the blades is maintained unchanged in magnitude or direction, it will rotate in the same direction.

If mechanical power is extracted from the shaft or propeller disc then we would find it more difficult to maintain the electrical polarization, i.e. more current would be required. If the rotating Faraday disc apparatus is viewed as a transducer between the electrical power input required to polarize the disc and the resultant mechanical shaft horsepower, then the conservation laws would say the mechanical power out could ever exceed the electrical power in. Of course these two quantities are related through the mechanical equivalent of heat experiment with the paddles agitating water in a calorimeter. Acting with the insight of Einstein we would say that experiments which produce identical results, i.e. agitating water with paddles to produce warming versus mechanical input to a machine which produces electricity which is converted to heat by a resistor immersed in water in a calorimeter; are equivalent, thus the figure 746 watts mechanical horsepower derived from these measurements is a true and reliable number for all the world to see.

We know a priori that no transducer or electrical machine can operate at greater than 100% efficiency so then if we are slightly uncertain about the 746 watts/horsepower figure we can adjust the units to get the exact number right.

"Scientists" feel no guilt with introduction of certain "constants" because they are protected by the conservation laws which are based on common sense which everyone knows is true.

If we return to the analogy of the fan and the magnet we might suppose that rotational drag effects might exist adjacent to the rotor.

The action of these drag effects would be to drag the magnet, i.e. cause it to rotate in the same direction as the disc. Clearly then a reduction in mechanical drag on the rotor could be effectuated by attaching the magnet to the disc and allowing them to rotate together.

Of course if we adhere to the Law of action and equal and opposite reaction then we would never try such an experiment because we would expect the magnet to be acted on by a torque equal and opposite to the shaft horsepower exiting the rotating disc.

It has been known for 100 years that the exciting magnet of a homopolar or Faraday disc motor or generator exhibits no reaction torque to the mechanical forces generated by the polarized disc. Reference (9&10).

Contemporary experiments have also shown the Faraday disc to be a superior motor or generator when the fixed exciting magnet is attached to and rotates with it, thereby removing a constant drag which is superimposed on the mechanical input, or output of the machine. *(Ibid. Reference 4).

What has all this to do with electrical induction or flux cutting? Simply nothing.

A mistake was made in science 150 years ago through what Einstein identified as the Principle of Equivalence and energy conservation laws based on physical conceptions of the 18th century. It was the attempt of science to square the behavior of the one-piece Faraday disc machine with the performance of two piece induction machines where magnetic flux lines were perpendicular to the axis of rotation.

It simply turns out that the efficiency of a two-piece Faraday disc machine is close enough to that of an equivalent two piece induction machine, about 1%, so that generic differences between the two families of machines are concealed in the indeterminacy of the exact number for the mechanical equivalency of heat. Reference (11). If the magnet is loosed and free to rotate with the disc, i.e. the one-piece Faraday homopolar generator, then the true distinction in families of machines is revealed. The one-piece Faraday machine is

*Tewari has investigated the co-rotating Faraday homopolar motor. He calls it the Space Power Motor or SPM. The increased torque available when rotating is mitigated by a "slip-page" which increases with rotational speed. Over a certain speed range the product of the two effects can result in a superior machine.

superior to the two piece induction machines both as generator or motor.

Without trying to tangle the reader in the circularities and tautologies of modern scientific reasoning, acceptance of a family of motors and generators without stators to receive reaction torques contradicts Newton's third Law. We can avoid consideration of this problem by not using these sorts of machines.

Men are more persistent in their pursuit of inquiry. If a superior machine is found men will endeavor to explain it. If a machine produces in excess of 746 watts per input horsepower what is our interpretation of this "excess" energy

The suggested structure is the one-piece Faraday disc, homopolar generator. Figure (4).

The magnetic flux lines become the time lines of the space energy flow and the rotating disc is the 3-space Universe existing in the instant of the present.

As for the family of two piece induction machines, these are seen by this author to operate on the principle of transformer induction, including D.C. machines which are nothing but transformers with rotating secondaries and mechanical commutators for rectification.

A superior motor would produce more output power, torque x speed of rotation, per increment of input electrical excitation. The output power would exceed 1 horsepower for 746 watts of electrical input.

A superior generator would produce more than 746 watts electrical output per horsepower input.

A two-piece induction machine operating essentially as a rotating transformer would never be able to exceed 100% electrical efficiency because electrical transformers in themselves are not known to be able to create energy (There may be special circumstances where this is not true, but these peculiar effects characterized by a negative μ are not normally encountered in conventional electrical machines).

The mirror image symmetry characteristic of the input and output ports of a transformer is carried over to the equivalence of two piece induction machines operated as motors or generators. This motor-generator symmetry is not characteristic of the one-piece Faraday homopolar machine.

As a generator the one-piece homopolar machine evinces reduced drag in comparison with the two-piece induction machine for the production of equal amounts of electrical power. This is because the perceived mechanism of operation is to precipitate electrical charge from the time-energy

flow by a centrifugally engendered force field. Reference (12).

As a motor the one-piece homopolar machine produces the same amount of torque as an equivalent two-piece induction machine for measurements made with a blocked rotor. Reference (13). The reduction of magnetically induced drag by attachment of the magnet to the rotor is not evinced by static measurements.

The torque attainable from a motor acts in relation to the Earth reference frame. For a two-piece induction machine, the stator, the receptor of the reaction torque from the rotor, is physically attached to the Earth reference frame. In contrast the one-piece homopolar

Toroidal Model of the Universe
(space orthogonal to time flow)

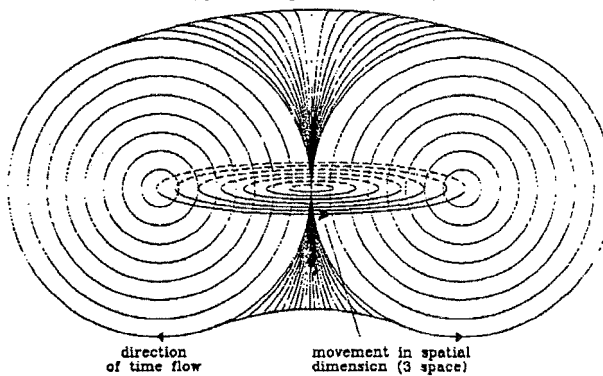


figure (1)

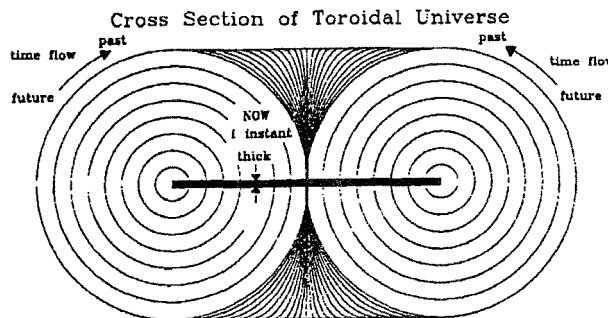


figure (2)

production.

The Universe is alive and this is beyond our powers of conception. We can say, based on our experience, a certain intellectual model can be constructed. This is like saying the world is round or that the planets rotate in circles around the sun. Neither statement is exactly true, but they rationalize information in our minds and lead to new knowledge.

We are familiar with the process of transmission and reception of electrical energy by means of resonant structures known as antennas.

An antenna for the reception of Universal Energy would be a model of the Universe itself.

machine has no fixed Earth reference. With the rotor blocked there is a physical connection to the fixed Earth reference frame and the relationship between motor torque vs. current input follows conventional expectations.

With the magnet of the one-piece machine loosened to rotate with attached Faraday disc the mechanical connection to a fixed Earth reference frame is broken. With this connection broken the ability of this motor to do useful work is compromised by the necessity of transferring torque from a rotating reference frame to a fixed one. As the one-piece machine rotates at increasingly higher speeds the torque connection between the rotating frame and the fixed Earth frame becomes more tenuous until the torque output of the machine is balanced by mechanical losses. Further increases in motor current result in increasingly disproportional torque to the point where no further current increase can produce an increase in motor speed.

It is for this reason the one-piece homopolar Faraday machine is a far better generator than it can be as a motor. Better in comparison with the two-piece induction machines.

What we have uncovered is a second family of electrical machines. If a genealogy of electrical machines is projected we would see the two-piece induction machines, with symmetrical motor-generator properties and limited by the properties of transformers to the 100% efficiency level in contrast to the one-piece Faraday homopolar machines. The one-piece machines transduce multiples of the 100% efficiency factor of the transformer machines in the generator mode but are not completely useful as motors because of self limitations of torque and speed output. The reduced drag obtained by physical connection of the magnet to rotate with the disc in the motor mode is not unambiguously useful since the torque output of the machine is only with respect to the rotating reference frame of the machine. The rotating reference frame is only tenuously coupled to the fixed Earth frame thus torque output can only arise through the dragging action of these two frames against each other.

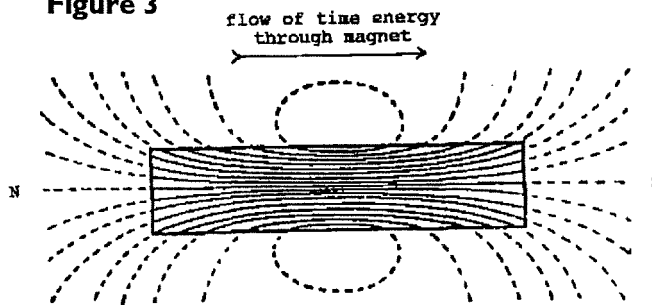
Returning to the consideration of electrical induction we conclude that the Faraday conceptualization of flux line cutting is spurious and not worthy of further consideration.

Faraday's ideas about transformer induc-

tion are correct and form the basis of two-piece induction machines presently in commercial usage.

The conceptualizations of spatial energy and spatial time distortion *(Appendix 1) were not available in the time of Faraday, conse-

Figure 3

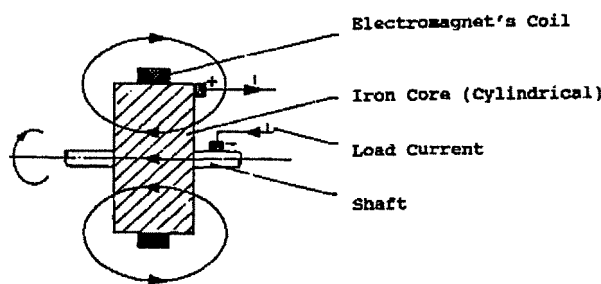


Interpretation of Magnet

quently the idea of flux line cutting was invented. The persistent dispute over whether flux lines rotate with the axially rotated magnet or not is a consequence of this incorrect hypothesis. The idea that electric charge latent in space can be precipitated into a moving conductor opens a door to accessing the Universal Energy flow which is implicit in a model of a Universe with time extension which is created from nothing.

The only general principle this author is

DePalma's N-Machine



One-Piece Faraday Homopolar Generator

aware of is God. Symmetry, equivalence, relativity and conservation are not sufficiently general enough on which to base physical conceptions. The paradoxes, contradictions, and general incompleteness of contemporary physical theory speaks to this.

Bruce dePalma, 1993

References:

1) Kincheloe, 1986, "Homopolar 'Free Energy' Generator Test"; paper presented at the 1986 meeting of The Society for Scientific Explora-

tion, San Francisco, California, June 21, 1986; revised February 1, 1987. Address: Dr. W. Robert Kincheloe, 401 Durand/TTV, Stanford, California

2) DePalma, 1988, "Initial Testing Report of DePalma N-1 Electrical Generator"; Magnets in Your Future, vol. 3, no. 8, August 1988, pp. 4-7, 27; P.O. Box 250, Ash Flat, Arkansas

3) Tewari, P., "Generation of Electrical Power from Absolute Vacuum by High Speed Rotation of Conducting Magnetic Cylinder"; Magnets in Your Future, vol. 1, no. 8, August 1986.

4) Tewari, P., "Space Power Generation"; Magnets in Your Future, vol. 6, no. 8, August 1992.

5) Tewari, P., "Generation of Cosmic Energy and Matter from Absolute Space (Vacuum)"; proceedings of the International Symposium on New Energy, Denver, Colorado, U.S.A., April 16-18, 1993.

6) Inomata, S., and Yoshiyuki, M., "Small Neodymium Magnet Twin N-Machine"; proceedings of the 28th I.E.C.E.C., Atlanta, Georgia, U.S.A., August 8-13, 1993. Address: Dr. Shiuji Inomata, Japan Electrotechnical Laboratory, MITI, 1-1-4 Umezono, Tsukuba-shi, Ibaraki, 305, Japan.

7) Laureti, E., "Alcune Osservazioni sull'Induzione Unipolare"; Nova Astronautica, vol. 12, no. 54, pp. 27-33, 1992.

8) Tewari, P., Beyond Matter; Printwell Publications, Aligarh, India, 1984.

9) Kimball, A.L., Jr., "Torque on a Revolving Cylindrical Magnet"; Physical Review, vol. 28, December 1928, pp. 1302-1308.

10) Das Gupta, A.K., 1963, "Unipolar Machines, Association of the Magnetic Field with the Field Producing Magnet"; Am. J. Phys., vol. 31, pp. 428-430, 1963.

11) Private conversation reported by Adam Trombly with physicist developing superconducting homopolar motors and generators for the U. S. Navy ship propulsion project, 1980. "I suppose only a physicist would worry about this but the efficiency of the homopolar generator, (superconducting two-piece), is 1% higher than calculated, 97% vs. 96%." - A.D. Trombly, Director of Research and Development, Zero Point Technologies Inc., P.O. Box 1031, Evergreen, Colorado, U.S.A.

12) DePalma, B., "Magnetism as a Distortion of a Pre-Existent Primordial Energy Field and the Possibility of Extraction of Electrical Energy Directly from Space"; proceedings of the 26th Intersociety Energy Conversion Engineering Conference, I.E.C.E.C., sponsored by the I.E.E.E. (U.S.A.), August 4-9, 1991. Boston, Massachusetts.

13) Crooks, Litvin, and Matthews, 1978, "One Piece Faraday Generator: A Paradoxical Experiment from 1851"; Am. J. Phys., vol. 46, no. 7, July 1978, pp. 729-731.

SIMPLE EXPERIMENTAL TEST FOR THE INERTIAL FIELD OF A ROTATING REAL MECHANICAL OBJECT

(Published as: "The Tuning Fork Experiment" in: "Is God Supernatural" R. L. Dione, Bantam, 1976)

Introduction: For the last five years, this investigator and others, have studied the mechanical properties of rotating objects for the purpose of application of certain heretofore undiscovered properties of rotation to new forms of propulsion machinery and machines with anti-gravitational effect. The course of this investigator has not been to try to perfect new propulsion machinery, per se, but however to thoroughly investigate the phenomena of rotation.

The result of a great deal of experimentation (see appendix), has resulted in a picture which relates the performance of certain non-conventional machinery: Dean, Laithwaite, Wolfe, DePalma, to a variable inertia property which can be engendered through motion of a rotating object.

In terms of the acceptance of a new body of information relating to the properties of rotating objects and variable inertia, a simple experiment has to be devised which clearly demonstrates the new phenomena. In the performance of experiments with large rotating flywheels, there are great experimental difficulties which result from experimenting on the large rotating flywheels themselves. Through a series of corroborating experiments it has been established the anisotropic inertial properties of a rotating object are conferred on the space around the object. That is to say the space around a rotating object will have conferred upon it an inertial anisotropy. Let us ascribe this to the setting up of an od (odd) field through rotation of a real physical object. The purpose of the experiment to be described is the determination of one of the properties of an od field. The anisotropic inertia property.

The Experiment: A good way to detect a field whose effect is a spatial inertial anisotropy is to use a time measurement based on an inertial property of space and compare it to a remote reference. With reference to figure A we have a situation where the timekeeping rate of an Accutron tuning fork regulated wrist watch is compared to that of an ordinary electric clock with a synchronous sweep second hand.

The Accutron timepiece is specified to be accurate to one minute a month. Examination

fields from the gyro drive motors are almost entirely absent; any remaining leakage is removed by co-netic magnetic shielding. The Accutron is also in a "nonmagnetic" envelope.

The purpose of the experiment is a simple demonstration of one of the effects of the od field of a rotating object. The demonstration may easily be repeated using any one of a variety of rotating objects, motor flywheels, old gyrocompasses, etc. The rotating mass of the flywheels used in these experiments is 29½

pounds. The rotational speed of 7600 r.p.m. is easily accessible. The effect is roughly proportional to the radius and mass of the rotating object and to the square of the rotational speed.

Finer measurements can be made using an external electrically powered tuning fork oscillator and an electronic frequency counter. In this case the inertial anisotropy of the od field of a rotating object can be much more quickly and precisely measured. Field strength lines can be plotted along contours of constant frequency shift for the two orientation conditions of fork vibration direction parallel to, and perpendicular to, the axis of rotation of the test object.

Conclusions and Observations: The proper conclusions and evaluations of the above experiment will affect present conceptions of Cosmology. Before this can happen, simple tests must be performed to show the existence of new phenomenon. It is hoped the apparatus for the

performance of these tests is widely enough available to lead to quick verification.

Bruce dePalma

1) Eric Laithwaite, John S. Wolfe, Edward Delters, Bruce dePalma.

Appendix (to this appendix): Axial moment of inertia measurements of constrained gyroscopes, pendulum experiments demonstrating anisotropic inertia of a rotating body. (available from Bruce dePalma)

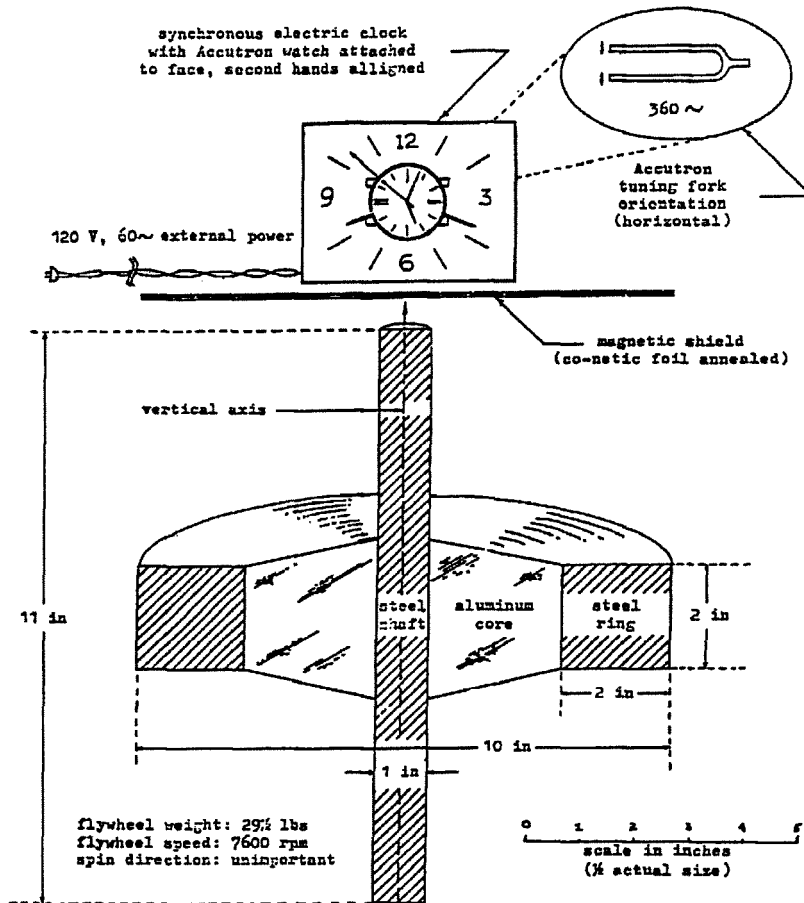


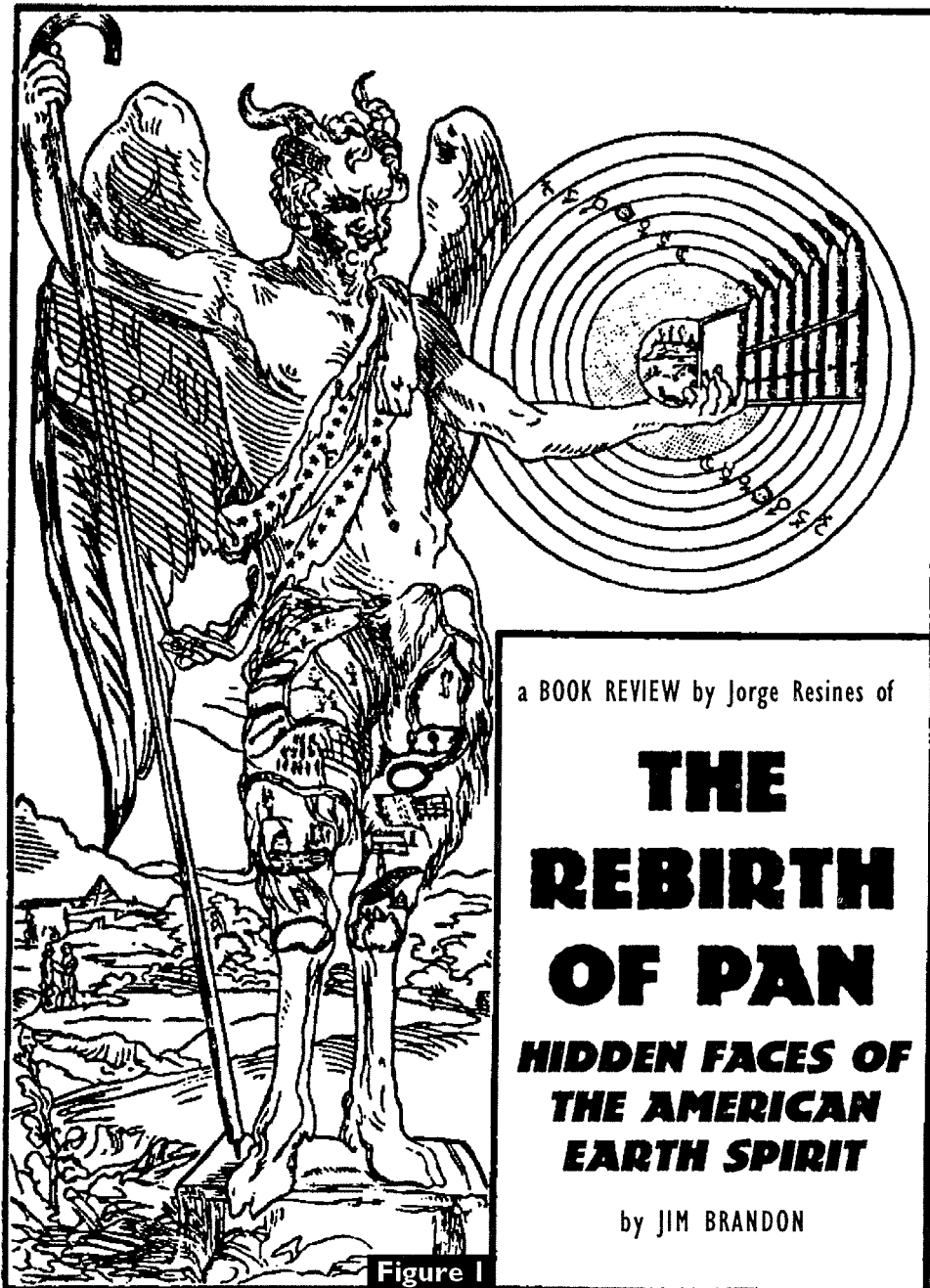
Figure A

Inertial Field Experiment

of the relative time drift of the Accutron electric clock combination shows a cumulative drift of .25 second Accutron ahead for 4 hours of steady state operation. This is within the specification of the watch.

With the flywheel spinning at 7600 r.p.m. and run steadily for 1000 seconds (17 minutes), the Accutron loses .9 second relative to the electric clock.

Much experimentation has shown that the effect is greatest with the position of the tuning fork as shown. Magnetic effects from leakage



PART I : REBIRTH OF PAN

Jim Brandon gives the name of "Pan" to an invisible force existing throughout the globe that is able to manifest itself through the materialization of both dynamic and static phenomena, to wit:

- ☛ Strange "creatures" (Bigfoot, "Mothman", the New Jersey "Devil", etc.) that sometimes are aggressive towards human beings (most notoriously against menstruating women), and sometimes just pass by them without any action whatsoever.

- ☛ The "mounds" existing throughout the USA and the rest of the world in different types of embodiments; gigantic accumulations of carefully layered soils (of diverse types) involving the careful manipulation of untold cubic millions of meters of soil and which contain many different artifacts which were placed BEFORE the soils were carefully laid over.

- ☛ Indecipherable inscriptions (petroglyphs) written on almost unreachable cliffs by agents unknown which are covered by a sturdy dark, transparent cover allowing them to be read, but protecting them from weathering.

- ☛ Artifacts and inscriptions belonging to known peoples of antiquity (Phoenicians, Romans, Hebrews, etc.) but found in the USA after excavations undertaken first by amateur archaeologists and later verified by professionals in the trade. Among these, Jim Brandon lists what Barry Fell and others like him found and translated; indicating that the origins of the aforementioned objects and inscriptions could be materializations of the "Pan" force, instead of what their discoverers have so far assumed (i.e., brought by ancient peoples of the past into the Americas).

- ☛ Lake Monsters like the Loch Ness one, or "Ogopogo" at Lake Okanagan, British Columbia, Canada.

- ☛ Giants skeletons and artifacts found in different States of the USA and later "debunked" by the very institutions that, in the beginning, were entrusted with their care.

The title plate (fig. 1) shows the author's conceptualization of the "Pan" force, as taken from the book "Oedipus Aegyptiacus" by the Jesuit priest Atanasius Kircher. In turn, Kircher's drawing is but an extension of the satyrs taken from classical Greek mythology; being these entities credited with making music through a pipe-assembly called "syrinx"

"IT IS AN EXCELLENT BOOK ... yet the author is said to have recalled most of the copies and destroyed them ... what you see is one of the few available", Tom Brown told me as he delivered into my hands the work of reference (1).

And there I was, at BSRF headquarters, browsing through the pages of this great work that its author himself has recalled to have destroyed.

"Maybe he found his hypothesis was wrong and wanted not to cast such a mistake upon the minds of an unwary readership", thought I on the long trip back to Argentina (15 hours in a plane, you are no longer a human being on arrival...). Yet, quite the opposite, in my opinion, turned out to be the truth; this review is the result of my reading Brandon's book together with others that - in a Goethean manner, so to say - shed light upon the whole affair.

which consists of a group of tubes with different lengths that are blown sequentially by the musician. Curiously, in South America there exists a similar instrument — used from pre-Incan times — that is called “sykoos” (phonetical spelling), the only difference being that the pipes are (at least) three times longer.

As the mounds, in their different embodiments, condense most of what Jim Brandon uses as evidence to back his Pan-hypothesis and also serve as focus for most of the strange phenomena he deals with in the book (1), I decided to use them for analysis:

☞ The mounds, of manifold shapes, are carefully-layered diverse soils that occur throughout the world and meld with it, forming, so to say, part of the landscape in a natural manner.

☞ There is no known hypothesis indicating why they have different shapes according to the region where they are located; when limiting the analysis to the USA, Jim Brandon comments:

“One of the most difficult theoretical problems for the dogmatists is the question of why the effigies are found in the northwestern mound area, hemispherical mounds in the central region and flat-topped ‘temple mounds’ in the present Southern states”. (from page 56 of -(1)-)

☞ No remnants of the technology used to



Figure 3

Mound distribution, covering 975,000 square miles, with locations generally near watercourses and underground springs. Mound patterns changed geographically, with the effigy mounds at the furthest northwest of the mound area.

move the various masses of earth have been found at any place (either close or far from the mounds) which can be attributed to being used in their construction.

☞ As seen in the dots on the map (figure 2) — the dots indicate groupings of mounds instead of single-mound locations — they are

very close to either running brooks or rivers. If the watercourse is not seen overground, it most surely runs under the ground, deep enough so that its waters will not erode the construct.

☞ To give you a very faint idea of what has been unearthed from undisturbed mounds, I have selected from Jim Brandon’s book the illustration of figures 3, 4 and 5.

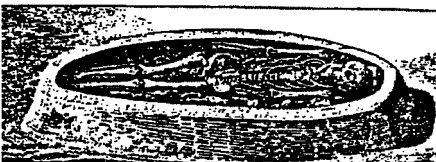
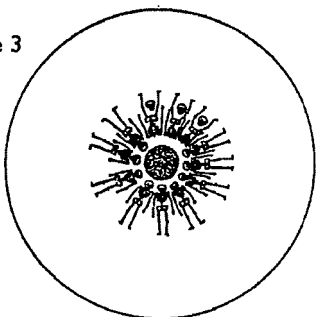
☞ As for who built the mounds, orthodox archaeology has charged the American Indians with the task; yet the Native Americans have pleaded “not guilty” and given their own (usually unheard or ignored) version of the story:

“As for those Indians who did offer a version of the ‘earth structure’ origin, our know-betters will have none of it. John Hackewelder, a missionary to the Delawares, recounted in 1819 this tribe’s record of a people called the Alligewi or Talligewi who once had inhabited the country east of the Mississippi. They supposedly had many large towns and wall-like fortifications, but eventually were driven out of

the area after bloody battles with the Delaware and allied tribes.” (from **The Mound Builders** by Robert Silverberg, Ballantine Books, New York, 1974).

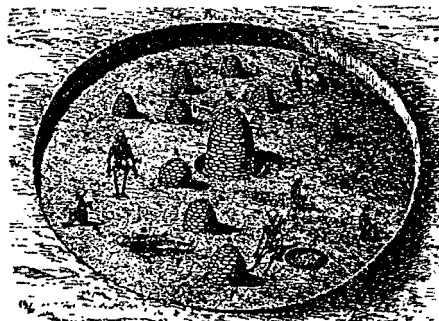
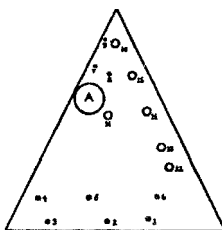
“Many other Indians had similar legends. The Cherokee version was that these predecessor peoples were white, or albinoid,

Figure 3

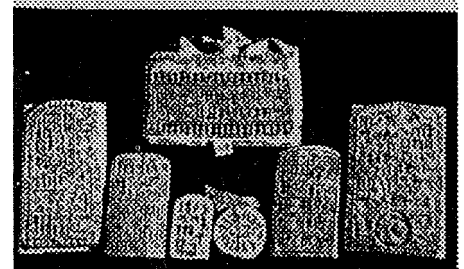
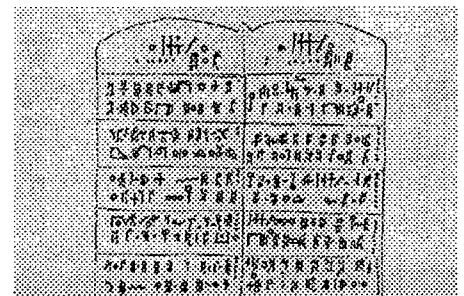


The above mound found in Miami County, Ohio, contains the bones in a macabre arrangement. The lower mound pictured, from Hopewell, Ohio, contains the skeleton in a ‘crucible’ in the words of the excavators.

Figure 4



Patterson, North Carolina mound, containing primitive iron smelters, unknown to Indians.



Copper (above) and earthenware (below) artifacts inscribed with a mysterious form of Assyro-Babylonian text.

and could not see in the daytime. Called 'moon-eyes' by the Indians, these wretches were driven out. They are supposed to have occupied an area near the headwaters of the Little Tennessee river, with forts extending down Chickamauga Creek. The legend recurs in Arkansas, where the moon-eyes are said to have built the many mounds found there. Sioux Indians to the north maintained that the strange people had been exiled to the area of present-day Wisconsin and Minnesota, where they eventually perished" (from **The Folklore of Romantic Arkansas** by Fred Allsopp, Vol.1 Chpt.1; Grolier, New York, 1931.)

"There is another part of the story that adds to the riddle. According to Hackewelder, many of the Alligewi people were supposed to have been giants." (from page 61 of -(1)-).

"Starting around 1911, a large number of giant skeletons and mummies, some of the latter having red hair, reportedly began to be unearthed around Lovelock, Nevada and chiefly in nearby Lovelock Cave. As with the moon-eyes of the eastern United States, local Piute Indians had legends of great wars with these hated giants, whom they called the Si-te-cah. Scientists in Nevada today laughingly deny that there were any such discoveries." (from **John T. Reid's Case for the Redheaded Indians** by D.P. Dansie, Nevada Historical Society Quarterly, Vol. 15, fall 1975, quoted on p. 244 of -(1)-).

I would like to add here a datum from a source I cannot reference (later I will tell you why):

If I do not recall wrongly, the legend exists with the Peruvian coastal tribes from pre-Incan times that giants (7 to 8 feet tall) raped native women to make them pregnant. When the offspring was born, usually the mother died because the baby was too big for a normal delivery.

The tale goes on to say that one day a young man with a shining body appeared flying in the zone where the giants were and exterminated them all with bolts like lightning.

This is to the best of my recall the story; it happened that in 1979 I sold many of my books in which I was no longer interested and among them was included the source of the above-told story. I think that it was either in

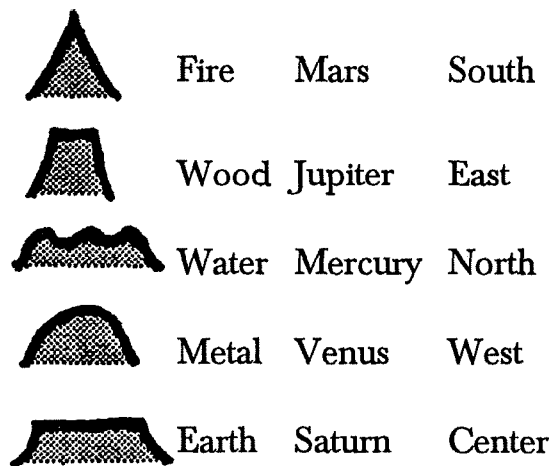


Figure 6

one of the works by Peter Kolosimo, Erik Von Daniken or someone who writes in the same vein; please if you have read the same tale somewhere, tell us the source. Thank you.

In his "Needles of Stone" the British dowser Tom Graves (Granada Publishing Ltd, London, 1980) adds important information that is complementary to what Jim Brandon says on the mounds; figure 6 is an illustration indicating how Feng-shui stated hills should be shaped to relate them to a given "element" in the Chinese system of beliefs. If I am not wrong the Chinese "Metal" corresponds roughly to the Greek "Air". Tom Graves goes to some length in order to explain that, for example, no house made of

wood should be built on a "Fire"-hill, for it will be burned to the ground by the energies therein collected. As it is easy to appreciate, the hills made by Feng-shui concentrate atmospheric electricity at their tops forming an assortment of non-uniform fields. As atmospheric electricity (or, if you are a Reich buff "atmospheric orgone energy") can be used to control the weather, it is not strange that Tom Graves has shown such a manner of manipulation in figure 7.

What he did not illustrate or make clear is that atmospheric electricity (or an "electrostatic field", as it is called when produced by Wimshurst-type machines) can also produce the most strange

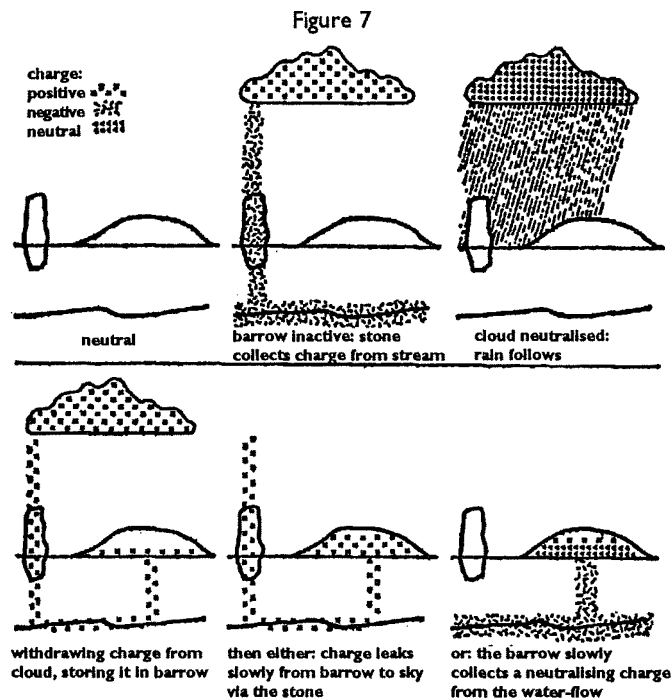
electrochemical reactions within the mounds. One such effect has been, for example, producing the combustion of a layer formed by wood-slabs at several excavated mounds (4).

The only way to understand how this happened, apart from a host of greatly interesting phenomena, is to read carefully the work of reference (3). I have not the slightest hesitation in placing Mrs Betty Zorotovich by the side of the great experimentalist and discoverer Gustave Le Bon; she is a worthy continuator of his experiences, and if you want to understand how spontaneous combustion, cancer growth and slow atomic disintegration happen, hers is the work you need (3).

Also, if you are just a mound-buff without any other pretension than knowing "why under earth!" some things have happened within undisturbed mounds you have just excavated, hers is the book you need.

Believe me, I find no words good enough to praise what she has done other than recommending you invest some money in buying a copy.

Returning to Tom Graves, he has also issued his own hypothesis of why holographic-like apparitions happen near mounds; in figure 8, he illustrates the schematic of the holographic process. In figure 9 he illustrates an analogy of how some person, when close to a mound and after performing the right magical ceremonies, may have been able to store an holographic image that is liable to retrieve someone else, either by the proper magical ceremonies or — if the entity's own



Two modes of thunderstorm control with the stone-and-barrow system

aura fits — by the person standing upon the “proper spot”.

Extending this idea a bit further, Tom Graves states his opinion that UFOs sighted along ley-lines or upon mounds/sacred-spots may not be alien craft but only holographic images of the kind discussed before.

On my own responsibility, I would like to extend this conception of holography to include the materialization of invisible entities, be they either good or bad, from the subtler realms. This personal extension is what I need to link Part I in this review with Part II, as it will become evident later.

Finally, as visible entities go, figures 10, 11, and 12, are three representative cases of the many different dynamic-apparitions that Jim Brandon lists and identifies in his work (1).

Let it be said that he always carefully references anything stated, and that his impressive Bibliography covers eight pages in total, with an average of 24/25 references per page. No, inaccuracy is not—in my opinion—why he recalled his copies of **The Rebirth of Pan**.

INTERMISSION: SOME NEEDED THINKING

While anything could be discarded that can be conventionally explained by the current mindset of knowledge in archaeology (i.e. decipherable texts and artifacts belonging to well-known peoples from antiquity), there are things about the mounds (upon which I centered this review) that need to be pondered upon:

- ☛ Nobody knows—apart from the explanation by the Native Americans—who has built them.

- ☛ It is also unknown WHY they were built, i.e. which was the purpose of moving (over great distances in some instances) and carefully layering untold millions of cubic meters of different types of soils and materials.

- ☛ It is not known WHY — as indicated on page 56 of (1) — their shapes differ from region to region.

- ☛ Also unknown is WHY there were buried within, at some mounds, the most diverse kinds of items (be they metal and stone artifacts, various sorts of skeletons, etc.).

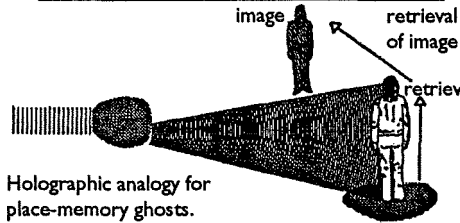
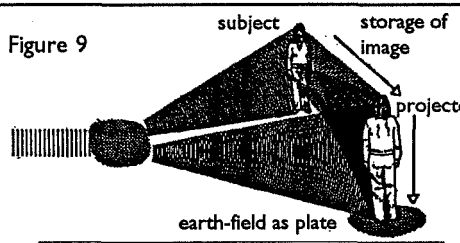
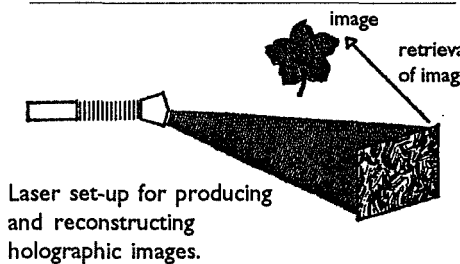
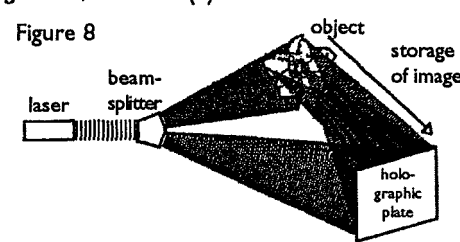
- ☛ Why there occurs either close to a mound or group of them the phenomenon of holographic images of different kinds.

The above five questions would be in the mind of anyone who, unbiasedly, reads Jim Brandon’s work but does not agree with his conception as to the cause of the phenomena brought together.

In my opinion, the answers had been given 25 years in advance (2) and they are the foundation of my hypothesis as to the cause or causes we are after. I want to stress here that this is my personal position and that none of the referenced authors (1)-(4) must be construed as supporting/backing my idea/s no matter how much material I quote from any referenced work/s.

PART II: THEY LIVE IN THE SKY — Lucky people, indeed!

Written under the pen-name of “Trevor James”, the book (2) refers to a race of aliens



inhabiting large (gigantic, to be correct) space stations orbiting close to our planet, but not in our physical density of matter.

For those unacquainted with this work, let us say that by the side our physical density of matter there exists another density that has interpenetrating zones with the material realm; this neighboring density is labelled as “astral” and its inhabitants, of many different types, are consequently labelled “the astrals”.

Higher in vibratory rate above the astral realm there exists the etheric; the home and place of abode—so to say—of the entities

telepathically contacted by Trevor James; it is they who “live in the sky” and not the “critters” that our much admired Mr Constable has so often photographed and established contact with in his early desert researches (circa 1958-1962).

The etheric beings mentioned in the book are ethical entities intent on stopping unethical astral entities from conquering the minds of unknowing humanity. As the story of how Trevor made contact with them, and also was troubled by a prematurely-developed telepathic ability, is fully told in **The Cosmic Pulse of Life** (1991 Revised Edition, BSRF), I will not repeat it here. Notice, please, that not all entities in the astral density are unethical and bent on conquering the minds of humankind; only a portion of them are involved. Two names were involved, each representing an individual, when Trevor dealt telepathically with the etheric beings: “Ashtar” and “Andolo”. The first name I have also found mentioned in Spanish and Italian language books on UFOs, even if it was extended to “Ashtar Sheran”; the second was unknown to me until reading **They Live In The Sky**. [Editors note: Trevor has pointed out that contact with these entities created problems not simply because of a prematurely-developed telepathic ability, but because such useage of psychic powers is far off of the proper path of spiritual development. However, interesting and useful information was extracted from the experience and in the sake of borderland research we present it here. Trevor’s epochal discoveries in primary energy weather engineering ocured after he closed off mental contact with the astral world. TJB]

In these extracts you are about to read, the questions “Q” are always made by Trevor and the answers “A” are invariably responded by Ashtar. As, in my opinion, all paragraphs quoted from this single entity fill in all the data needed to elaborate my hypothesis I did not quote anything from Andolo (whom I extend my apologies, wherever he may be...). Let us begin with the origins of these entities:

“Q: Are you etheric beings? Or are you possessed of a fleshy physical body such as mine?”

“A: I am etheric. I do not have a fleshy body like yours, bounded by flesh. But it is possible for me to make my being visible to your optics by certain changes in its vibratory rate.

“Q: This would mean then, that you are normally invisible to us?”

“A: Yes.” (from page 35).

“Q: As you are an etheric being, are other etheric beings visible to you?”

"A: Yes, although not exactly in terms of optical vision as you know it" (from page 36).

"Q: When you become visible to our eyes, does the person who sees you know that you are a converted etheric (being)?"

"A: Not as a rule. The conversion can be made so completely that a physical person encountering us thinks that we, too, are physical". (from page 41).

In the event that an etheric/astral entity were not converted to physical density, Trevor asked whether it would be possible or not to see the entity by psychic means:

"Q: If one were to develop astral vision, or the psychic eye, would he be able to see the ships?"

"A: No. Not unless the vibratory rate of the ship were converted to the vibratory range of astral vision. Remember, the etheric vibratory rate is higher than the astral. Very few physical humans have some perception of the etheric, but they are not normal people as you know them and for the most part dwell in very secluded places. As a general rule, perception of the etheric through vision cannot be accomplished except through the will of the etheric, converting etheric substance to a vibratory level where it is physically visible" (from page 47).

Now, after ascertaining the kind of entity he was in communication with, Trevor wanted a confirmation of his ideas on the Shaver Mystery (i.e., the existence of an ancient race and abandoned contaminated advanced machines existing underground in vast caverns linked by tunnels), here is what he got:

"Q: A question that has greatly disturbed me, concerns the presence of an underground race on this planet. I would appreciate any information you can give me.

"A: At the core of your planet, there dwells a greatly degenerated race, an astral race, which is degenerate not so much in science, but in every moral respect as you know and understand it. They are capable of space flight within the astral regions around the Earth but are earthbound. They are the forces of Eranus, whom you call Satan. They emerge at the South Pole. On your surface, they have allies who are without morals and without mercy. I give you this information so that you may be aware of their existence. I enjoin you to forever close any researches into this astral activity, in the interests



Figure 10. Bigfoot-like creature sighted near Pittsburgh, Pennsylvania in October 1973. Creature is carrying a glowing orb, while a UFO shines a spotlight on the area.

of your own safety. Be on your guard always, be careful and vigilant." (from page 52).

Briefly, the late Richard Shaver characterized the underground entities he claimed lived underground (among the machines above-indicated) as divided into two constantly warring groups: the "Tero" (or good guys) and the "Dero" (or bad guys).

However, the entity Ashtar added another meaningful dimension to the issue that is the following:

"Q: These astrals from the Earth's core, I take it, are the deros of legend?"

"A: No. The Dero are no longer con-

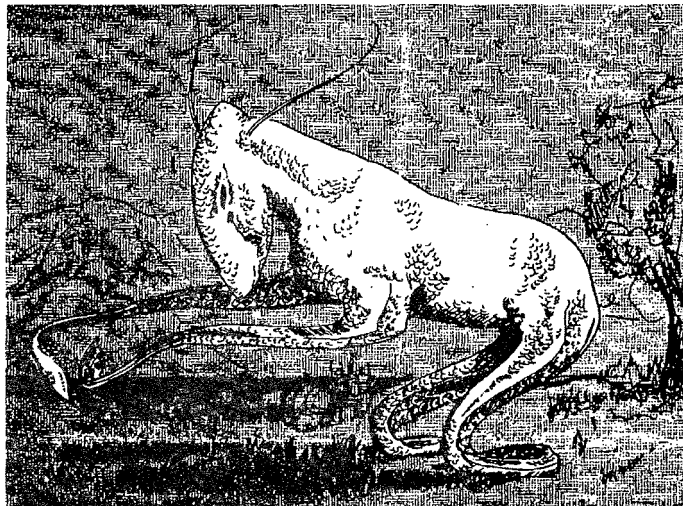


Figure 11. Creature sighted near Baid Mountain, Tacoma Washington area. It was surrounded by a greenish glow. Obviously this animal could not function in a terrestrial environment.

fined in the caves of legend and story, but are reincarnated upon your surface. Many of your eminent scientists, driving forward with the perfection of ever more prodigious blast forces, are reincarnated deros. Because of their prior lives as cannibals and degenerate beings they are prone to exert themselves for destructive ends, since they easily fall under the astral influence." (from pages 57/58).

The Dero—be they underground or overground incarnated among us—are but pawns in a war that has pitted the etherians against the astral; for the control of humankind, this conflict is waged as follows:

"Q: What form does this war take? Is it a clashing of space ships in combat?"

"A: It is not a matching of violences, as you suggest, but a battle for the control of earthly minds. Our purpose is to overcome the destructive influence, the physically violent influence which the dark ones seem to exert over mankind. Our purpose is to nullify the astral influence by restraining beings devoted to destruction and physical violence. The dark ones seek to relegate the whole world to the darkness wherein they dwell and have power, and thereby increase their influence further. Our task, as decreed by the Heavenly Father, is to nullify, overpower and banish the work of the dark ones by good influences upon humanity. This is the true nature of the battle, rather than spacecraft versus spacecraft." (from pages 74/75).

The "spaceships" mentioned above are possessed by both sides in this war and serve both as a means of transportation and to bridge the "dimensional gap" (the best term I found to define it) separating the etheric, astral and physical realms, allowing the materialization of both kinds of entities at war in our physical sphere of existence.

In order to distinguish, as is customary in war, the enemy from the friend by the apparent shape of its craft, Trevor asked Ashtar how he would be able to separate one from the other as he was then engaged in developing his own sensibility to photograph the "critters" that have made him so famous. He received broad and general rules that must NOT be construed as the "ultimate explanation":

"Q: Is there any broad general method by which the etheric or friendly craft can be distinguished from the astral machines from the center of the Earth?"

"A: As a general rule, you may conclude that all cigar-shaped craft are potentially hostile to your people. These are the craft from the center of the Earth which have carried out and are carrying out hostile acts... Our craft are for the most part heel-shaped or disc-shaped. This is a rule-of-the-thumb, as the term goes, for distinguishing between them.

"Q: Are there any basic rules, even if they are broad rules, by which the various craft can be identified when they appear solely as light manifestations?

"A: There is a broad general rule which may apply for the purpose of identification. It is not exact but it is a 'rule of thumb' as you call it. The true interplanetary craft, the ventilas of our forces will appear to your optics with a manifestation of colored lights, usually green, red and white. They will sometimes appear constantly red and green, other times they will appear to be flashing. Those of the satanic forces seldom exhibit color, but come with white or bluish-white manifestation. This should aid you in selecting the ships with which you might have contact." (from pages 80/81).

The reason why the above explanations are not to be taken as the final word in the matter is that Trevor himself was deceived when attempting to contact an etheric craft by an astral spaceship disguising as such; he was saved by a forcefield the entity Ashtar forewarned he would be placing at the meeting place. Trevor later inquired on the quality of the astral craft themselves:

"Q: Are these craft comparable to Atlantean machines?

"A: They are almost identical with those craft. They are, of course, made of a material that is akin to, but of a higher vibratory form than your own matter. They are, therefore, not normally visible to your optics." (from page 80).

While etherian spaceships could move—if the need arose—at very high rates of speed, their astral counterparts were not so lucky:

"Q: Are the dark ones' craft propelled by the same propulsion system as yours?

"A: No. They use an electromagnetic drive on some of them. Others are propelled by a jet and hydraulic system. That their propulsion systems are less than ours is indicated by the fact that they have a maximum speed of 3500 mph in your measure. The different propulsion systems give rise to the

different light manifestations, although these are a rule of the thumb and not an arbitrary and fixed method of identifying the different types. They also have discoidal machines similar to our ventilas." (from page 90).

And now we are approaching the most critical parts in this installment, the crew of the astral craft:

"Q: By whom are these (astral) craft manned?

"A: They have a variety of beings in these craft. They may be human type entities in the astral body, in every way similar to yourself. They may be elementals, subhuman slaves of the astrals or they may be astral monsters of a proportion and type likely to fill you with terror were you to contemplate them. In your measurement, many of them are gigantic, and horrible to behold. The craft may be manned by any or all of these



Figure 12. Humanoids sighted at Branch Hill, near Loveland, Ohio, March 1955. Center entity carries a sparkling rod.

creatures". (from pages 83/84).

I do not think that the similarity of the above text with the illustrations of figures 10, 11, & 12 may be "mere coincidence" as the story line in any movie goes...

The astrals could, sometimes—under conditions not fully elucidated by the entity Ashtar—manifest to one person while another individual to the side of the viewer may see nothing at all:

"A: The silver spheres frequently reported, especially those associated with reports of little green men as occupants, are a type of craft launched from the carriers of the dark ones. There are several facts which govern the sightings of these things. In the first place, a combination of atmospheric conditions and the physical condition of the viewer may render them visible. In the case of monstrosities seen by only one person, this may be the case. Certain physical conditions in the viewer

may render them visible to one man when they will not be seen by another man beside him. Hence the common term hallucination. But the man who sees these monstrosities is seeing something very real, and while it can be said the experience is a subjective one in a sense, it is also a view into the unseen worlds which surround and interpenetrate your own. Great confusion is caused upon your surface by the varying descriptions of little green men, little men in various types of clothing and so forth. Believe me, it would take many books to fully describe the many types of elementals who dwell in the invisible realms." (from page 91).

This is a point of no return for my own hypothesis on how the mounds were built. Here I must add that Trevor was told that these astral entities often produced (at the time he published the book, 1958, nowadays the situation may have changed—though to which amount, of both quality and quantity, is not known...) generalized failures in different kinds of planes to produce the death of anyone they deemed valuable that was traveling within (never minding the murder of everyone else) to have him/her kidnapped when this shocked entity was forced to leave the physical body.

Trevor was told that "[the astrals] are in need of pilots for their craft..." and on his own researched in the media to find out many reports of failed planes which crew and passengers died... There is no proof—this

term as expressed in its judicial conception—to link directly what the entity Ashtar said about the origins and motivations of the inimical craft with the events researched in the media, but Trevor found proof of aggressions from saucer-shaped craft against planes and their crews in the manner Ashtar indicated and they were produced by people who had never before heard of what Trevor had experienced as telepathic communication. These unacquainted people went so far as to sign affidavits stating how the events unfolded, which are fully reproduced in **They Live In The Sky**.

The need for discarnate human pilots could be to man astral craft travelling to other places:

"Q: How far from the surface of Earth, in our measure, do the astral regions extend?

"A: 125,000 miles. Within them, the astral beings are confined. At certain times of

the year, travel to the Moon is possible to the astrals when the astral shells of the two bodies overlap. When these two shells separate, however, any entities on the Moon are cut off from the Earth until the next time the astral shells overlap. No physical or astral entity can go beyond the Earth-Moon system." (from page 62).

"Q: How far above our surface may (the dark forces) penetrate, and can physical man penetrate this far? That is, will man ever be able, in physical form to penetrate this far?"

"A: The limit of their altitude attainment is 125,000 miles. Physical man is also limited to this extension. In the upper portions of it, however, man in the physical form will exist only "with extreme difficulty and after years of training and development. As previously described, when the moon's astral envelope or aura overlaps with that of the Earth, commerce is possible. At times of contact, the astral entities from the core of Shan (Ashtar's name for Earth) travel to the Moon" (from pages 77/78).

Or, also to perform other tasks whose final outcome we may not be aware of, one such thing could be the obtaining of "astral matter" or "astralised physical matter" that is very difficult or impossible to produce. Trevor once focused his attention on the subject of why water disappeared after astral craft were sighted and obtained a curious answer:

"Q: On occasions elementals have been seen stealing water, or water has disappeared in large amounts following saucer sightings. Why is this?"

"A: Water is a valued commodity in the center of the Earth where they dwell. One of the reasons they come to your surface is to steal water, which they do from lakes, rivers, reservoirs and tanks as convenience dictates." (from page 100).

Now, considering existing underground watercourses, why would the astrals go upwards and open themselves to an attack by their foes just to get some surface water? And extending the question a little, why would they travel to the Moon, further endangering themselves? What do the moon and surface water have in common that can be valuable for these entities?

The answer is, on both instances, that they are bathed with sunlight!

It is my contention that there must be a subtle substance (excuse the term, I am unable to formulate the idea in a better fashion) or substances, as conditions at the Moon and the Earth's surface are "more than somewhat" different, that they desperately need to accomplish some goal. It could be

this goal is either mere survival, the production of astral machinery to keep their fight against their foes going, or some other goal we are not aware of.

PART III: PERSONAL HYPOTHESES

Considering how everything has been exposed — in a simplified manner for reasons of space, yet going straight into the core of the matter — so far, my personal hypothesis as to the origins of the mounds and the dynamic manifestations of assorted entities related to them, is the following:

☛ In the past the astral entities could manifest, together with their technology, much more and in a greater expanse of time than they do nowadays.

☛ The mounds were created by them, using their technology, in alliance with the now-vanished race of the "Alligewi" or "Talligewi" or "Si-te-cah". Notice, please, that I do not offer any explanation as to the origins of this allied race for lack of any source on the subject.

☛ The system of mounds, distributed all over the world, served to the astrals for furthering their conquest of humankind's mind by offering them a means of becoming materialized a longer time, and as most of the mounds are constructed close to a watercourse bathed by sunlight, also served as "raw-matter source" for the astrals. The kinds of materials collected and their ultimate destination, I do not know.

☛ As the Earth moved through space, crossing through different fields than those of the time the mound-system was built, the energies collected by the constructs upon the planetary surface diminished, both in quality and quantity as the purposes of the astrals go.

☛ This change also produced the slow disappearance of the allied race. "Alligewi" or whatever you want to call them, and this involved a kind of "cannibalism" — both on the part of the astrals and the surviving physical allies — that may have extracted from the dying/dead entities any usable energy remaining in their bodies (I know this sounds gruesome, but I decided to incorporate the angle for the sake of completeness) either using technology or just eating the remains.

☛ Petroglyphs can be special navigational symbols, assorted messages or magical signs designed to furthering the capabilities of the mound-system or to "patching-up" some of its deficiencies as it became worse operationally speaking. The kind of petroglyphs mentioned by Jim Brandon exist also on moun-

tains of Argentina (the most notorious is the group of Talampaya, province of La Rioja; covering a large stone wall...), this making me assume they are a global "beacon-system" made to last. An assumption that was furthered when I went back to some old magazines dealing with strange phenomena and unearthed articles on similar glyphs carved (by unknown people with unknown means) upon a wall of quartzite at Pusharo, Brazil. For an illustration of these still-undeciphered glyphs see **Lost Cities & Ancient Mysteries of South America** by David Hatcher Childress (Adventures Unlimited Press, Stelle, Illinois)

Apart from not getting involved, as Ashtar recommended, is there any way to prevent the astrals from intruding into our lives? To this question by Trevor, the answer was:

"A: Let me give you this earnest injunction: Cast out all fear, for fear is the lubricant, the food and the vehicle of the dark forces. Without fear you are truly impregnable, so strive for this attainment." (from page 157).

What can be the status of this war nowadays, over 35 years after reference (2) was published? I have not the slightest idea, as I am no insider; but if we look all over the world we notice a lot of evil people in power, albeit in a sad state of disorganization. So, Chaos has the upper hand in my opinion...

FINALLY, TO END...

All of this elaborated explanation was needed, in my opinion, to convey my idea of (possibly) why Jim Brandon recalled most copies of his excellent book. I think he must have found and read a copy of (2), making similar assumptions and connections in the subject; deciding later to recall whatever was possible to him... If ever the real Jim Brandon reads this lengthy review, will you please be kind and write Borderland Sciences to state your case?!?!?

BIBLIOGRAPHY

- (1) **The Rebirth of Pan: Hidden Faces of the American Earth Spirit** by Jim Brandon; Firebird Press, 1983.
- (2) **They Live In The Sky!** by Trevor James; New Age Publishing Co., Los Angeles, California, 1958.
- (3) **The Origin of Cells** (or *The Growth and Development of the Atom*) by Betty Zorotovitch; Williams Book Store, 443 W. Sixth St., San Pedro, California.
- (4) **Ancient Monuments of the Mississippi Valley** by E.G. Squier and E.H. Davis, 1848 by The Smithsonian Institution. Reprinted by The Sourcebook Project.

Brenden the Bold: Did He Ever Reach the Americas?

by George A. Agogino
Distinguished Research Professor, Emeritus
Eastern New Mexico University

Brenden the Bold probably lived about 500 A.D. and according to written reports was a brave and seasoned sailor. The question is was he successful in crossing the Atlantic and actually reaching the Americas. According to Brenden's own statements he saw such exotic creatures as giant sheep, Pygmies, sea cats, talking birds, floating giant crystals, smoking mountains, and of course generalized sea monsters. At first this list would make anyone reject that Brenden ever basked on the shore of the New World. However, let's look at this list again. The easiest to understand of these strange objects are the sea cats for we have both fresh water and sea catfish. Almost as easy would be the floating crystals which, of course, would be floating icebergs. The smoking mountains were simply volcanoes. (Feder, Kenneth 1990. p. 72).

The Pygmies could well be Indians. Many Mesoamerican Indians average between four and five feet in height. It would take more imagination to find giant sheep, although we do have large and powerful Rocky Mountain sheep. However, Rocky Mountain sheep are restricted to the west and I doubt Brenden went that far inland. We do have the desert sheep, a similar animal, that lives in arid areas often adjacent to the ocean. If I were to venture a guess, Brenden may have seen a bison molting in the Spring when the Winter hide is falling off in patches. It has all the appearance of a huge sheep, including the horns. Talking birds could be either parrots or magpies both of which mimic animal sounds and human speech. That only leaves sea monsters; even today we have repeated claims that such creatures exist. They could be oar fish, manta rays, whale sharks, or any number of natural sea life. There is much in the sea we are just discovering; the coelacanth and the Mega-Mouth shark for example. One of Brenden's stories has his ship being picked up by a huge whale and carried a considerable distance. Oh well, even monks lie at times.

Brenden's description of icebergs as floating crystals shows that the Irish rarely or never saw these icy islands. This suggests

that he was far from the Irish shore and perhaps in the North Atlantic on one of his several voyages. The reported trip to the Americas was with several other Irish monks seeking a remote and peaceful new land in which to worship and meditate. They were away from Ireland for seven years before returning to their homeland.

Their boat was an elaborate bull boat, animal skins over a wooden framework. I recall that a duplicate of this type of boat recently traveled from Ireland to Mesoamerica. This proves it could be done if the weather remained favorable. If we accept his successful crossing, ocean currents suggest he reached the Azures or one of the numerous islands off Mesoamerica. However, had he reached the actual mainland of Mesoamerica, he would have seen or been directed to one of the classic civilizations existing at that time. Had he visited Teotihuacan, probably larger than any European city of the period, he would have reported its presence. The architecture, culture, and non-Christian religion would not have been neglected. None of the islands off of Mesoamerican had an advanced culture and the natives were small

enough to be consider Pygmies by Europeans.

We may never know if this voyage was actual or imaginary, successful or spurious, or ideal rather than real. No evidence has ever been found to support Brenden's claims. If anything was taken back to Ireland from the Americas, it has been lost in history. I feel sure he could have made this voyage. The question is, did he? Over the centuries, early handwritten books usually done by monks could have additions or paragraphs of importance lost. Not all monks were dedicated in their copying of previous books, which usually needed rewriting each decade. Books of this period were rare and in demand for the few who could read and write. They were usually chained to a pedestal and read by candlelight. I wonder if occasionally pages were removed like what frequently occurs in college libraries. If so, then a reproduction of a missing page would rely on the monks' memory and could be responsible for some unlikely additions.

Feder, Kenneth. (1990). *Frauds, Myths, and Mysteries*. Mountain View, California: Mayfield Publishing Co.

Let Us Introduce Our New Manual Of Shocking Alternative Breakthroughs being ignored, suppressed or denied by establishment authorities!

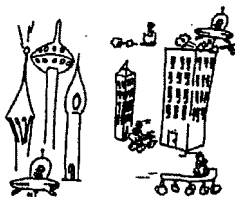
CREATIVE ALTERNATIVES

..... For A Troubled World

by Mel Saunders

Learn about non-chemical therapies and various natural remedies used in other countries with great success. Discover the real facts behind solar, wind, hydrogen and non-conventional energy sources already available to the world. Learn how to adopt healthier and more profitable organic farming & gardening techniques. Study the creative educational methods that could reduce crime, illiteracy and poverty in the U.S. Learn how to research and implement for yourself the many creative alternatives available in health, education, energy and agriculture that are currently ignored, ridiculed or condemned by world policy makers. If you like solutions, read *Creative Alternatives For A Troubled World* because it can furnish you with the research and reference material necessary to create a better life for your entire family.

Let's Creatively Step Into The 21st Century.



To Order: "Creative Alternatives For A Troubled World"

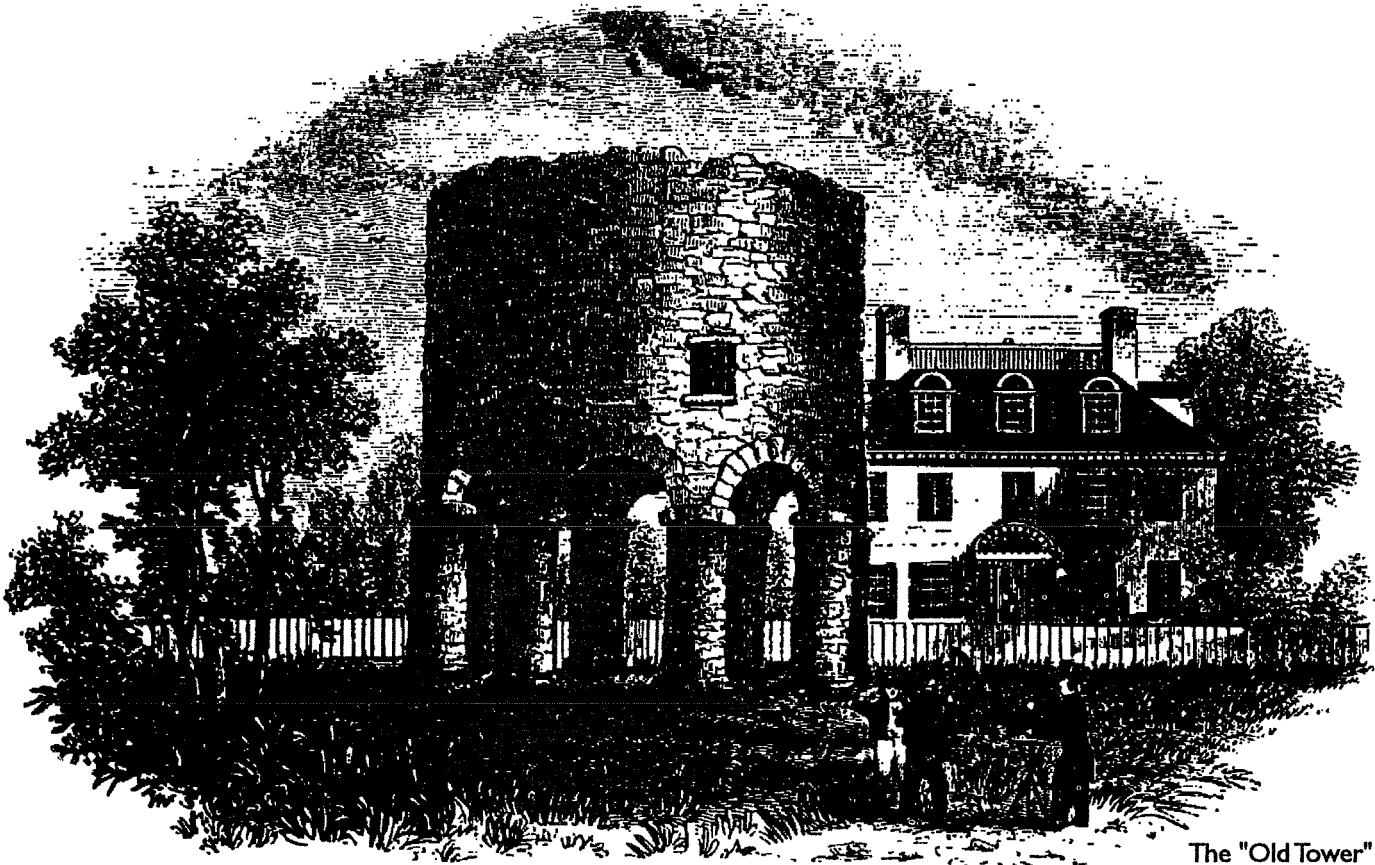
SEND TODAY, BECAUSE IT'S ONLY \$39.95

Now \$29.95

TO: Pyramid Research Center
Box 478
Odenton, MD 21113

Name _____
Street _____
City _____
State _____ Zip _____
(Allow 4 to 6 weeks for delivery)

Creative Alternatives Newsletter (4 issues \$12.00) _____
Sample Newsletter \$3.00 _____
"Creative Alternatives For A Troubled World" @ \$29.95 _____
Postage & Handling @ \$3.50 _____
or First Class @ \$5.50 _____
5% Sales Tax (if applicable) _____
TOTAL ENCLOSED _____



The "Old Tower" at
Newport, Rhode Island

THE ROUND TOWER AT NEWPORT

Michael Theroux

Last September, I had the occasion to visit one of the more interesting anomalies in Newport, Rhode Island. The "Old Round Tower" or windmill (as it is sometimes called), is a large cylindrical structure composed of unhewn stones — common granite, slate, sandstone, and pudding stone — cemented with coarse mortar made of the soil on which the tower stands, and shell lime. Its erection history and tradition are quite obscure, and there is much conjectural debate on its original architects.

The tower rests upon eight round columns, a little more than 3 feet in diameter, and ten feet high from the ground to the spring of the arches. The wall is 3 feet thick and it is about 24 feet high. The external diameter is 23 feet. Early excavations found the soil at its base to be 4 feet deep, lying upon a stratum of hard rock, and the foundation was composed of several rough-hewn spheres of stone, the lower ones about 4 feet in circumference. Apparently, at one time, the whole structure was covered with hard stucco made of coarse sand and shell lime, and was far taller than it stands today.

There has been quite a lot of investigation, with a great deal of speculation concerning this ancient edifice. Our party consisted of Duncan

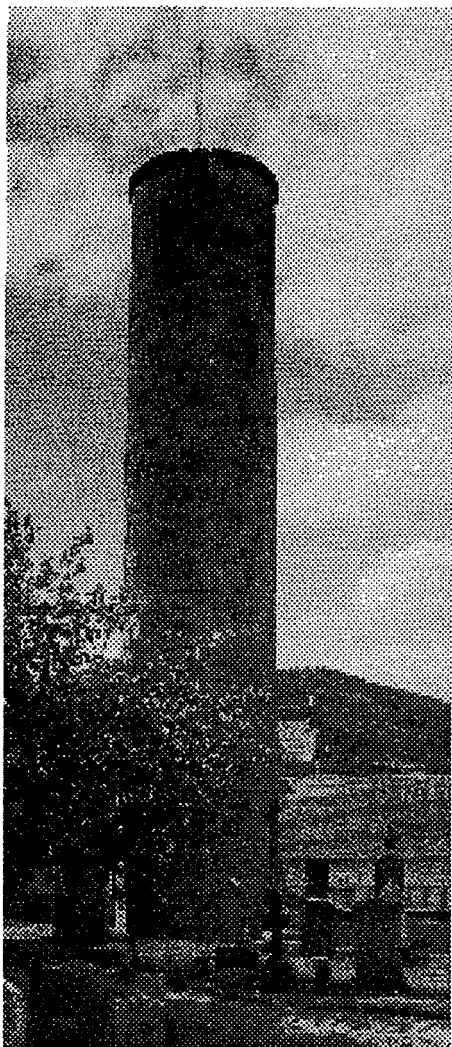
Laurie, Gerry Vassilatos, myself, and John Dawson (member of the SETI project and currently researching the origins of the tower). Through Dawson's research, he was trying to prove that the tower was of Scandinavian origin. Early investigators also favored this hypothesis. In 1837, the Royal Society of Northern Antiquaries of Copenhagen published the result of their ten years' investigations concerning the discovery of America by the Northmen in the tenth century. The old "mill" at Newport, a curious rock inscription at Dighton, in Massachusetts, and the discovery of skeletons, evidently of a race different from the Indians, elicited the attention of inquirers, as subjects in some way connected with those early discoveries. They noted that the architecture of the tower was in the ante-Gothic style, which was common in the north and west of Europe from the eighth to the twelfth century. "The circular form, the low columns, their thickness in proportion to their distance from each other, and the entire want of ornament, all point out this epoch."¹ The fact that the navigators of Sweden, Norway, and Iceland visited and explored the American coast during the tenth and eleventh centuries would appear to be too well

attested to for further speculation here. But, the origins of the tower need additional consideration.

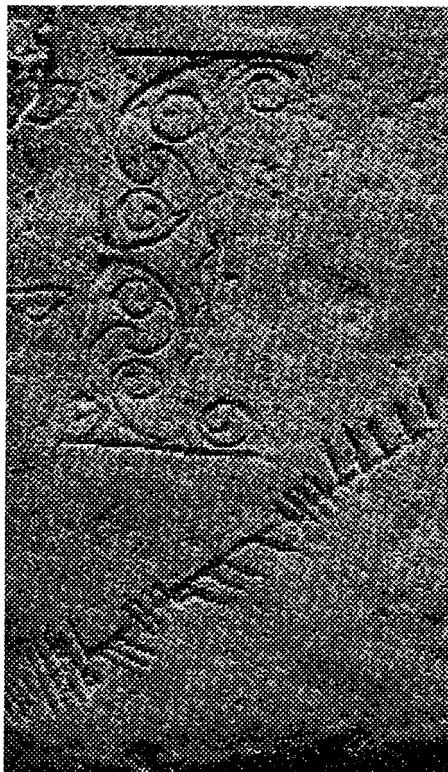
One of the high points of Dawson's investigations was the discovery of two unusual inscriptions on the structure itself. One of the marks, found on the outside of the tower, appeared to be a series of slashes and/or lines. The other mark, found on the inside, was quite unmistakably an incised ring-cross. According to Dawson, the marking on the outside was runic, and Scandinavian in origin. My immediate interpretation of the inscription (and of the tower in general) was that it was of Celtic ancestry, resembling more closely the Ogham script than anything runic. Ogham is an ancient system of writing, found all over the British Isles on rocks and structures, and is composed of vertical slashes above and below a horizontal line. The second, more easily discernible figure, was the incised ring-cross on the inside of the structure. Dawson's note on this was that it was either a surveying mark or possibly a Templar's cross!! A simple incised ring-cross looks like this: ⊕. These have been found inscribed on stones and ancient buildings in all parts of the British Isles and most accompany Ogham in-

scriptions. These pairs range in date from the early fifth to late eleventh century.

Upon examination of the tower itself, both Gerry Vassilatos and myself initially felt it to be of Celtic origin. The preponderance of round towers still extant across the Scottish and Irish countryside (some eighty still standing in Ireland alone) would attest to this, their construction having analogous characteristics. Antiquarians are now generally agreed that these round towers are of Christian origin, always built as adjuncts to churches, and were erected after "the marauding Danes had shown the harassed ecclesiastics the need of some immediate, strong, and easily defended, place of refuge for themselves, and of safety for the sacred objects which the Northmen constantly sought."² The conclusion has been drawn that the round towers began to be erected at the end of the ninth and beginning of the tenth century — at the temporary loss of the Danish grip upon Ireland. The first reference in the annals to a round tower is in the year 950. Upon this and other related



**The round tower at Abernethy
(Perth and Kinross)**



**Rock inscribed with Ogham
characters**

facts is built the now accepted theory of the Danish time origin of the round towers, as places of ecclesiastical refuge. Evidently the connection of the round tower at Newport to the Northmen has some validity albeit somewhat twisted in its conception.

It is my opinion that the emphasis placed on researching the tower's alleged Scandinavian origins, in recent and past history, without consideration for simple facts, is typical of the continuing biases displayed by scientific orthodoxy. Although this research attempted to change the written history of the discovery of the American continent, (I recently heard that collaboration with Danish scientists proved the assertions false) it followed no rational investigative procedures, and proved nothing but its tendentiousness. I submit — does one need credentials and government funding to be foolish? You decide.

REFERENCES

1. **The Pictorial Field-Book of The Revolution.** Benson J. Lossing. pp. 64-66, Harper, 1852.
2. **The Story of the Irish Race.** Seumas MacManus. pp. 301-305. Devin-Adair, 1921.
3. **Archaic Rock Inscriptions.** A. Reader. 1891, reprinted 1992, Borderland Sciences.
4. **Arthur's Britain.** Leslie Alcock. pp. 205-263. Penguin Press, 1971.
5. **Picts.** Anna Ritchie. Edinburgh, HMSO, 1989.

STRANGE MAGAZINE

FRINGE SCIENTISTS

- Wilhelm Reich
- Nikola Tesla
- Jack Parsons
- Jacques Bergler

AERIAL ANOMALIES

- UFO Occupants
- Falls from the Sky
- Ancient Astronauts
- Cargo Cults

FORTĒANA

- Cryptozoology
- Underground Mysteries
- Kirlian Photography
- Time Slips



INCREDIBLE ODDITIES

- The Crystal Skulls
- The Vinland Map
- Archaeanomalies
- Crop Circles

WEIRD SCIENCE

- Death Rays
- Free Energy
- Electrotherapy
- Plasma Effects

For five years **STRANGE MAGAZINE** has been bringing its readers an open-minded look at the mysterious world of **Strange Phenomena**. Each bi-annual 64-page issue contains fascinating first person strange encounters, in-depth investigations, documented reports, and fascinating articles by top-notch investigators of the unexplained including John A. Keel, Loren Coleman, Mark Chorvinsky, Jerome Clark, & Vincent H. Gaddis.

Send check or money order to:
STRANGE MAGAZINE:

PO Box 2246, Rockville, MD 20847

- 4 Issue subscription—\$17.95 (\$22.95 Foreign)
- Sample Issue \$5.95

Please charge my: VISA Mastercard exp. date

NAME _____ card number

ADDRESS _____

CITY _____ STATE _____ ZIP _____

LAKHOVSKY MWO GALLERY!!!

These photos were taken in August 1993 by Hessel Hoornveld of the Netherlands while visiting with Serge Lakhovsky, the son of Georges Lakhovsky, at the family home in Paris. Our sincere appreciation to both Hessel and Serge for their time and help in securing these photos, adding substantially to our record of Georges Lakhovsky's tremendous researches.

While Serge did not allow examination of the Multiple Wave Oscillator circuitry he did allow the photographs and operated the unit for Hessel. There was absolutely no arcing between the rings, but there was a corona discharge off of the outer ring.

The photo at right is of a painting of Georges Lakhovsky, who was a tremendous inventor and scientist, whose work covered many areas of endeavor.

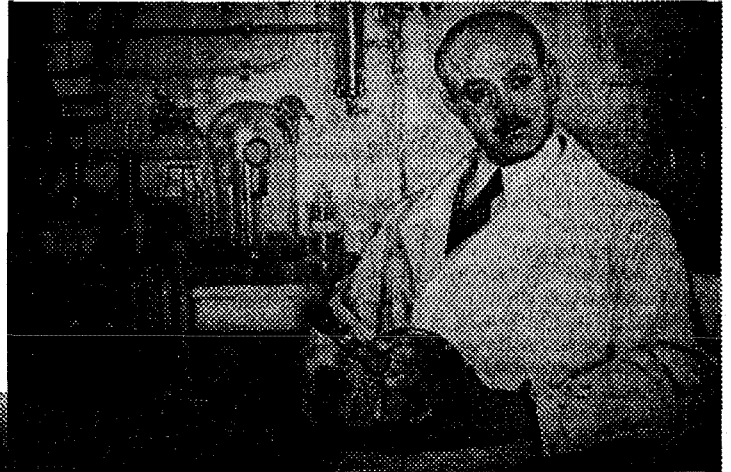
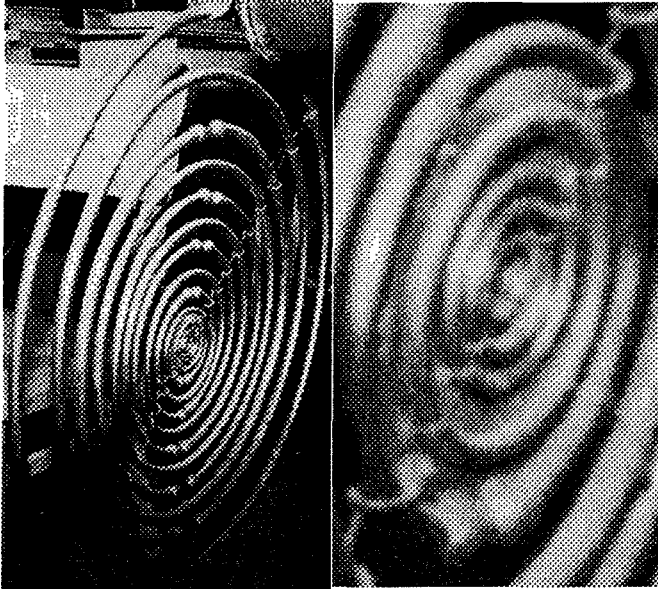
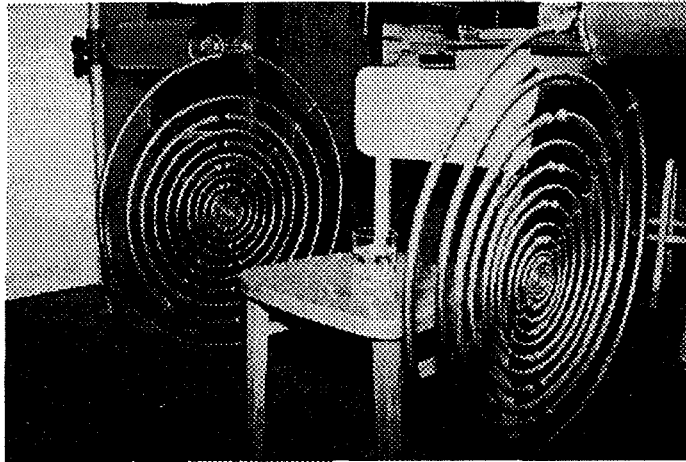
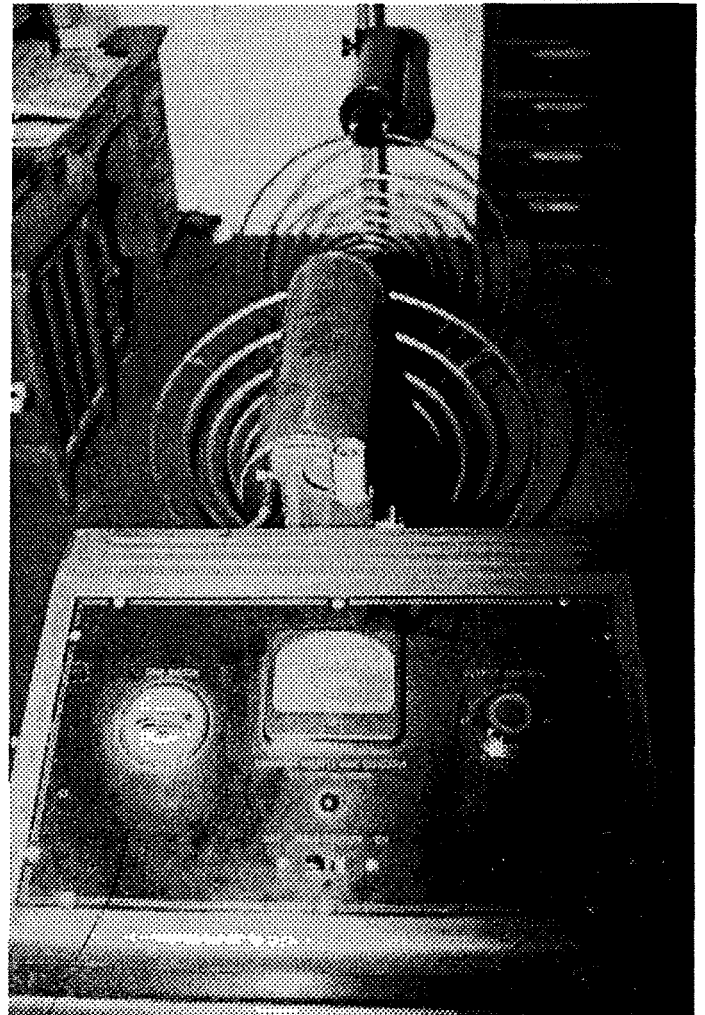


Photo directly below shows top view of Lakhovsky's own MWO. The original photos are in color and show that the rings of the antennas are of different colored metals. It appears that the outer ring is brass (B), the 2nd ring looks like steel/silver (S), the 3rd ring copper (C), and then as follows: 4-B, 5-S, 6-C, 7-B, 8-S, 9-C, 10-B, 11-C, 12-S, 13-B. These identifications are only a guess and are derived from an examination of the photos with a printer's manigifier. TJB.



The above sequence of three scans of the same photo shows a 14 ring arrangement used on this unit. Hessel counted 13 rings being tuned from middle C to high C, one octave of tones. Hessel measured the rings with a tuner and discerned the C tuning. The 9 outer rings are suspended with silk string, the 5 inner rings (above right) are mounted on a mica plate. The 14th ring was not counted as it is continuous, unlike the other 13, thus not being part of the tonal-oscillating circuit, but possibly acting as an anchor for the antenna supports and/or as an added dimension to the electrical circuit.



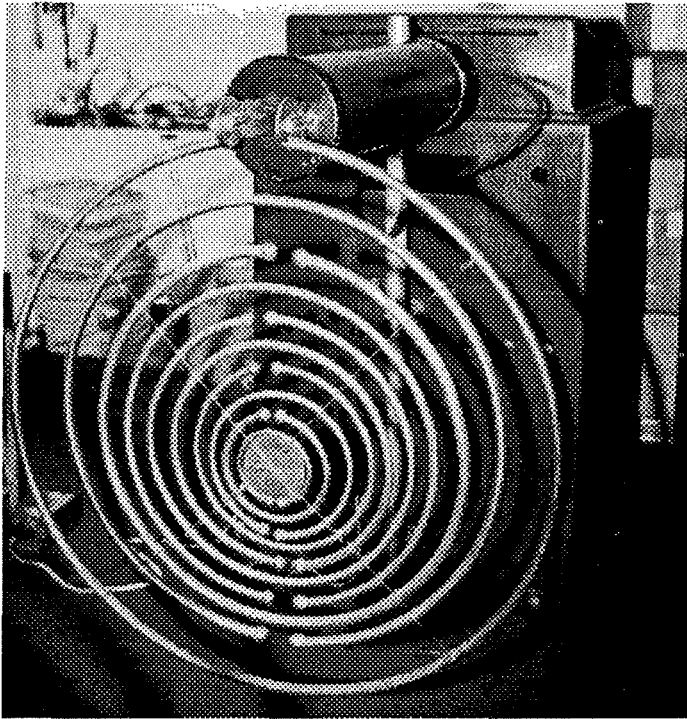
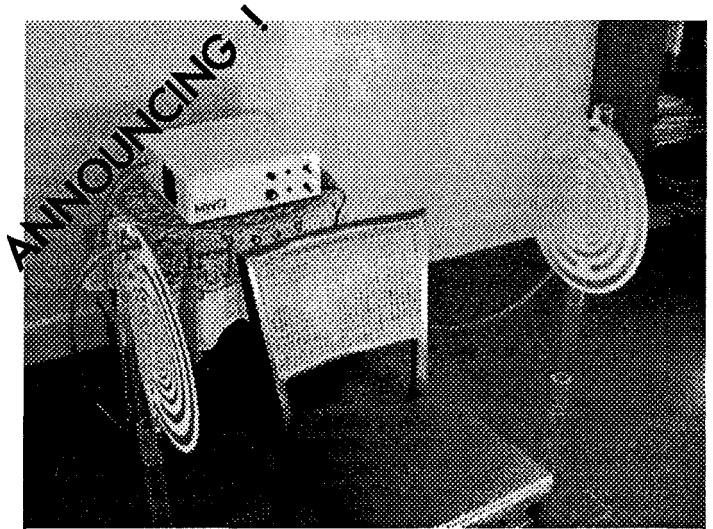


Photo showing front view of Lakhovsky Multiple Wave Oscillator antenna. The suspension in air provides for a tonal ringing. Not all questions have been answered in our researches, but we have come a long way in the last 8 years. Hessel is very active in Europe with MWO research, which includes aiding professional medical researchers. Information on his researches will be published in future issues of this magazine.

SPECIAL LATE BREAKING LAKHOVSKY NEWS!!!!

Longtime Borderlander John Cjeka has provided us with a video of a Popular Science newsreel from the early 1940's by Paramount Pictures which shows a Lakhovsky MWO in action. The subject sits facing one antenna with the other to her back and a nurse holds a curious rod-like device. The handle in her hand is wooden and the rod and coil are a single piece of metal. As the nurse waves the rod in front of the subject 8" to 10" sparks fly to it from the antenna. Then the rod is waved about the body and then the coil is placed on the stomach and a small knob is facing the antenna. Next a violet ray-type glass tube coil with handle is placed on the subject. It is not connected, but is energized by the ambient field of the MWO. This provides us the detail of the report of Ron Crossley wherein (Jan-Feb 1991 JBR) he reported that when Georges Lakhovsky demonstrated the unit to him there was a rod or device used along with it. Will wonders never cease? And for a while everybody thought the MWO was just a big old spark box (some of them are, but not the real ones). We are working to get video clips imported into future issues so that researchers can work to reproduce these curious accoutrements.



THE MOST AUTHENTIC LAKHOVSKY-STYLE MULTIPLE WAVE OSCILLATOR SINCE "THE ORIGINAL"

As a result of an 8 year research project, Lakhovsky's work is finally re-emerging in its original form. This new MWO is based on Lakhovsky's 1934 patent and eye-witness accounts of an original Lakhovsky MWO still operating in Paris, France. It is the closest replica of his device made available to the public in 50 years.

MWO Features:

Golden-Ratio Antennas:

Both antennas are silver plated and designed on the mathematics of the Golden Mean to ensure a deep interaction with the subtler forces of nature.

Gentle Action:

The high frequency electrostatic field oscillating between the two antennas is penetrating, yet very gentle, even to the most sensitive. In a dark room, a 1" to 2" violet colored corona discharge is seen coming off the outside ring of both antennas. There are no hard sparking discharges between the inner rings of the antenna, as seen in other MWOs.

Refined Circuit:

The circuit of this MWO is based on extensive research into Lakhovsky's writings, patents and working models. It operates by the technique and method that Lakhovsky intended for his own equipment. Also, it is capable of continuous operation without overheating.

Quiet Running:

The spark-gaps are fully enclosed to muffle their snapping sound and the cooling fan runs on its own power supply to ensure quiet operation.

Safe Operation:

The control panel is equipped with separate green and red indicator lights to alert the user when the power is on and when the high-voltage output is present. Each unit also comes with a completely illustrated 16 page User's Manual that fully explains how to setup and operate the MWO.

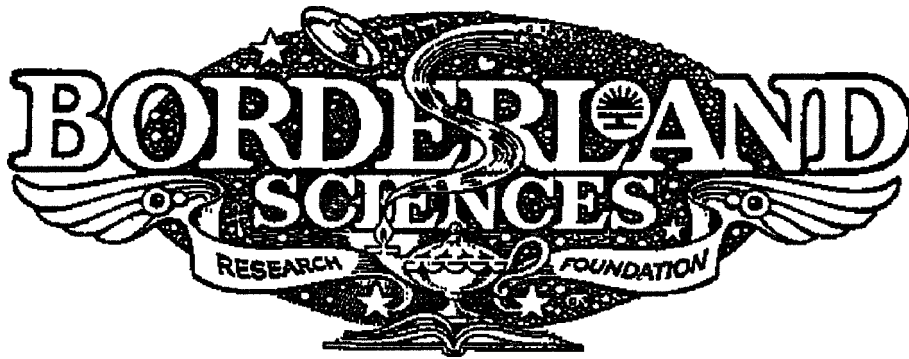
Beautiful Case:

Unlike most other MWOs built into briefcases, this MWO is fully enclosed in its own beautifully designed white acrylic case with all of the controls situated on the front panel.

These units are being made available to amateur experimenters who are interested in exploring the effects of low power, wide spectrum, high frequency, electrostatic fields.

Retail price ... \$1795.00 plus \$30 shipping and handling, from:

Big Sky Research — Tijeras, New Mexico
505-281-7554 (Please call before ordering)



THE B.S.R.F. BULLETIN BOARD



LETTERS

LAKHOVSKY'S LIGHTNING

I read the article that discusses how lightning strikes the earth in the second quarter issue, 1993. It was very interesting. It is very likely that Lakhovsky has made an important discovery in earth geology that the mainstream scientific community is not aware of.

The phenomenon that is discussed in the article can be explained in terms of the density of positive and negative ions that are found in the crystalline materials that make up in the various soils and rocks that are found in the earth.

Clay soils, for instance, have a net positive charge because they are rich in positive ions (called cations). Sand is crushed or powdered silica. This mineral should hold a net negative charge because it is deficient in cations, but it has an excess negative oxygen ions (called anions). This analysis is consistent with the theory that was stated in the article.

Lakhovsky's theory explains why many observers have noticed that lightning strikes with the

greatest frequency on mountains that are rich in ore bearing bodies, particularly iron ores such as magnetite. Metallic ores ionize into cations, and they concentrate very high levels of positive charge in their deposits, while the surrounding rock, typically silica, holds a lesser positive charge or else holds a net negative charge. According to the theory in your journal, the transition zone between these areas of opposite intrinsic electrical polarity would attract the lightning. Who knows, this might be a new way of locating ore bodies!

Independent confirmation of this theory of the charge bias of different rocks and soils is supported by recent research that was sponsored by the USGS at the University of Colorado. I do not have written copies of these studies, but I spoke with the lead scientist at Boulder who conducted them and he summarized them for me. If there is any published literature on this subject it would be under the general headings of "Adsorption of acid waters by underground soils." The findings of these studies are summarized with the following:

These studies were not under-

taken to determine the charge potential of rocks and soils, but of the ability of different underground materials to adsorb irrigation water from agricultural run-offs. The acid based nitrate and phosphate fertilizers that are used on these cultivated lands give this type of water a strong positive charge and low PH), this due to the presence of the hydrogen ion, which is the measure of acidity.

The purpose of the studies was to determine what types of soils could be used to adsorb acid waters, and how to incorporate these into agricultural technologies so that the acidic run off waters could be neutralized. The researchers discovered that clay soils, which hold a positive charge because of their excess numbers of cations, will not adsorb acid waters, but instead allow them to pass through to lower levels in the water table. This could be predicted, as the positive hydrogen ions in the acid would be repelled by the positive ions in the clay. If the acid waters drained into a silica deposit such as a gravel-sand mixture (alluvium) they were neutralized. This indicates that the negatively charged silicates were attracted and held by the positively charged hydrogen ions in the acids. This too is consistent with the theory.

Robert Crane
Excelsior, Minnesota

BAIGORRI: THE RAIN WIZARD

Thanks for a thoroughly interesting issue of "Borderlands". My offering was most artfully set out; you have a very clever staff indeed.

I found the article on Juan Baigorri, the Argentine rain-maker, to be especially provocative. If you recall in my book, I conclude that lightning results when net electric charge is injected into our worldly plane along that added dimension of space that I am so fond of talking about. In that case, meteorology is decidedly a borderland science even if its practitioners fail to realize

I suspect that under normal circumstances ambient clouds stimu-

late the injection of this charge, although other factors no doubt weigh heavily in the process as well. As I perceive it, when ions of one sign are injected into the clouds they are taken up by air molecules and/or water droplets and cause the affected air to expand because of the mutual repulsion of like charges. The charged air would cool as a result of this expansion, and it would also become less dense and so tend to rise—even as we observe clouds in a thunderhead rising to very great altitude. If the injection of net charge continues the electric energy would increase until a lighting stroke results. On the other hand, if ions of both signs should be injected then cloud droplets taking up opposite charges would be mutually attracted; on touching they would coalesce to form larger droplets which would fall as precipitation.

As vague as this picture may be it gives a clue to what Baigorri's machine actually did. Namely, in some manner it opened the "pores of space" and allowed electric charge to leak through into our world plane. Since his machine actually caused clouds to form where there were none before one might conclude that the electric charge is injected either as ionized water molecules or even directly as charged droplets of water. Presumably his apparatus stimulated this injection even as prevailing clouds would do under normal circumstances.

Under the heading "The First Experiments" on Page 8 we read that the prevailing dry and warm North wind changed to a cool East wind some 8.5 hours after his device was activated. I would trace this cooling to that selfsame expansion of the air which resulted from the injection of net charge. The change in wind direction might have been in response to consequent changes in pressure directly, but it also seems possible that the electrically charged air was actually driven along a different direction by electric fields generated in the process.

Presumably his machine contained a radio transmitter, but certainly the radiated frequency was not the only factor involved. For note that he actually had two circuits, "A" and "B", one of which promoted cyclonic winds and the other rain (page 11). Each circuit was housed in its own trunk as we see in the photograph on page 10. This might suggest that a pattern of modulation played an important part. In those days a programmed modulation pattern would probably have been produced with a motor-driven arrangement of variable capacitors and inductors, along with sundry gears and timing wheels, etc. In that case more would have been involved in changing modes than merely throwing a switch, for example, to change frequency; this extra complexity may have been the reason why completely separate units were required for the two purposes.

If the effect of circuit "B" was to cause electrically charged water vapor to be injected into the atmosphere then one is tempted to conclude that circuit "A" caused the pores of space to open in such a way as to eject atmospheric air locally from our worldly plane. Then the air around this "sink" would circulate in the same manner as water circulates around the drain in a bathtub. Since the normal motion of winds is horizontal one might expect the circulation pattern to develop around a typically vertical axis even if the sink itself did not actually extend along a vertical direction (although for all one knows such a sink might indeed be linear in form). One sees the picture of a funnel cloud forming in his mind's

eye, and he concludes that a tornado is more than a mere whirlwind if it is generated in this fashion. There would then be a genuine bizarre origin for the weird effects often associated with these violent storms.

One can't help but wonder how Mr. Baigorri happened upon these remarkable machines, but I, for one, doubt that he derived them by any kind of reasoning process. According to the report he was a gifted water dowser, and therefore he was more than normally sensitive to ethereal influences. In that case it seems more likely that the designs were a "gift of insight", so to speak, and he himself may not have understood how they actually worked. This conclusion is supported by the fact that he declined to reveal the principle of their operation as required in a patent disclosure. Namely, he could hardly explain what he did not understand.

Yours very truly,
Richard Petersen
Phoenix, Arizona

CIBOLA CONTROVERSY

I wanted to respond to Richard Peterson's and your comments on my letter in *Borderlands*, 4th Qtr. Issue, page 44.

I am enclosing a reference documenting the idea in my letter that the "7 cities of Cibola" were not actually seven cities, but rather a

ANNOUNCING!!!

The BSRF Table of Contents
the complete listing of published articles in:

Round Robin 1945-1959
Journal of Borderland Research 1959-1992
Borderlands 1993

Also available in electronic versions:
BSRF_TOC.wri & BSRF_TOC.txt on disc for \$10.00
(specify: 5 1/4 or 3 1/2, HD, IBM only)
Printed copy 40 pages, stapled \$6.95
add \$2 P&H, Californians add 7 1/4% sales tax
Borderlands, Box 429,
Garberville, California, U.S.A.

reflection of an old Spanish symbol for gold, "7," as a place or places where gold was to be found — from page 28, Sept. 1993 issue of Treasure Magazine, Yucaipa, California.

I don't resonate with Peterson's proposal that fourth-dimensional explanations are to be used for scientific enigmas. I still feel that the ether/aura concept addresses the full range of theoretic questions.

I may be different from many of your writers in that I have no doubt, personally, about the reality of psychic telepathy and UFOs, having witnessed them to my satisfaction. The concept of a universal ether, i.e., of matter and space both being structured etherically, with matter structured of magnetically-energized etheronic particles that are contiguous with the ether of space, is a rational basis for all psychism.

Purported UFO contactees have reported that the aliens conveyed to them that in space flight, the craft's atomic particles "dissoci-

ate" and are "reconstituted" on arrival at the distant cosmic site. Again the ether/aura theory accommodates easily to this version. The etherons constituting the craft's atoms would, in an ether model, of course be in constant, very-strong, magnetic resonance with each other; this is how the craft would retain its structural integrity. If the craft were placed in an intense magnetic energy-beam of the etheronic (not the electronic) type, and if the outside energy field were powerful enough, the craft's structural etherons would then begin to resonate not merely with each other, but also now partly with the external energy source (without breaking their very-strong atomic resonances). The craft then could be attracted, in an energetic/quantum mode, toward the distant energy source.

Regarding the extra-dimensional approach to difficult anomalies, I can't see what it has to offer. Present electronic/particle theory doesn't make much sense to me for natural phenomena (just ask a geophysicist to explain the various atmospheric phenomena associated with strong volcanic eruptions.) To superimpose on it a cascade of further hypotheses concerning conceptually-irreducible extra dimensions to make it fit strange phenomena makes even less sense to me.

I'd like to comment on another of Peterson's lines of theory, namely the idea (Borderlands, 4th Qtr Issue, page 1) that the ancient theme of the "beard of Venus" actually refers to a series of much-smaller celestial objects, the largest one striking Venus and causing the beard, and a couple others striking the earth, accounting for the anxiety of ancient astronomers regarding the heavens and especially Venus.

My book Twilight of the Gods covers the same ground and arrives at quite a different conclusion: that Velikovsky was basically right, but made a crucial error in his chronology of the cometary-Venus cataclysm. Velikovsky ascribed all the ancient fiery-cataclysm accounts to a 1500 BC time frame, when the Exodus of the Israelites from Egypt occurred. Academic scholars were able to prove from Stonehenge's alignments that Venus was in its present orbit before that, in 2500 BC. From this they were able (with a sigh of relief) to throw all Velikovsky's findings into oblivion. In my book, which has been mostly ignored, I relate the cataclysm and most of the accounts to an earlier time frame of 11,500 BC, the event now being shrouded by geologic vagaries and unappreciated occultification, the latter having to do with Atlantis and other now-legendary lost oceanic

TESLA BBS

◎ NETWORKING

◎ RESEARCH

Electromagnetics

Wireless Power

Transmutation

Biomagnetics

◎ TEXT FILES

Nikola Tesla

Walter Russell

Tesla Turbine

Free Energy/Zero Point

Swiss ML Converter

Keely Vibratory Physics

Cold Fusion

Gravity Experiments

◎ PROGRAM FILES

Engineering

Math

CAD Tesla Coil Design

(719) 486-2775 Data

2400 Baud (8,N,1)

NUMBER EIGHT 1994

Steamshovel Press

...supplying...
to the...
SUTTE...
Lava Hanson on J.
Edgar Hoover
Sean Martin: UFOs at
Area 51 & Moonbase
Jim Martin:
Quigley, Clinton,
Straight, & Welch
Stephanie Cronman:
SECRETSTONE
Secret Service Files
on Mae Brussell
Philip K. Dick & The
Illuminati
A. J. Weberman: JFK
& Hunt the Tramp

Conspiracy, As Usual!

Does the US have bases on the moon serviced by space shuttle launches from Area 51? What is the connection between Philip K. Dick and the Illuminati? Does Bill Clinton acknowledge a conspiracy theorist as his mentor? Was J. Edgar Hoover caught on film in the act of *flagrante delicto*? Did more than one set of tramps get arrested after the JFK assassination? If the new *Steamshovel* doesn't answer these questions, at least it asks them. As always, *Steamshovel Press* presents new challenges to accepted wisdom and consensus views. Available for \$4 plus \$1 postage from: *Steamshovel Press*, 5927 Kingsbury, St. Louis, MO 63112.

Not available in bookstores where the conspiracy prevails.

The new issue of *Steamshovel Press* has arrived!
Steamshovel Press Number Eight,
\$4 plus \$1 postage (\$5+\$1 foreign)
Subscribe! Four issues, mailed first class, \$20

Name _____ Address _____ City _____ State _____ Zip _____
Begin with issue # _____ (No indication here means subscription begins with #8)

Announcing the Official...
BORDERLANDS
Bulletin Board Service

Featuring

100s of articles from the BSRF Archives
Current BSRF Catalog
**Complete Back Issue Listing of
Borderlands 1945 to Present**

Plus

Up-to-date Cryptography Archives
Multi-Language Menus, and more!

Data line - (707) 826-1124

Voice: (707) 826-0165

Sysop Michael Theroux

Or Write: c/o P.O. Box 442, Bayside, California, USA

lands. Mr. Peterson has the latest book, and the floor, but anyone interested in this area really should look up all the material and make up their own minds. The two books to look into (besides Peterson's) would be Velikovsky's Worlds in Collision and my Twilight of the Gods.

Lastly, to address your point about multiple-layering of some coal seams, and how this could be accounted for, including by my model of world-scale eruptions, cosmic winds, and smothered magmatic combustion, I am forced to put forth my unorthodox belief that Earth's geologic past has been strongly influenced by the same cosmic UFO technology that also played an important role in the appearance of modern Cro-Magnon man and the stories about lost oceanic lands. This differs from Peterson, who discounts Velikovsky's and my Venus model, because a large body like Venus would be totally unlike any comets observed now, which have very small masses. Unlike me, he refuses to seriously entertain an alien technology "ancient gods" hypoth-

ably going back millions of years, even to the time of the disappearance of the dinosaurs. I think they orchestrated recurrent cataclysms of the eruptive/world darkened/subsequent-ice-age type. To appreciate the rationale for this idea, one would have to look into my book. The comparatively recent event that ancient writers referred to as the twilight of the gods could have well been only one of a number of other similar cataclysms, well before modern man appeared on the scene.

Sincerely,
Michael Anteski
Pen name, MICHAEL BARAN
Brockton, Massachusetts

P.S.: I fail to appreciate your putting such faith in deNiza's account of Cibola, especially since he later recanted it. Why couldn't he have invented that part of the story because he thought the Spanish Court wouldn't have believed that much gold existed in a dusty Indian settlement? Also: The question of "apparently massless" comets may be more complex than Mr. Peterson has envisioned with his 4th dimen-



Adventures Unlimited

FRONTIERS IN:

TRAVEL • ARCHAEOLOGY • SCIENCE & HISTORY

Call • Write • Fax
For our Free Catalog

Inside...

Ancient Wisdom, Lost Cities, Anti-Gravity, Tesla Technology, Secret Societies, Free-Energy Science, Exotic Travel... and more!

303 Main Street • Post Office Box 74
Kempton, Illinois 60946-0074
815 253-6390 • Fax 815 253 6300

sion model. Egon Bach in California will soon have a book out presenting his findings from years of study of "long-lived ball lightnings," which he has christened "gorgons," and the origins of which he attributes to remote volcanic ejecta. Some of these upper-atmospheric objects are very bright, others are dark "black gorgons." My own belief is that their essential nature is resonating etheric energy particles. Perhaps dark gorgons are analogous to "massless" comets. Bach makes a persuasive case that many space objects called UFOs (especially those with fallouts of sublimating material such as "angel hair" are actually these volcanic balls. (The word "comet" comes from the Greek word for "hair.") Research like this is sure to affect UFOlogy as well as complex questions like ancient comets.

Again regarding deNiza's Cibola story, there is a possibly-analogous type of story from the old West. In the 1970s when reading the lost-treasure magazines popular at the time, I kept coming across one recurrent theme: someone, usually a prospector, would make a very rich discovery and then not be able to relocate it. Typically the discoverer would go to town for supplies, return, "swear" he was in the same spot, but the find was not there. This story was so common it seemed the rule rather than the exception. Then too, in the paranormal literature stories exist about people undergoing strange, seemingly

anachronistic experiences, like visitors to Versailles being temporarily transported to a scene resembling the 18th century.

My theoretic approach to such stories is etheric rather than 4th dimensional. Certain observations from the Bermuda Triangle and UFOlogy suggest that bodies and their surroundings can exist at different energy-settings, that one particle-resonance setting can co-exist alongside the other, and that occasionally one energy setting can undergo a temporary change to the other, with an apparent change in the experiential reality mode. This model could be especially possible for the deNiza/lost treasure stories if one invokes a possible role played by the occultly-oriented ether-technologists mentioned above. (They adopted the occult role back in prehistory because it was karmically necessary for humans and other beings on Earth to determine their own karma apart from "foreign influences." One's eternal karma has precedence over everything.)

IT AIN'T JUST ME!!!!

Regarding your thoughts — IS IT ME OR WHAT??? — as I understand the writings of the Bible and other good writings that the Committee for whatever reason chose not to use has led me to believe that when YAHWEH gave the Earth to Man he reserved the heavens and heavenly bodies for himself.

As you probably know Zecharia Sitchin has written several interesting books on early earth history, etc. They are published by Avon Press.

John A. Lautzenheizer
Ridgeway, Ohio

* In regard to "IS IT ME OR WHAT???" I have had the same feeling about the same topic. I am glad there is someone else who is asking the same questions. Not only did the USA Martian probe go dead but allegedly some years ago the Russian Mars Moon Probe Project was warned their spacecraft would be destroyed. The craft before it went dead detected a shadow of a

15 kilometer object. There is also a good Japanese astronomical picture of a 25 mile wide disk flying past the Earth's moon. Aliens may be constructing vast underground cities in artificial realities inside the earth with the view towards converting the Earth to a military base. Could Mars be a crucial link such as serving as the terminal of a Einstein-Roson Bridge or interstellar transportation wormhole in space? Such a bridge might be very sensitive to nuclear weapons. Perhaps our probes made the aliens nervous

Samuel P. Faile
Cincinnati, Ohio

* About the faile Mars Mission — I cannot believe you (of all people) did not read "Genesis Revisited by Zecharia Sitchin.

The answers seem to be all there & fully documented with the latest scientific findings.

And then, of course, there are "The Earth Chronicles" a must read. A shock perhaps, but a mystery no longer!

Good stuff for Borderlands. Contact Bear & Company, P.O. Drawer 2860, Santa Fe, New Mexico to get the books.

Sincerely,
Kay Hetrick
Absecon, New Jersey

* I found your comments in the last issue about what's going on in space intriguing. My guess is that quite a lot may be going on. The people at NASA are talented, but they are human, and they do make mistakes. However, the recent Mars Observer disappearance (or silence) could be more than another NASA foul-up.

If you have seen the program broadcast on PBS called "Hoagland's Mars", you may be open to the idea that something is, or was, going on there. The images (photographed in a prior NASA mission) of the huge face, pyramidal structure and wall, along with the intricate mathematical concepts they portray are not easily dismissed.

The Mars Observer mission was

not to be televised live, as is usually the case. Was NASA concerned about creating a panic if high resolution pictures of structures on Mars suddenly appeared? Why was NASA so recalcitrant about making a commitment to rephotograph this intriguing area on Mars?

Some say that NASA may have "turned off" the Mars Observer on purpose, due to concern about what would be found there. I believe that it is more likely that 1) the craft malfunctioned on its own, or 2) something out there didn't want us to see the area in detail, or thought we weren't ready to see it.

NASA has video, taken by one of our spacecrafts showing beams of light which look like 'Star Trek' laser zaps. The NASA scientist's explanation for it was that it only showed tricks of light, such as from meteors, produced from rocked bursts from the NASA craft. Another scientist (not NASA) stated that he didn't think it could be explained as anything except UFO's fighting each other. If it was anything like that, I would like to think that the positive forces will triumph over the negative forces. I don't think it's anything we need to worry about anyway.

NASA also has photographs, taken from the 1966 Orbiter mission, which show shadows about 70 feet tall in the form of obelisks. They are called the "Blair Cuspids." This is on the dark side of the moon, so we could not see them from here.

Whether any of these speculations are true is still very much open for discussion. However, if there are more stars in the sky than all the grains of sand on all the beaches in the world, how naive to think that we are alone. And since we are a relatively young planet, which has gone from the Wright brothers to the moon in less than 100 years, is it not also naive to think that civilizations millions of years ahead of us would not have space travel?

The possibilities are endless. The whole thing reads like a good science fiction novel. It's just that we're in the middle of it, playing our parts, and we don't always see

the big picture. Publications such as *Borderlands* are helping us to expand our horizons and explore these infinite possibilities. I look forward to the next issue!

I enjoyed the story on the cattle mutilations. I recommend a book with an intriguing explanation of the alien abduction phenomenon called "Visitors From Within" by Lyssa Royal.
Cynthia Clinkscales
Anacortes, Washington

* Greetings! "Is It Me or What???" There sure is a speed up as the gulf between the masses & those who love in the their search of truth ever widens. As the consciousness expands the snake rears its head and becomes known ... It must exert itself to control the mass mind. Ha Ha ... How futile!
May the Blessings Be
Ken Rebane
Seattle, Washington

I appreciate all of your thoughts. It is hard to find a Person who does not question one aspect of the official story we are given, be it social, economic or scientific (or all of the above—like me). Some of my views on space were published in this magazine in May/June 1984 under the title of "The Possibility of Lunar Habitation". I hope at some point to expand upon this theme as vast amounts of information exist to indicate that space is actively populated, and has been for a long time, but us folks apparently aren't allowed—not till we truly awaken *en masse*.

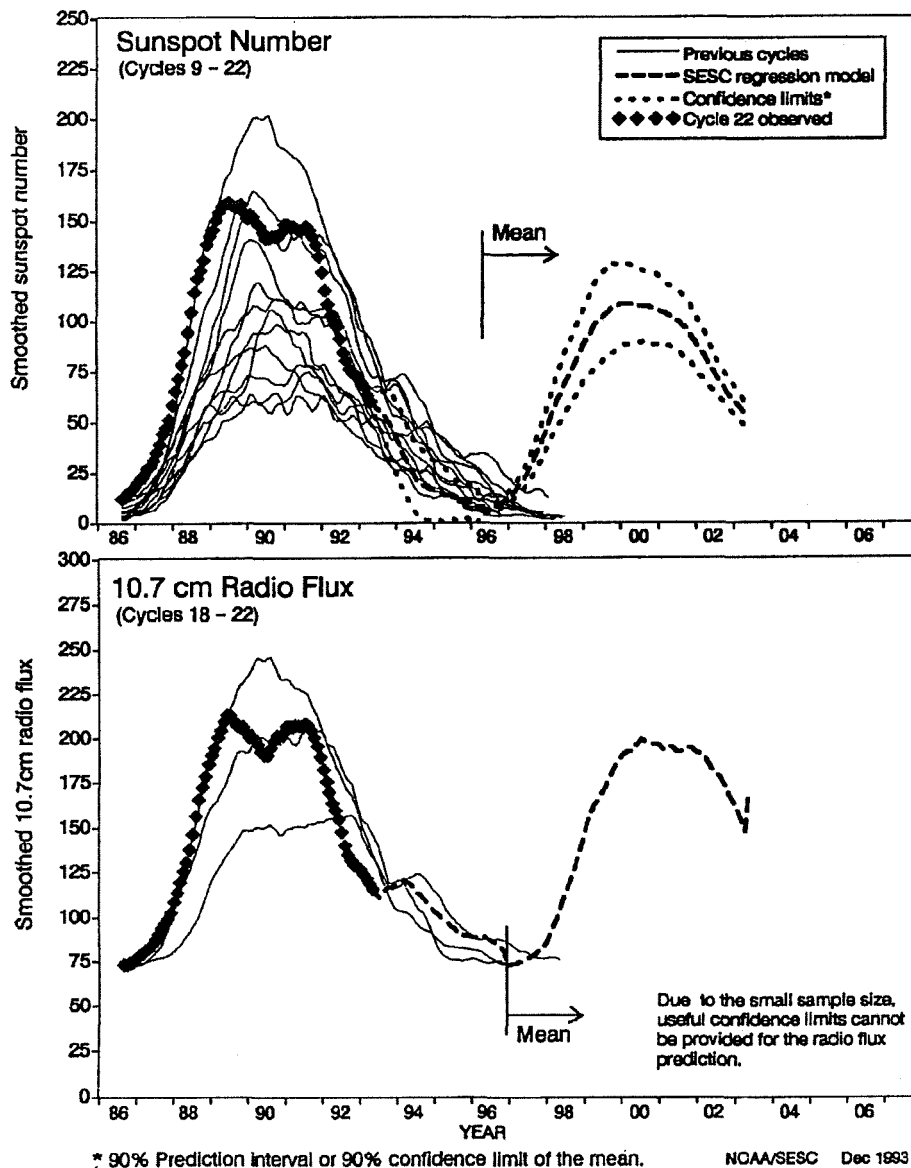
And yes, I have read some of Sitchin—*The Twelfth Planet, Stairway to Heaven*, etc. Interesting stuff, great reading and very well documented, but still missing major components, especially the understanding of the metamorphosis of human awareness through various epochs and civilizations. I don't buy the 12th planet theory, with a vast elliptical orbit, as a purely physical reality, though Sitchin has some interesting circumstantial evidence. In projective geometry the elliptical shape is merely the sphere projected. The projection, by definition, moves in another dimension, but in the case of Sitchin's "planet" it could cross our dimension at regular intervals. Plausible to some, but also he interprets all ancient prayers in terms of animated, sentient carcasses in tincans flinging around the globe and through space. No metaphysical comprehension whatsoever,

from what I read. And who buys the "latest scientific findings"? Not me, as long as those scientific findings are ignorant of such well documented objective realities as the dramatic and profound Kolisko/Kollerstrom metallic crystallization experiments wherein it is shown that there is direct link between the planets and the metals linked to them in ancient lore, thus providing direct evidence of a geocentric space for the living entities on our planet. (See *Metal Power* by Alison Davidson, and *The Metal-Planet Relationship* by Nick Kollerstrom, both pub'd by BSRF). And as long as those scientific findings ignore the very force which animates us all they will always miss the essential point. Sitchin seems to go along with standard geological dating as a backdrop to his presentation, but there are serious problems

with that mode of ageing the earth.

And finally, I disagree with Sitchin on his interpretation of the flood. He claims it comes from *within* the planet based on the Old Testament line "...all the fountains of the great deep burst open, and the sluices of the heavens were opened..." Sitchin neglects the "and" in the sentence, and is apparently unaware of evidence-based arguments in favor of the *Canopy Theory* which place the "great deep" between earth and the heavens. Depth is relative ... it could be up or down, and I feel the evidence of flood and ice age indicate that the water came from the heavens, that they were "waters above the firmament". (See *Those Astounding Ice Ages* by Dolph Earl Hooker, pub'd by BSRF, and *Waters Above The Firmament* by Isaac Newton Vail, pub'd by Stonehenge Viewpoint,

Solar Cycle 22 Compared to Previous Cycles



both available from BSRF). How else can you explain that the ocean levels were once TWO MILES below what they are today? I doubt they filled from within the earth, an especially problematic theory for those who believe in such bizarre concepts as molten cores.... Anyway, we can carry this argument on in the future....

WHERE'S THE ALIENS?

Enjoy your magazine. I would love to buy "Cosmic Pulse of Life" by Constable but I want to know why the evidence described about the presence of UFO alien or space people is not published in the media that we read all the time — before I spend almost a third of a hundred dollars.

**Bruce Williams
Hornell, New York**

Trevor's work has been appearing at intervals in this publication since the late 1950's, and will continue to do so into the future. We cover a lot of ground and cannot bring up every concept in each issue, or even once a year. There is a lot of hokum about "gray aliens" floating around the information networks these days. Believe what you like, we base our work on objectification of facts, whilst being aware of the all important subjective factor. I recommend you read the "Gray Aliens Bite The Dust" article in the 2nd Quarter 93 Borderlands. We live in an amazing, life-filled universe with manifold facets of endeavor, and focusing on entities that may be the constructions of mattiodal human varmint with vast technology at their beck and call does not appear to be a forward path. Not to say that there aren't craft traversing the universe with creatures aboard—sure there is that possibility, and it has never been denied here. It's just hard to buy the 'picture' that has been sold to the UFO crowd over the last 8 years by "ex"-intelligence agents, and that picture is the "grays make deal with government and are allowed to proceed with alien abduction experiments and cattle mutilations" story that causes disbelievers like me to be ostracized. Great cover-up, but flimsy on reasoning. You have some alternative facts? Send them in and we'll publish them. After you read **Cosmic Pulse**, if you don't think it was worth it, send it back with a lucid, point-by-point explanation of your disagreements and I'll refund your money. **Cosmic Pulse** deals with many aspects of "alien" contact, far beyond the carcass-in-a-tincan concepts so cherished today. Trevor discov-

ered and photographed (using special methodologies described in the book) exobiological entities in the atmosphere, responsible for "radar ghosts" and other UFO mysteries, and he deals with interpenetration from other planes of manifestation, much more so than the simplistic idea of creatures from space, though you will find nothing to contradict such concepts in the book.

SOLAR HARNESS

Will you be following up on Owens Barker's Solar Harness invention as mentioned in Volume XLIX #4 1993 Pg 40? It seems one could be independent from external power sources for one's home needs in a rural setting. Is this anything like Dennis Lee's freon filled Solar Device (Lee is currently in prison allegedly due to his invention and its application) which would render one's abode free from the power companies?

**David LeVasseur
Fair Oaks, California**

The Solar Harness was mentioned in Peter Lindemann's review of the International Tesla Society conference. If we get any useful info on it we'll pass it along. I doubt it is anything like Dennis Lee's scam because it appears that he is in jail for separating people from their cash, though we are aware of his adept protestations to the contrary. As we have stated in the past, there is some merit to the solar-assisted heat pump, but judging from the experience of ourselves and others that we believe that Mr. Lee is incapable of delivering on his promises.

People often misunderstand what "Borderland" means. While we often have articles on "gadgets" like the MWO and such it is to put such things into perspective and/or to correct historical errors. The borderlands we speak of are in the realm from where physical sense leaves off and we need to operate on the higher functions of awareness, the imaginations, the intuition, and of course optimal operation of the physical frame. We seek not some free energy gadget to allow people to suffer their slavery differently and at less cost, but to awaken the human spirit to the living universe around us, to break the shackles of the modern world view and allow true advancement out of our present predicament. Remember, some day you will shed your clay suit and no device can help you at that point. Might as well get used to the idea now!

Judged by its Cover!

A listing of books, videos, magazines, etc, received for review ... full reviews of selected titles may show up in future issues depending on available time, interest and surging cosmic forces... Here we generally just list 'em and judge 'em by their covers...

* **A Short Course in Permanent Magnet Materials** by William A. Cassidy from SJJ Publishing Company, P.O. Box 152, Hanna, Indiana, phone 219-324-9678. ISBN 1-882637-34-8, \$59.95 + \$3.50 shipping. Looks like an excellent handbook for those using permanent magnets in any variety of research.

* **Five Dimensional Man and the New Cosmic Civilisation** by Brian St. Clair Corcoran from The School of Objective Education, P.O. Box 35460, Browns Bay, Auckland, New Zealand, ISBN 0-473-01976-0. This one looks very interesting, a bit of math and a bit of reliance on some scientific finding that do not present the whole picture (like present theories of light), but I felt comfortable with some of the sections read. Certainly a profound statement. Includes a bit of math & equation. We have an extra copy for anyone who would like to do a serious review.

* **Aghora II: Kundalini** by Robert E. Svoboda from Brotherhood of Life, 110 Dartmouth, SE, Albuquerque, New Mexico, 87106. ISBN 0-914732-31-5, \$18.95. Great cover! and more: The first book in this series **Aghora, At The Left Hand of God** was given to me about 10 years ago and I found it a fascinating insight into the world of the "graveyard tantrics" of India. The book focused on Aghora Master Vimalandanda and his religious methodology. He worshiped the Great Mother, but his attitude towards real women left me wondering if he missed the essential point, however, it was an important book and an introduction to a never before seen (in the West) sect. This second book appears far more in detail and well illustrated and I look forward to reading as I always appreciate the insights of other people's spiritual paths — even if I don't adhere to them myself.

* **Bridging Science and Spirit**, *Common Elements in David Bohm's Physics, The Perennial Philosophy and Seth* by Norman Friedman, Living Lake Books, 16625 Redmond Way, Suite M215, Redmond Washington, phone 206-867-9322, ISBN 0-9636470-0-8, \$14.95. Appears to be based on the imaginary realm of subatomic physics and channelling from disembodied entities, two fields of endeavor definitely linked, in my view, and both disconnected from the wonderful world of sensation-based reality within which we actually live. If only the author would have read **Man Or Matter** by Ernst Lehrs or **The Cosmic Pulse of Life** by Trevor Constable first and discovered that to bridge science and spirit one must first understand what they are. The real connection of science and spirit will come through awakening to the life force which animates us all, and then becoming aware of the sensitive forces forming and upbuilding life. Smashing electrical particles at high speeds and basing theories of reality on that is too aberrant for me to consider. Not that subatomic physics and channelling are not realities, they are, but they are a subsensible realm (beneath matter and the senses) and we look to the supersensible (above matter and the senses).

* **Pythagoras and the Quantum World**, by Ben Iverson, Second Edition, from N.A. Brown Co., 11323 N.E. Sandy Blvd, Portland, Oregon. Claims that there is error in every scientific theory and it is based not on the science, but upon the mathematical basis of that science. Certainly a book for the mathematician. Personally, I think that as long as science considers things like colors to be an unreal apparition based on frequency it doesn't matter what math is behind it, but I have heard many good things about Mr. Iverson's work and we hope the interested researcher will pursue his presentations.

* **The Computer Inside You**, *The Existence of UFOs and Psychic Phenomena Easily Understood* by Kurt Johmann, Ph.D., from Vantex Publishing, 7257 N.W. 4th Blvd, Suite 177, Gainesville, Florida, phone 904-335-7147 ISBN 0-9637227-1-9, \$8.95. I've always been rankled at the analogy between digital electronic machines and the incredibly complex human dynamic. There's no such computer inside me, but if you have one, this book might be for you.

* **When Acceptance Is Denial**, A Handbook for People Who Are Confused About Confusion by Gil Eriksen, from Gil Erikson Communications, 399 S.E. 18 Ct., Ft. Lauderdale,

Florida, phone 305-463-0623 ISBN 0-963-8868-7-8, \$12.95. The cover looked too confused so I never got past it!

* **The Only Planet of Choice**, *Essential Briefings from Deep Space* compiled by Phyllis V. Schlemmer & Palden Jenkins from Atrium Publishers, 11270 Clayton Creek Rd, Lower Lake, California, ISBN 1-85860-004-9, \$15.95 More channellings from the disembodied entities for people who are unwilling or unable to take responsibility for their own spiritual advancement and need to rely on the subjective impulses of other humans. Rather, I would suggest they first understand what space is, especially from the viewpoint of projective geometry. As deep space relates to the deep subconscious it is plausible that people search for hope in both. But the answer is right where you are now.

* **The Everyday Meditator**, a Practical Guide by Osho, Charles E. Tuttle Company, P.O. Box 410, Rutland, Vermont, phone 802-773-8930. ISBN 0-8048-1976-9 \$16.95 An assortment of interesting and intriguing meditation techniques with lots of pictures.

* **NEW ENERGY NEWS** — *Monthly Newsletter of the Institute for New Energy*, Vol 1, No. 4, August 1993, P.O. Box 58639, Salt Lake City, Utah, phone 801-583-6232. Lots of news on Cold Fusion, rotating devices and other non-mainstream hard science.

* **UNTAPPED TECHNOLOGY IN REVIEW** — *Surveying New Frontiers In Science And Engineering*, published quarterly by The UTR Press, P.O. Box 5185, Mesa, Arizona, 85211. \$28/yr. This publication is an excellent service and highly recommended to researchers. It takes magazines such as Borderlands, Extraordinary Science, Orgonomic Functionalism, Electric Spacecraft Journal, etc. and abstracts pertinent articles. I was impressed that the editor, Ernst Knoll, and staff have a firm grasp on the borderland fields of endeavor, and impart concise knowledge through understanding the various author's points of view. Also includes full original articles and a Patent Watch section to keep researchers up to date. Good show!

* **WORLD EXPLORER**, Vol 1, No 4, *Special Dinosaur Issue*, from the World Explorers Club, 403 Kempton Street, Kempton, Illinois, phone 815-253-6390. Lots of interesting articles, serious but fun. Even if you only agree with 10% of these concepts that means we definitely have a few strange beasts roaming around, but some of this info is very well

documented. \$25/year includes regular membership in the WEC.

* **FORTUNA RECORDS**, P.O. Box 32016, Tucson, Arizona, has sent us a number of the tapes and CDs that it distributes: **YEARNING & HARMONY** (enjoyable and energizing); **SUMMERLAND** (nice and spacey); **CREATIVITY GENERATOR** (Nice and spacey, a bit electronic sounding, but enjoyable); **HARMONIC BRAINWAVE SYNERGY**; **BHAKTI POINT** (CD & we have no CD player); and, **MOSAIC - Electronic Vignettes** by Richard Burner (CD again). Write Fortuna for a current listing.

* Chet Day, 625 Smith Drive, Metairie, Louisiana, 70005, has sent us books of interest to people who like to keep healthy: **Twenty Rules for Fasting** by Edward E. Purinton; **You're Killing Yourself When You Don't Have To! — A Natural Hygiene Primer** by Chet Day; **How To Live 100 Years or Discourses on the Sober Life**, being the Personal Narrative of Luigi Cornaro (1464-1566 A.D.); **Ideal Health Through Sequential Eating** (*Perfection in Food Combining*) including **Self Mastery Through Attentive Eating** by Dr. Stanley S. Bass, N.D., D.C., Ph.D.; also included were copies of *Health & Beyond*, a monthly newsletter (\$25/yr, or \$1 sample issue) on fasting, proper nutrition and related health subjects. This material has just come in and I look forward to learning from it. Books are \$7.50 each + \$1/each postage.

CONTACTS

* Richard Brooks, P.O. Box 5618, Phoenix, Arizona, 85010, 602-340-0761. Interested in sharing ideas on photon storage & transference.

* Wanted: Person or Persons interested in major publishing venture. Must have capital, wherewithal, experience and motivation. Principals only may contact Tom Brown at 707-986-7211.

EXPLORATIONS IN GRAND CANYON

Here's some pertinent info about the Grand Canyon Cave City.

El Tovar Crystal Canyon is at Mathis Point which is near Grand Canyon Village "Some 42 miles upriver" (as the article says) which also makes it some 42 miles downriver from Lee's Ferry.

Point Hansbrough is the approximate location of Grand Canyon Cave City.

It is probably on Eminence Break Fault, (guessing from my experience with cave-searchings ... caves are "usually" within a few hundred feet of a fault line... I've found 3 caves that way .. & I know of several more on fault lines in my area.)

The cave is not likely in marble (Marble Canyon upriver) or shale (Bright Angel shale downriver).

Bob Nelson

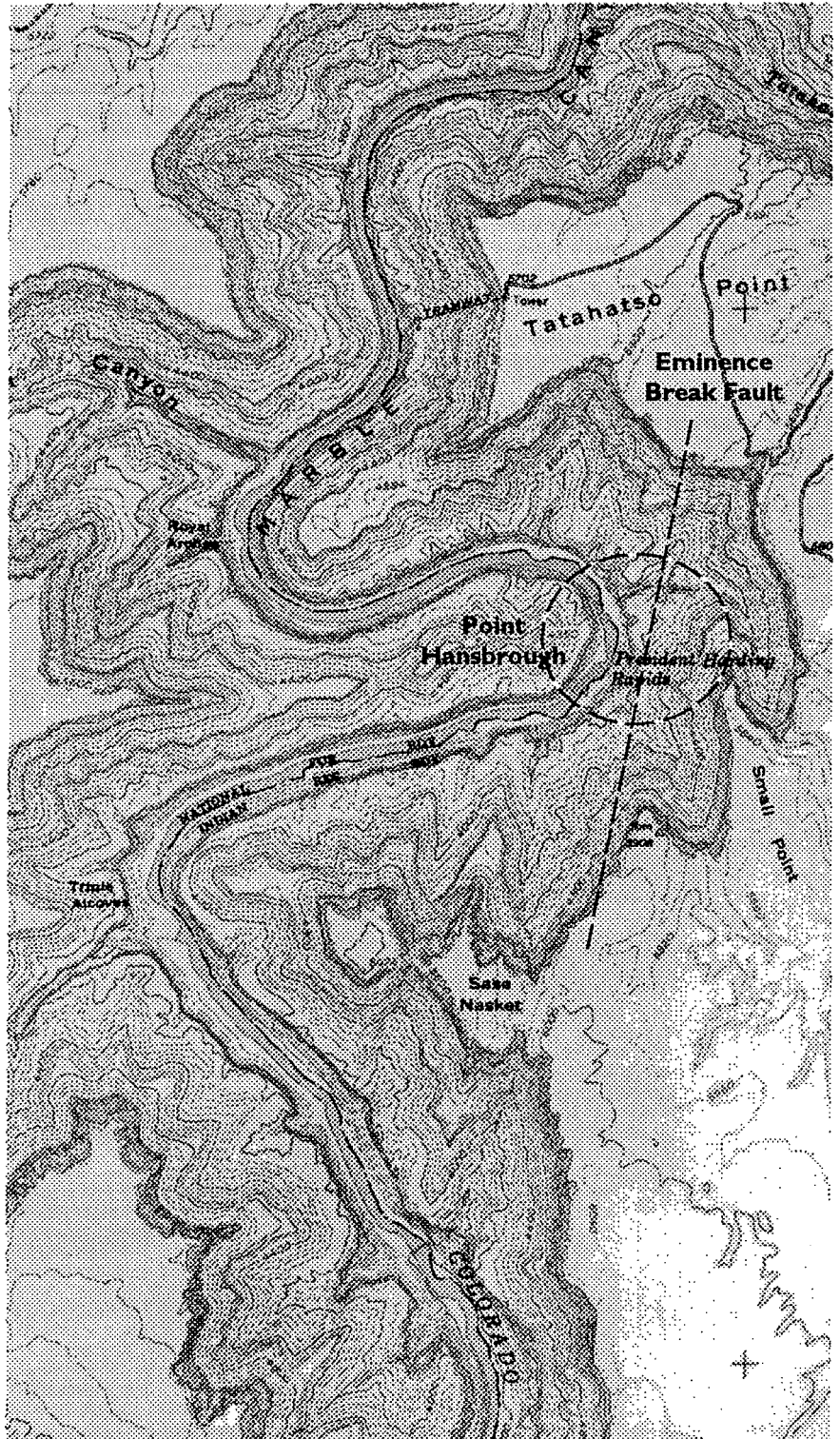
Rex Research

P.O. Box 19250

Jean, Nevada

Many thanks for your insights on this puzzle based on a real newspaper article from **The Phoenix Gazette**, April 5, 1909 which we reprinted in the BORDERLANDS Second Quarter 1993 issue (which we reprinted from David Hatcher Childress' **Lost Cities of North and Central America**, Adventures Unlimited Press, Stelle, Illinois). Allegedly a large cavern was discovered with a myriad of mysterious artifacts appearing to be a mix of oriental and Egyptian. The Smithsonian Institute was claimed in the article to be investigating, but they currently deny any knowledge of the affair.

The photocopy of the map that Bob sent was not in good reproducible condition so I've scanned this section of the Grand Canyon National Park map from the U.S. Geological Survey (1962). The area is at the east end of the Park. The Eminence Break Fault has been drawn in *approximately* and I've circled the area most likely to contain the cave. It was stated in Childress' book that the area is off limits to U.S. Park Service personnel and this only makes sense because the east side of the Colorado River at this section is on the Navajo Indian Reservation. Any intrepid explorers would be wise to gain permission from the Navajo Nation.



Whether or not the cave is in this area, or if it is truly in existence is still open to question, though it certainly would not surprise us. There have been many mysterious artifacts and findings all across the Americas which do not fit

the official story, therefore they are ignored, suppressed or destroyed.

Any anyone who hasn't sent Rex Research \$2 for their catalog is missing out on an excellent information source — do it today!

BORDERLANDS—YOUR GLOBAL TESLA HEADQUARTERS !!

PRODIGAL GENIUS, *The Life of Nikola Tesla*, John J. O'Neill. From his humble beginning in Yugoslavia until the day he died in New York City we see the mind in action of the man called the "father of electricity"; whose inner visions and inventions formed a foundation for the Twentieth Century. Acclaimed biography written by the man of whom Tesla once said, "You understand me better than any man alive." 326pp., paper, #B0254 ... \$9.00

NIKOLA TESLA — *On His Work with Alternating Currents and their Application to Wireless Telegraphy, Telephony, & Transmission of Power*, edited by Leland I. Anderson. Tesla presents a thorough history of his work with alternating currents as applied to wireless transmission, describing experimental methods, techniques, and apparatus used, including: High Frequency Alternators; Experiments with Wireless Telegraphy and Telephony; Mechanical & Electrical Oscillators; Apparatus for Transformation by Condenser Discharges; Colorado Experiments; Theory and Technique of Energy Transmission; Long Island Plant; Arrangements for Receiving; more! #B0213, 237pp, Illustrated, Large paperback ... \$40.00

NIKOLA TESLA — LECTURES, PATENTS, ARTICLES, 1956. Documents taken from the Nikola Tesla Museum and Beograd University. This is one of the finest Tesla reference books available. Many insights into his amazing inventions. #B0214, 850pp, 2 vols., illustrated, spirals ... \$65.00

THE PROBLEM OF INCREASING HUMAN ENERGY, Nikola Tesla, 1900. An article originally printed in *The Century Magazine*. With Special Reference to Harnessing the Sun's Energy. #B0215, 37pp, Illustrated, staples ... \$4.00

EXPERIMENTS with ALTERNATE CURRENTS OF HIGH POTENTIAL & HIGH FREQUENCY, with Appendix: *The Transmission of Electrical Energy Without Wires*, Nikola Tesla, 1900. Includes diagrams and photographs. #B0255, 162pp., hardback ... \$12.95

INVENTIONS, RESEARCHES AND WRITINGS OF NIKOLA TESLA Nikola Tesla, In Four Parts: Polyphase Currents, the Tesla Effects with High Frequency and High Potential Currents, Miscellaneous Inventions, Writings, Early phase motors and Tesla Oscillators. 496pp., hardback, #B0256 ... \$18.50

COMPLETE PATENTS OF NIKOLA TESLA, 112 patents issued to Tesla by the United States, listed chronologically, with detailed drawings. 500pp., hardback, #B0257 ... \$40.00

COLORADO SPRINGS NOTES 1890-1900, Tesla's working diary revealing his mind, enthusiasm and experiments. Numerous illustrations. 439pp., large hardback, #B0258 ... \$44.00

TESLA'S LONGITUDINAL ELECTRICITY, A series of experiments by Eric Dollard on video the reality of Tesla's theories: One-Wire Electrical Transmission System, The Wireless Power Transmission System and the Transmission of Direct Current Through Space. You will see a novel form of electric light which attracts material objects but repels a human hand! You will see a longitudinal broadcast from Borderland Labs to a nearby beach, using the ocean as an antenna. #V0005, 60 min, VHS ... \$19.95

TRANSVERSE & LONGITUDINAL ELECTRIC WAVES video. Eric Dollard demonstrates the reality of longitudinal waves and their application to the natural transmission of electricity. Analog computers (networks of coils and capacitors) are presented opening up an entire new field of electrical researches into the wave forms discovered and used by Tesla in his wireless power transmissions. Experience the physical functions of the various waves via direct measurement. The Longitudinal wave has a velocity greater than the speed of light! The transverse wave is a retarded form of transmission. #V0004, 50 min, VHS ... \$19.95

CONDENSED INTRO TO TESLA TRANSFORMERS Eric P. Dollard. An abstract of the theory and construction techniques of Tesla Transformers, the results of experimental investigations and theoretical considerations. With relevant Tesla patents and CAPACITY by Fritz Lowenstein. #B0018, 8-1/2x11, 70pp, staples ... \$11.00

DIELECTRIC & MAGNETIC DISCHARGES IN ELECTRICAL WINDINGS, Eric P. Dollard. The theory of abrupt electrical oscillations such as those used by Tesla for experimental research. Also contains *ELECTRICAL OSCILLATIONS IN ANTENNAS & INDUCTION COILS* by John Miller, 1919, one of the few articles containing equations useful to the design of Tesla Coils. #B0020, 8-1/2x11, 38pp, staples ... \$7.95

SYMBOLIC REPRESENTATION OF THE GENERALIZED ELECTRIC WAVE Eric P. Dollard, Theory of versor operators and imaginary numbers to represent complex oscillating waves such as those encountered in the researches of Nikola Tesla and everywhere in Nature. Waves flowing backwards in time are explored. #B0080, 8-1/2x11, 86pp, staples ... \$12.95

SYMBOLIC REPRESENTATION OF ALTERNATING ELECTRIC WAVES, Eric P. Dollard. Introduction to the FOUR QUADRANT THEORY of Alternating Current. An in-depth analysis of AC waves providing a more complete understanding of the use of versor operators (degrees of rotation), necessary to the understanding of the rotating magnetic field. The process of the production of electrical energy using the neglected QUADRANTS OF GROWTH is brought about via the use of these operators. #B0079, 8-1/2x11, 53pp, staples ... \$8.65

THEORY OF WIRELESS POWER, Eric P. Dollard. Is wireless power possible? Tesla demonstrated it, but never revealed the secret. This paper contains many essential formulae and supporting data necessary to understand the Transmission of Electrical Energy Without Wires. Illustrated with charts & diagrams. #B0082, 69pp, staples ... \$10.80

MODERN HIGH-SPEED INFLUENCE MACHINES—Their Principles, Construction and Applications to Radiography, Radio-Telegraphy, Spark Photography, Electro-Culture, Electro-Therapeutics, High-Tension Gas Ignition, The Testing of Materials, etc., by V.E. Johnson, M.A., 1922. #B0266, 278pp, staples ... \$24.95

INDUCTION COILS - HOW TO MAKE, USE AND REPAIR THEM, T. Edwin Lowell & H.S. Norrie. Contains full instructions for making a powerful Shocking Coil, a 1/2" Spark Coil, a 4" Spark Coil, and also hints on experiments with induction coils; including Ruhmkorff, Tesla and Medical Coils, Roentgen Radiography, Wireless Telegraphy, and practical information on Primary and Secondary Batteries. (1904) #B0048, 8-1/2x11, 90pp, staples ... \$13.95

THE CALCULATION & MEASUREMENT OF INDUCTANCE & CAPACITY, W.H. Nottage, 1916. Contains formulas and methods to measure inductance and capacity. Includes a section on high-frequency measurements, as well as diagrams and schematics of many early electrical testing appliances which you can build yourself and use today. Calculation tables and index. #B0012, 11x8-1/2, 137pp, staples ... \$9.95

ELECTRICITY AND MATTER, J.J. Thomson, 1904. An exposition on advances in electrical science at the turn of the century, before the abstractions of relativity removed science from reality. Thomson disclosed the facts leading up to his discovery of the electron. #B0115, 162pp, illus, staples ... \$12.95

RAYS OF POSITIVE ELECTRICITY & Their Application to Chemical Analysis, Sir J.J. Thompson, 1916. Rays of Positive Electricity; Double Cathodes; Rectilinear Propagation of Positive Rays; Electrostatic Deflection of the Particle; Very Low Pressure Effects; Negatively Charged Particles; Atoms Carrying Two or More Positive Charges; Retrograde & Anode Rays; Doppler Effect; Spectra Produced by Bombardment with Positive Rays; Disintegration of Metals Under the Action of Positive Rays; Use of the Positive Rays for Chemical Analysis; Evolution of Helium & Neon. #B0072, 8-1/2x11, 132pp, staples ... \$19.95

ELECTRIC DISCHARGES, WAVES & IMPULSES AND OTHER TRANSIENTS, Charles Proteus Steinmetz, 1914. This is a vital book for the electrical engineer pursuing the lost science of electricity as developed by Tesla and other pioneers. Includes: Nature & Origin of Transients; The Electric Field; Single-Energy Transients in Continuous-Current Circuits; Single-Energy Transients of Alternating-Current Circuits; Single-Energy Transient of Iron-clad Circuits; Double-Energy Transients; Line Oscillations; Travelling Waves; Oscillations of the Compound Circuit; Continual & Cumulative Oscillations; and Inductance & Capacity of Round Parallel Conductors. #B0026, 8-1/2x11, 156pp, illus., staples ... \$23.45

DISTANT VISION—*Romance and Discovery on an Invisible Frontier*, by Elma G. Farnsworth. The biography of Philo Taylor Farnsworth II. Beginning with the first moment of inspiration—while plowing a potato field—you'll follow chain of events that enabled Farnsworth to produce the first all electronic television picture in 1927, and fought RCA for 20 years to make TV available. In the 1960s he designed and built a device capable of producing nuclear fusion electronically! A true story of suppressed technology. #B0174, 333pp, hardbound ... \$24.95

ORDERING INFORMATION

Postage & Handling - add \$2.75/first item, plus \$1 each additional item. x2 for O'seas. California residents add 7 1/4% Sales Tax.

Visa/Mastercard orders can also call (707) 986-7211 or Fax (707) 986-7272

BORDERLANDS

P.O. Box 429
Garberville, California

Books from Borderlands

THE BEGINNINGS OF LIFE

Being Some Account of the Nature, Modes of Origin and Transformations of Lower Organisms.

by H. Charlton Bastian, M.A., M.D., F.R.S., etc
in Two Volumes, 1872.

Volume I Contents: Part One—The Nature and Source of the Vital Forces, and of Organizable Matter: The Persistence of Force—Correlation of the Vital and Physical Forces; The 'Vital Principle'—Nature of Life; Nature of Organizable Materials and of Lowest Living Things; Relations of Animal, Vegetable and Mineral Kingdoms—Theories of Organization; Modes of Origin of Reproductive Units and of Cells. Part Two—Archebiosis: Meanings attached to term 'Spontaneous Generation'; Mode of Origin of Primordial Living Things; Limits of 'Vital Resistance' to Heat; The Experimental Proof—Untenability of Pasteur's Conclusions; Physical and Vital Theories of Fermentation; Additional Proofs of the Occurrence of Archebiosis. **Volume II Contents:** Part Two [*Continued*]**—Archebiosis:** Explanation of Apparent Discrepancies and Difficulties; Crystals and Organisms—Causes which determine their Form and Structure; The Fundamental Properties of Living Matter; Development of the Primordial Forms of Life—Their Relationship to one another. **Part III—Heterogenesis:** Ancient and Modern Views concerning Heterogenesis; Synthetic Heterogenesis; The Panspermic Hypothesis; Heterogenesis in Higher and Lower Organisms; Transformations of Euglenæ and other Organisms—Modes of Origin of Ciliated Infusoria; Transformations of Ciliated Infusoria—Modes of Origin of Rotifers, Tardigrades, and Nematoids; Individuals, Ephemeromorphs, and Species; General Considerations—Conclusion. Illustrated with Appendices. A rare treasure we were able to get a hold of to reprint. Volume I, 500 pages, #B0268 ... \$40.80, Volume II, 800 pages #B0269... \$64.22

Special first print run offer on all orders postmarked before July 31, 1994! Both volumes for \$75, postpaid to any of the United States, overseas please add surface \$10, air \$25.



P.O. Box 429 ★ Garberville ★ California ★ U.S.A.

FORWARDING POSTAGE GUARANTEED
ADDRESS CORRECTION REQUESTED

BULK RATE
US POSTAGE
PAID
Tarpon Springs,
Florida
Permit No. 37