

THE JOURNAL OF BORDERLAND RESEARCH (ISSN 0897-0394) is a publication of Borderland Sciences Research Foundation, Inc., P.O. Box 429, Garberville, California 95440-0429 USA. Phone: (707) 986-7211. The Journal is edited and assembled by Thomas Joseph Brown, Director of BSRF, and is published six issues a year (bi-monthly) with the assistance of the BSRF Associates. The Journal is issued to members of BSRF.

THE JOURNAL OF BORDERLAND RESEARCH is a Free-Thought Scientific Forum examining the Living Energy of Our Creator and probing the parameters of Body, Mind and Spirit. Current research is oriented toward verification of Etheric Energies and their relationship to Beneficial Technologies. Donations of pertinent material are accepted for publication in the Journal. By presenting your work you will be helping other Researchers into the Borderlands of Science and we all benefit.

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The Main Function of BSRF is to act as a clearinghouse for information. BSRF is chartered to accept donations to further Research into the Borderlands of Science. Active research is being carried out and results are published in The Journal of Borderland Research. The majority of available funds for BSRF expenses come from sales of Research Publications and Membership fees.

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THE BION EXPERIMENTS OF DR WILHELM REICH by Alison Davidson

Dr Reich's search for life energy, for the intangible, incomprehensible something which animates living matter, resulted in his bion experiments of 1937 to 1939.

He discovered that during the disintegration of food and other organic matter, tiny luminous vesicles were produced that were capable of culture under very strict and sterile conditions. Under microscopic magnification of 2000-3000X these vesicles, or bions as Reich called them, moved through the microscopic field with pulsating movements and always showed a bluish colour, no matter what substance they were derived from.

From "The Discovery of the Orgone" Reich lists the following facts for an understanding of the bions as they emerged during his experiments:

- 1. All matter if exposed to high temperatures and made to swell undergoes a process of vesicular disintegration.
- 2. High temperatures (autoclavation at 120 degrees C, heating to incandescence, about 1500 degrees C) destroy what life there is. But these same high temperatures produce the energy vesicles which in turn can develop into living bacteria.
- 3. The energy at work in the bions is not introduced into them artificially from the outside; rather, it originates from the vesicular disintegration of matter itself.
- 4. An energy vesicle is a minutes quantity of matter, containing a quantity of energy derived from this matter.
- 5. The bions are not complete living beings, but only carriers of biological energy; they are forms of transition from non-living to living.
- 6. The blue colour of the content is the immediate expression of this energy. As the blue disappears, the essential biological characteristics of the bions disappear also.
- 7. The bion experiments do not newly 'create' artificial life; they only demonstrate the natural process by which protozoa and cancer cells develop spontaneously from vesicularly disintegrated matter. They also demonstrate the natural form in which biological energy is contained in humus, in inorganic material, in foodstuffs, blood cells, gonadal cells, etc.

Dr Reich discovered that bions which emanate a strong blue glimmer kill or paralyze bacteria and small protozoa. They destroy cancer tissue by permeating it, even at a distance.

All of these functions pointed to enormous energies which are contained in the bions and have a powerful effect n the surroundings. How powerful these energies were Reich was to discover in his subsequent experiments with the SAPA bions, and their dramatic effect in his laboratory.

To completely refute the objections that so-called 'air germs' were a contaminating source of the life-forms emerging from disintegrating mineral and plant substances, Reich began to heat coal and earth crystals to incandescence before putting them into the solution which promotes swelling. Still the bions appeared, their formation accelerated by the intense heat.

"Now, with complete sterility assured, the bionous disintegration of matter could be achieved within a few minutes. No longer did I have to wait for days or weeks until the process of swelling at room temperature finally resulted in bions... For more than 2 years, experiment after experiment confirmed the bionous disintegration of matter and the organization of bacteria and cells from the bions.

It was in January 1939 that one of Reich's assistants demonstrated the heating experiment to a visitor of the laboratory. Taking the wrong container from the sterilizer, she heated ocean <u>sand</u> instead of earth. After 2 days there was a growth in the solution which resulted in a culture of large, slightly mobile, intensely blue packets of energy vesicles. At 400%, they looked like sarcinae as occasionally found in water.

These bions Reich termed SAPA (sand, packet), and they showed some extremely interesting characteristics.

"The effect of the SAPA bions on protozoa, bacilli in general and T-bacilli in particular, was much stronger than that of other bions. Brought together with cancer cells, they killed or paralyzed the cells even at a distance of about 10 microns. When cancer cells came as close as that to the bions, they would remain as if paralyzed, in one spot; they would turn around and around in the same spot and finally become immobile. These phenomena were recorded by microfilm."

The effect of the SAPA bions on Reich himself was even more dramatic. During the winter of 1939 he studied the bions daily for several hours. His eyes hurt from looking into the microscope and he developed a violent conjunctivitis. Any close contact with the cultures resulted in pain and inflammation of the skin, and although Reich hadn't been in the sun during these winter experiments his body was strongly tanned. By now, Reich knew he was dealing with some kind of radiation.

He sought help from the radium physicist of the Cancer Hospital in Oslo, Dr Moxnes, who tested a culture with the radium electroscope. There was no reaction. Yet the radiation from the bion cultures seemed to be present everywhere in the laboratory. He tried observing the cultures in dark basement rooms, making dozens of cultures to increase the intensity. A grey-blue light permeated from the darkness and violet light phenomena seemed to emanate from the walls.

One evening after spending several hours in the basement, Reich could see the blue glimmer visible as a slowly moving, grey-blue vapour around his body and other objects in the room. It was a frightening experience, for he radiation seemed to be everywhere and pervade everything.

Through subsequent experimenting with other subjects as well as himself, Reich came to the conclusion that the radiation had to do with sun energy. If it was present everywhere, it had to come from the sun.

"The SAPA bions had originated from ocean sand. Ocean sand, however, is nothing but solidified sun energy. The process of heating and swelling had liberated the energy from the matter... The existence of an energy with an extraordinarily intense biological activity could no longer be doubted."

He tried shielding the energy by building a metal-lined box in which he expected to be able to confine and control the radiation from the bions — a logical technical step to take under conventional concepts of radiation. But he was astounded to find that this box intensified the radiation effects. With this energy appearing everywhere and in everything, there seemed to be no defense against it. Reich realized that the energy was universally present, and that the bions had simply brought this energy into focus by local intensification.

In 'The Cosmic Pulse of Life' Trevor Constable comments further on these experiments: "Dr Reich identified this energy with the galvanic energies present at the skin surface. Later on in America (1939-40) he discovered the presence of the energy in the atmosphere as a primordial, mass-free energy. He found this same energy also present in blood that was allowed to disintegrate. The connection to the single spot of dried blood, held in a blotting paper as a tuning crystal in Dr Ruth Drown's work, will automatically commend itself to the reader at this point. The two titans unbeknown to each other, were treading parallel paths.

"The presence of orgone energy in disintegrated blood verifies from yet another angle the access given to the life energy continuum by the much-ridiculed single spot of blood.

"Dr Reich called this energy <u>orgone</u> to identify it permanently with things organic, with the orgasm and with life. He proved its existence visually, thermically, electroscopically, and later on, at the Geiger-Muller counter and by lumination in vacor tubes. He was able to develop protozoa from the bions. This led him into cancer research, impelled by the prevision that cancer might have a similar origin..."

It is a sad testimony to modern mechanistic science, that Reich's bion work and discovery of the orgone energy was subjected to hostility and irrational attacks by the established scientific and medical authorities. Reich showed conclusively that life can form spontaneously from inorganic matter, that universal energy can be tapped and measured, that free from prejudice and sterile conditioning we can begin to explore and understand the source and expression of life energy. From that basis a new science is now emerging, affirming the connection that exists between everything in the universe just as the ancient life-affirming religions taught.

The FDA may have destroyed Reich, but just as he showed to the world life appearing out of inert matter, so the seeds of his research are flourishing in the crumbling fortresses of life-negating science.

Reprinted from THE MORLEY-MARTIN EXPERIMENTS and THE EXPERIMENTS OF DR. CHARLES W. LITTLEFIELD published by BSRF, first printing 1950, revised edition 1986. This research compilation is a prime piece of evidence showing the living etheric force hidden in dense matter. Trevor Constable writes in COSMIC PULSE OF LIFE, "Under conditions of total sterility he (Morley-Martin) proved in the 1930's that animal forms exist in and can be awakened from azoic rocks. Such devastating findings wreak havoc upon the neurotic security of those whose whole world conception rests upon the opposite." Morley-Martin is less known than Wilhelm Reich, but the work of both of these men is in accord with the concept of the living universe. THE MORLEY-MARTIN EXPERIMENTS is \$5.00 plus postage & handling.

Summarized from the work of Royal R. Rife by Mark L. Gallert

Microscopes constructed on entirely new principles have been invented and developed by Royal Raymond Rife, a scientist and biologist. These new microscopes have led to many discoveries regarding:

(a) The characteristics of bacterial and virus micro-organisms.

- (b) Factors leading to the production or transformation of various micro-organisms.
- (c) The role of bio-chemical changes, in encouraging or retarding the growth of harmful micro-organisms.

In this paper we shall first consider briefly the new features of the Rife Microscopes, and then summarize the discoveries that have occurred through the use of these instruments.

1. THE RIFE MICROSCOPES

With these outstanding optical devices, resolution up to 31,000 diameters and magnification up to 60,000 diameters is obtained, with a number of advantages over the electron microscopes—the only other devices known at the present time which reach such high magnifications.

The results obtained from the Rife microscopes are due principally to the use of three principles of physics in a manner completely new to the field of optics:

- 1. A method of selecting a portion of the frequency spectrum of light for use in viewing specimens.
- 2. A method of heterodyning light to bring micro-organisms of various invisible ultra-violet colours into the visible light frequency range.
- 3. The attainment of very high magnification and resolution through an ingenious method for keeping the optical rays parallel in the instrument.

Considering each of the foregoing principles in turn:

1. Selecting a Portion of the Frequency Spectrum

It is well known that a beam of light passed through a prism is broken up into the colour spectrum, and since different colour-components of the beam are displaced by differing degrees, the beam emerging from the prism is spread out over a relatively wide area. The visible colours can be seen un-aided, but beyond the red component of the beam there is an invisible beam of infra-red and beyond the violet component there is an invisible area of ultra-violet frequencies transmitted by the prism if it is made of material such as quarts which permits the transmission of ultra-violet.

In the Rife microscopes, circular, wedge-shaped, block-crystal quartz prisms are used to polarize the light to be sent through the scope. By means of a revolving adjustment or control, the portion of the spectrum sent through the prisms is selectable, so that a narrow band corresponding to any colour from infra-red up through the visible colours and then through the entire ultra-violet range in narrow steps, can be selected for use in illuminating the specimens. The importance of this unique feature will be evident later.

2. Heterodyning Light

We will first explain the term "heterodyne" and then show its application to light as developed by Rife. It is an observed fact in physics, and a principle constantly used in radio and in work with sound, that when two different frequencies of vibration are produced, they inter-act upon each other to produce two new frequencies—one of which is the sum of the two original or fundamental frequencies: the other is the difference between the two originating or fundamental frequencies. Suppose, for example, that in the range of sound, a tone of 400 cycles per second and another tone of 600 cycles per second is produced. The resulting new frequencies will then be 200 cycles, the difference between 400 and 600 cycles, and 1,000 cycles for the other new tone, the sum of 400 and 600 cycles.

So far as is known, Rife was the first individual to apply this principle to the field of light. The visible frequencies range from about 436 trillion oscillations per second at the red end of the visible spectrum, to about 732 trillion oscillations per second at the violet end of the visible spectrum. An oscillatory rate faster than 732 trillion times per second results in a beam which is in the invisible, ultra-violet range. The ultra-violet band occupies several octaves of vibration, as compared to the visible spectrum which occupies less than one octave of vibration...(The upper limit of an octave has twice the vibratory rate of the lower limit of the same octave.) So the range of the vibratory light spectrum invisible to the human eye is larger than the frequency range of the light spectrum which the eye can perceive.

The process of heterodyning light is accomplished by bringing an invisible, ultraviolet beam of, for example, 1,200 trillion oscillations per second into contact with another equally-invisible beam of say, 1,700 trillion oscillations per second; the difference between the oscillatory rates of the two originating beams results in the production of a light beam having an oscillatory rate of 500 trillions per second, which is within the range visible to the human eye.

In the past, many micro-organisms could only be observed if stained with a chemical. Some micro-organisms never became visible with other microscopes, because no suitable stain could be found for them. One of the prime advantages of the Rife microscopes is that Rife found many of the micro-organisms having no colour in the visible light range—their frequency characteristic is such that they have a "colour" in the invisible, ultra-violet range. By the use of the heterodyning principle in his microscopes as mentioned, the micro-organisms of ultra-violet colours are brought into the visible light range in their natural state, without the use of any stain., This method also beings into visibility the micro-organisms which had not responded to any known stain, and all micro-organisms can be viewed in their natural live state—a very considerable advantage, since the use of a stain kills the micro-organism. In fact this is the only microscope yet known by which ultra-high magnification can be used to view organisms in their living state, for the beams from electron microscopes instantly kill any living organisms.

3. Achievement of Very High Magnification through Optical Means

In the ordinary microscope, the rays of light refracted by the specimen enter the objective and are then carried up the tube in supposedly parallel rays, but in practice these rays converge after a certain distance, cross each other, and then diverge, resulting in distortion and a limit on the amount of magnification obtainable, since the rays by ordinary means cannot be kept parallel for a sufficient distance to pass them through several series of lenses. In the Rife microscopes, specially-designed

quartz prisms are inserted into the tube at frequent intervals to counteract the tendency of the rays to diverge from parallel. This enables three matched pairs of oculars to be used in the universal microscope, the largest which Rife has constructed, permitting the attainment of the extra-ordinarily high powers of magnification and resolution that we have already mentioned. The supposed limit on magnification arising from the dimension of a wavelength of the light used for viewing the specimen, has been transcended by Rife, partly through the utilization of ultra-violet light which si composed of wavelengths of shorter dimensions than those of visible light, and partly by other means. Many technical details of the instrument are contained in the article The New Microscopes by R.E. Seidel, M.D. and M. Elizabeth Winter, published in the February, 1944, Journal of the Franklin Institute. That article has been reprinted by the Lee Foundation for Nutritional Research, P.O. Box 652, Milwaukee, Wisconsin 53201, and published as their Reprint #47, "The Rife Microscopes or Facts and Their Fate".

2. DISCOVERIES RESULTING FROM THE USE OF THE RIFE MICROSCOPES

1. Frequency Characteristics of Micro-organisms

The adjustment of control mechanism in the Rife microscopes, for selecting the frequency band of light sent up through the lenses, has already been mentioned. In the sue of these instruments, it is found that the control setting differs for every different type of bacteria and virus, and that for any particular type of bacteria or virus the setting is always the same. This means that each different type of bacterial and virus has its own characteristic life frequency which it emits, and by "tuning" the microscope to that frequency of light, the micro-organism becomes brilliantly visible without the use of any chemical stain.

In the use of the Rife microscopes it has been found, for example, that Bacillus Typhosus is always a turquoise-blue; Bacillus Coli is mahogany-coloured; Mycobacterium Liprae is always a ruby shade; the filter-passing form of virus of tuberculosis is an emerald green; the virus of cancer (one of the discoveries made possible by the Rife microscopes) is purplish-red, etc. Different colours are of course representative of different frequencies of light.

2. Observations of Micro-organisms not shown by Other Microscopes

Because of the unique characteristics of the Rife instruments as already described, they permit observation of micro-organisms which other microscopes are unable to show. Among the discoveries thus made, have been virus organisms present in poliomyelitis and cancer.

3. New information regarding the relationship between Micro-organisms and Their Chemical Environment

The cancer virus which was isolated by Rife, and which he terms BX virus, induced cancer growths in 104 successive generations of albino rats. During the course of the extensive experiments performed with this virus, it was found that with a slight change in the chemical media for the culture, a larger virus resulted, termed BY. Another slight change in the chemical media, and the virus is transformed into a monocyte. With still another change in the chemical environment, the monocyte becomes a fungi, and with still further slight change, the fungi turns into Bacillus Coli! Then if the Bacillus Coli is kept in a certain media for a year (the time required for metasteses).

the BX virus again appears! The changes in the chemical environment required to effect these transformations are very slight—in fact it is stated that an alteration of four parts per million in the media will transform the harmless B. Coli into the deadly B. Typhosus. These changes can be made to occur in as short a period as forty—eight hours.

It is Rife's belief that all pathogenic (disease-producing) micro-organisms are divided into ten groups, and that any micro-organism can be converted into that of any other within its group, by changing the chemical environment, sometimes by as little as two parts per million. From the above it can be seen how slight metabolic changes in body tissues can induce a micro-organism of one group to change into another micro-organism within the same group. The Rife work provides interesting support for, and visual confirmation of, the Naturopathic theory. In contrast to the Allopathic view, Naturopaths hold that the important factor in fighting disease is the vitality of the patient and the strength of the general constitution, and that if these can be supported and the body chemistry kept balanced, germs need not be a concern.

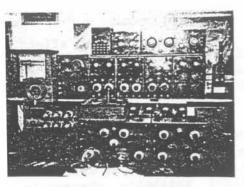
4. Use of Selected Frequencies of Radiation to Destroy Specific Micro-organisms

To quote from the article in the Journal of the Franklin Institute: "Under the Universal (Rife) Microscope, disease organisms such as those of tuberculosis, cancer, sarcoma, streptococcus, typhoid, staphyolococcus, leprosy, hoof and mouth disease, and others may be observed to succumb when exposed to certain lethal frequencies peculiar to each individual organism, and directed upon them by rays."

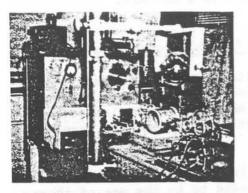
The frequencies referred to in the above paragraph are in the radio-wave band, and the most effective method of administration has been found to be the use of these differing frequencies of radio waves to pulse the current of a vacuum tube similar to an X-ray tube but partially filled with helium, so that none of the destructive X-ray radiations are emitted. The beam or rays from this new type of tube is directed at the micro-organisms under consideration. This work is in the laboratory stage, and is of interest mainly because of the principles involved.

Once it was proven, by the use of the Rife microscopes, that each type of microorganism has its own particular life frequency or rate of vibration in the light band, it became a logical corollary that for each type of micro-organism there is also some frequency radiation or rate of oscillation that will be destructive to the organism.

In the field of radionics, for example, the theory has long been maintained that each virus, bacteria or type of toxin has its own frequency of radiation or tuning, and that these frequencies provided a key to tunings which could be used to destroy the virus or bacteria—however with Rife's work it is now possible to prove the correctness of the theory, by observation with his special microscopes which show the destruction of any micro—organism when the appropriate frequency of radiation is applied.



1933



FREQUENCY INSTRUMENT 1935



FREQUENCY INSTRUMENT

ELECTRON THERAPY

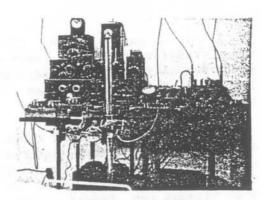
Eradication of disease is the exciting promise of new discoveries in microscopy and radio wave electron transfer by Royal R. Rife.

Virus diseases, the ancient scourge of man, which still plague millions in the world, are destroyed by modulated radio waves, tuned to precise frequencies in thousands of lab tests, the frequency instruments have killed organisms in test tubes, animals, and human patients. The lethal rays are transmitted by the frequency instrument ray tubes. Most cases respond within a period of two months and diseases are quickly rendered non-infectuous. Destruction of the organisms by rays is described as being similar to the phenomenon of transmitted electron energy and coordinating resonance of critical fresuencies with electro magnetic and static fields.

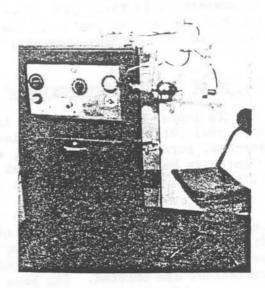
Rife has demonstrated that the frequency instruments have the power to kill germs without harm to human tissue.

Development of the ray to the point where it is now used effectively against virus, bacteria and fungi has been accomplished and made possible by two other discoveries of nearly equal importance to practitioners and lab workers. One has been the design and construction by Rife of powerful virus microscopes, shown on the opposite page, with special patented illumination and peak magnification beyond 17,000x. The other is Rife's isolation of pure cultures of the filterable forms of virus, which are too small to be seen with the best research microscopes. Virus has been revealed for the first time as the prenatal cell of pathogenic disease and is viewed by the heterodyne wave length of light transmitted through the

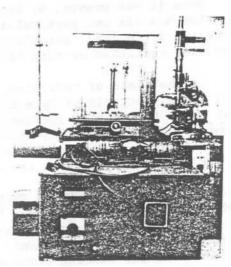
JOHN F. CRANE



FREQUENCY INSTRUMENT 1929

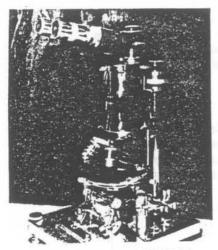


FREQUENCY INSTRUMENT 1936 (One of Twelve)

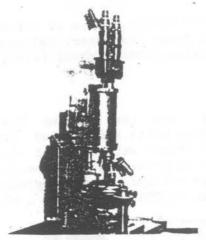


FREQUENCY INSTRUMENT 1954-1959 (One of Six)

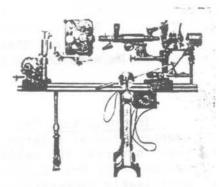
PICTORIAL HISTORY OF ROYAL R. RIFE'S FREQUENCY INSTRUMENT DEVELOPMENT FOR THE TREATMENT OF PATHOGENIC DISEASES



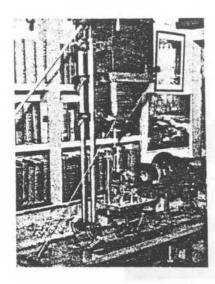
4TH VIRUS MICROSCOPE (Prismatic)



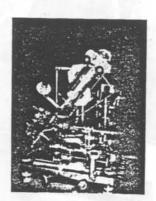
2ND VIRUS MICROSCOPE (Prismatic) 1932



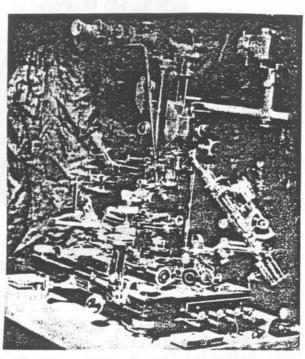
1ST VIRUS MICROSCOPE

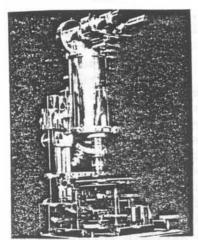


4TH VIRUS MICROSCOPE (Prismatic) 1935

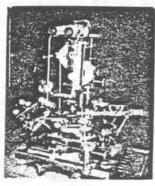


For Measuring Angles of Crystals





5TH VIRUS MICROSCOPE (Prismatic) 1937



For Slit Ultra Ilumination

3RD PRISMATIC VIRUS "UNIVERSAL" MICROSCOPE 1933

All Virus Microscopes designed and built by ROYAL R. RIFE for Cancer and other Research. Rife isolated the virus of Cancer, Tuberculosis, Poliomeylitis, Typhoid, Herpes, and 40 other virus in 1931 to 1935.

Report on the Initial Testing Phase of DePalma Energy Corporation N-1 Electrical Power Generator, Released January 6, 1988 DePalma Energy Corporation, 1060 Channel Drive, Santa Barbara, CA 93108

Introduction: Two years ago the DePalma Energy Corporation initiated the construction of a large N machine which was scaled from smaller machines which were used to verify the validity of direct extraction of electrical energy from space or the vacuum. The N-1 machine was to produce a high enough output voltage so as to be efficiently convertible to high voltage alternating current. Target parameters for the machine were 12 v.d.c output at 10,000 amperes for a 6000 r.p.m. rotational speed.

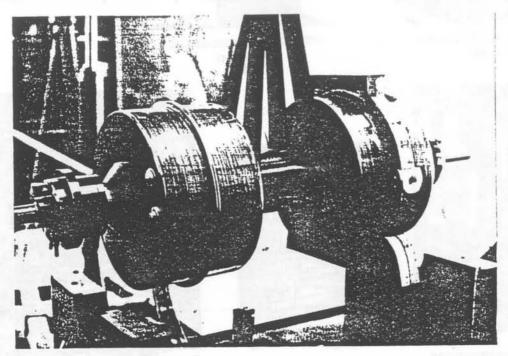


Figure 1

Rotor: The rotor is a key component of the N-1 generator, and into it goes most of the time and effort in constructing the machine. Figure (1) shows the completed rotor suspended from a crane. Two N-machines are connected electrically in series on a common shaft. Magnetic polarity is NS-SN so that rotation of the unit causes the voltages to be additive. Electrical connections are made to the outer edges via liquid metal, metallic mercury wetted contacts as shown in figure (2). Some of the considerations incorporated into the design are: The idea of series, two machines on the same shaft, is a good one because with magnetic polarity indicated only two identical mercury contacts are needed. The drawback is the necessity of separating the two N machines far enough from each other so as to reduce the demagnetizing effect of one on the other. A further simplification is the use of only two support bearings for two machines, providing the center section can be made stiff enough to place vibrational problems above the planned operating speed of the machine. The 9-1/2 inch separation of the two magnet stacks resulted in a 20% reduction in the field strength of the combination. Initial computer simulations of the field strength inside 8-3/8inch thick, 13 inch diameter magnet stacks of NdFeB magnet material indicated 9000 gauss. Actual measurements gave only 3/4 of the expected figure, 6750 gauss. Together with the 20% loss due to the proximity of the magnets the resultant field strength is

5400 gauss in the center of the stacks. We have found some relaxation in the strength of NdFeB magnets in open flux path operation even when the diameter to thickness ratio is what would normally considered to be a safe 2:1.

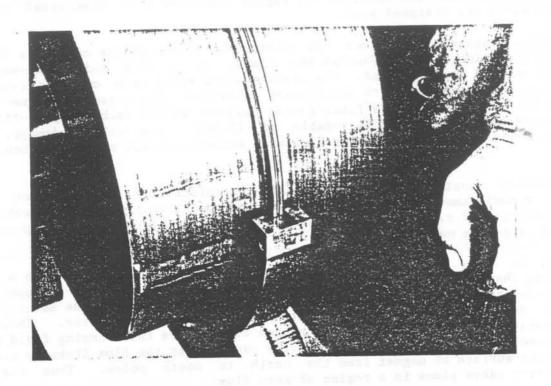


Figure 2

The achievement of a field strength of 6750 gauss uniformly distributed over a diameter of a 13 inch circle with permanent magnets without a closed flux path is impressive considering the size of the water cooled electromagnet needed to produce the same result.

Nevertheless it was felt that the flux inside the machine could be increased by making the machine partially self-exciting. This was accomplished by subdividing the 14 inch diameter by 3/8 inch thick copper disc in the center of each magnet stack into two parallel windings of two turns each. This is done in the manner of Tesla, (Reference 1). Since the machine is operating on the slope of the demagnetization curve of the magnets a small increment of magnetic induction will result in a disproportionate increase of the magnetic flux of the magnets. With sufficient current drawn from the machine the output impedance will decrease and may become negative. At present the measured internal resistance of the machine is 75 micro-ohms at 800 amperes and the voltage output is 1.216 volts per 1000 r.p.m. Mercury contacts must be amalgamated by hand before assembly and seem to improve with running time. Mercury builds a surface layer of oxide in contact with atmospheric oxygen. Oxide sludge can be eliminated by operating the machine in an inert helium atmosphere and hermetic sealing of the unit. The N-1 generator incorporates both of these features which also prevent any leakage of mercury or mercury vapor into the environment.

The rotor is constructed on a BeCu shaft 2 inches in diameter and 49 inches long. BeCu is used for strength and good electrical conductivity. The center section between the magnet stacks is stiffened by a 6 inch diameter 1/2 inch wall aluminum cylinder which encloses the central axle of 2 inch diameter BeCu. The two central shafts are

screwed together in a coupling which when the magnet stacks are rotated one relative to the other, tightens and places the aluminum cylinder in a state of compression. The stressed center section is stiffer than if the connection was a solid 6 inch diameter cylinder. All components are anodized and teflon coated so that electrical conduction takes place along the designed path.

The magnet stacks themselves are constructed of 200 pieces each made from NdFeB hexagons of dimension 2 inches (across the flats) by 1 inch thick, pre-magnetized. Each magnet weighs about 1 pound. The magnets which repel each other intensely are assembled and glued together with proprietary adhesives. The assembled magnet stack is wound with 1/4 inch of graphite fiber roving followed by 1/4 inch of epoxy-fibreglass. As constructed the rotor should be capable of 10,000 r.p.m. without damage. Further development would result in a rotor capable of standing 20,000 r.p.m. without flying apart.

The mercury contacts operate totally satisfactorily but are not entirely leakproof. A small amount of mercury is lost in the operation of the machine which amounts to about 1/2 c.c. per minute. A continuous flow system can be provided to recycle and clean the mercury.

As can be seen from figure (2) the edge of the copper disc protrudes a distance slightly less than 1/2 inch into a slightly larger channel cut into a copper bussbar which encircles the magnet stack. The actual point of contact with the mercury is made at a radius determined by exploration with a Hall effect magnetometer. There is a point, somewhat above the surface of the magnet stack where the fringing field produced by the presence of the copper disc is exactly canceled by the flux linkages proceeding over the outer surface of magnet from the north to south poles. Thus the mercury sliding contact takes place in a region of zero flux.

The presence of strong magnetic flux around the rotor, and its considerable weight, 800 lbs., make it a very difficult piece to handle mechanically. In movement around a machine shop for the various operations, every motion must be thought out carefully. After the work is finished all the tools have to be demagnetized, including large lathes and milling machines.

These difficulties have to be counterbalanced by the easy accessibility of the liquid metal sliding contacts and the higher voltages obtainable from the large radius magnet stacks. Since voltage increases as the square of the machine radius, the loss in flux from non-closure of the flux path is more than compensated by the increased voltage output. i.e., if a 6 inch diameter central axle in a closed path machine were operated at saturation, say 2 x 6750 gauss or 13.5 KG then the voltage obtained would be only 1/2 of what would be gotten with half the flux (6750 gauss) at twice the radius (12 inches).

The other overriding consideration is that no closed flux path is possible in a machine operating with super-conducting magnets since the attainable magnetic strength, 90 KG, will saturate known magnetic conductors.

Test Results: Figure (3) shows the partially assembled machine, figure (4) shows the completed N-1 machine under test. A loadbank capable of absorbing 100 KW @12 v.d.c. is in the background. Tests are preliminary for two reasons. Firstly we are operating at only a small fraction of power output for which the machine is capable, and second it is only possible to estimate the electro-mechanical efficiency of the drive motor. A second more definitive round of testing will take place when we have

installed an in-line direct torque sensor between the drive motor and the N-l generator. The exact comparisons can be made between direct horsepower mechanical input and the electrical output.

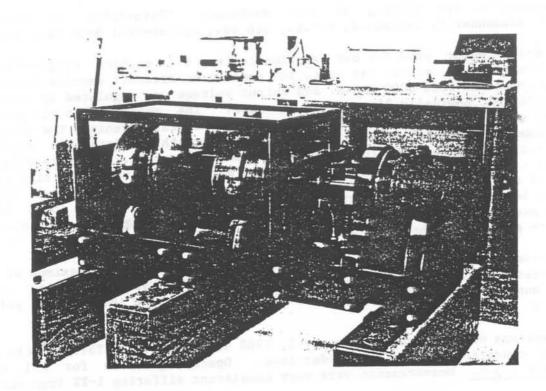


Figure 3

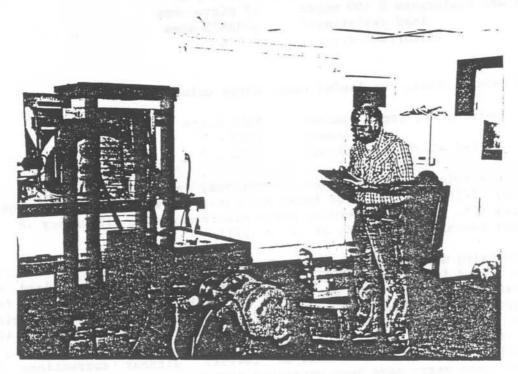


Figure 4

Electrical testing of motors and generators is a carefully specified procedure and has been followed in accord with well established engineering practice. The results will be presented here.

Reference to the testing of d.c. machines: "Principles of Direct-Current Machines", Alexander S. Langsdorf, M.M.E., 5th ed., McGraw-Hill Book Co., Inc., 1940.

The drive motor used for our experiments is a d.c. machine originally used to supply a constant 30 v.d.c. at up to 500 amperes in aircraft service during W.W. II. Operating speed was 4000-8000 r.p.m. and output voltage was regulated by control of the field excitation, nominally 24 v.d.c. @ 12 amps. The machine has six poles and six interpoles excited by a combination of armature and field currents. The voltage picked off the commutator by six sets of brushes passes through the interpole winding which adds 1/2 v.d.c. drop for each 100 amperes of armature current. The interpoles are used to prevent commutation losses in electrical machines operated at high speed. The presence of the interpoles reduces the size of main poles by about 30% with a consequent loss in efficiency. The complete subject is dealt with in a Langsdorf's book. In addition to the IR drop in the interpole winding there is a one volt drop assigned to each carbon brush in accord with AIEE procedures.

Electromechanical efficiency of d.c. machines studied hits a maximum of about 85% in the center of the operating range. Efficiency falls rapidly at low speeds and decreases much less rapidly at speeds above the maximum efficiency point. (See Langsdorf p. 525)

The average of five runs on January 5, 1988 are presented. Three of the runs were at no load condition and two were under load. Operating speed for all tests was exactly 2600 r.p.m. Measurements were very consistent differing 1-2% from run to run.

machine speed:

2600 r.p.m.

internal resistance @ 800 amps:

75 micro-ohms

load resistance:

.003875 ohms

volts/1000 r.p.m.:

1.216

Derived calculations, two loaded runs, three unloaded runs.

motor power input loaded:

5030 watts

unloaded:

2383 "

N-1 electrical output:

2480 "

(1) straight electrical efficiency (no corrections) = 93.8%

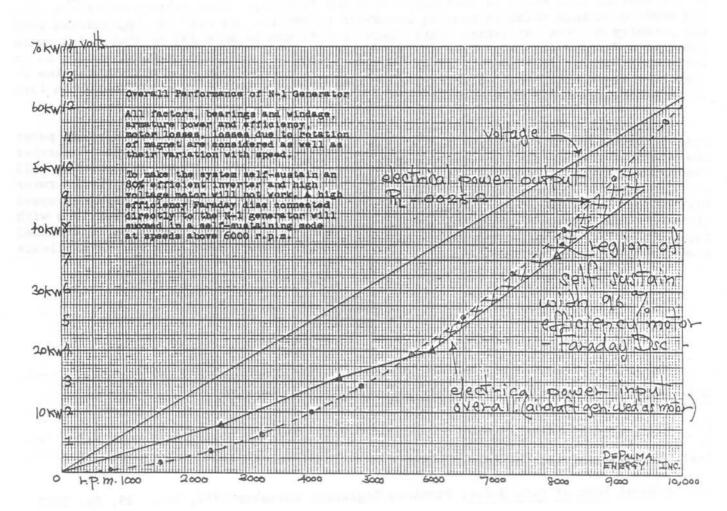
- (2) electrical efficiency corr. for brush and interpole winding drop = 108.5%
- (3) electrical eff. corrected assuming motor electromagnetic efficiency .8 = 136%
- (4) efficiency assuming motor eff. of .4 = 271%

[note: What is being measured is <u>incremental</u> electrical efficiency. Examination of the figures shows loaded input is supplying <u>both</u> electrical output and no-load mechanical losses (expressed electrically). On this basis a corrected loaded input (case 2) of 4440 watts expresses a no-load mechanical loss of 2155 watts and an electrical output of 2480 watts (simultaneously). This gives an overall energy balance of 4440 watts input giving rise to 4635 watts total output (sum of elec. and mech.). This expresses an overall efficiency for the N-1 unit of 104.5%. Without corrections for motor efficiency 195 extra watts have been extracted from space.]

Set of assumptions (4) seems most likely since this figure falls into line with the average of power ratios reported for N machines by Trombly (4.92), Tewari (1.75 - 2.50), DePalma (original Sunburst machine 2.5 - 3), Kincheloe (improved Sunburst 4.9).

For the calculations made on the DePalma Energy N-1 unit for the five runs averaged the loaded drive motor current ranged from 194 to 197 amps. Drive motor voltage ranged from 25.5 to 26 volts respectively. Unloaded drive motor current ranged from 89.5 to 96 amps voltage from 25.4 to 25.8 volts. Loaded current output was 800 amps. @ 3.1 v.d.c. Unloaded d.c. output voltage ranged from 3.1 to 3.22, avg. 3.16. All readings taken at constant speed of 2600 r.p.m. Change in loading on the drive motor only changes armature current, armature voltage remains essentially constant.

The next phase of measurements will refine the efficiency determination by a direct measurement of generator driving torque x r.p.m. from an in line torque sensor. This installation will take some time however it was felt useful to put out an initial report since the reported results are consistent with the findings of other investigators.



Self Running machines: Many workers are attempting to construct a self-running motor generator combination operating on the principle of direct extraction of electrical energy from space. The presently used combination uses a Faraday disc motor excited from an N machine mounted on a common shaft. Even if the electro-mechanical

efficiency of the Faraday disc is state of the art 96% the losses in the system may make it difficult to get the loop gain over 100%. N machine output increases as the square of the voltage or speed but mechanical losses consist of constant factors which are speed invariant and mechanical N machine output must be high enough to overshadow all the constant and speed variable losses. Examination and digestion of the parameters and figures shows it may be necessary to have electrical output of the N machine in the 30 - 40 kilowatt range before a Faraday disc N machine combination could self-sustain. A d.c. machine such as we are using for a drive motor has too many losses to be considered for a self-running combination.

The self-running combination will probably require a drive motor with reduced back e.m.f. compared to the Faraday disc with the same mechanical output. For some years I have been advocating the use of a motor with such characteristics. This is covered in reference (2). A permanent magnet version of this machine has been built which operates and shows interesting characteristics.

Back e.m.f. is generated in the Boning motor from the N effect voltage generated in the central axle which is both magnetized and rotating. This voltage subtracts from the applied voltage which is causing the motor to rotate. As can be appreciated from the geometry of the situation this back e.m.f. can be made 25% of that which would exist if a Faraday disc were used to the same diameter as the Boning spiral in an inside out Faraday disc motor. It is clear that if a principle of energy extraction is operative as an electrical generator, that same principle could be applied in the form of an electrical motor with reduced back e.m.f.

Conclusions: The object to develop an N machine electrical generator of high power capability and useful voltage output has been realized with the N-1 unit. Further measurements will refine the understanding of this. Exact torque measurement will remove uncertainties from the exact power gain of this unit. Future work on the rotor will attempt to achieve high dynamic balance so the unit can be run a designed speed without excessive vibration. Research on the self-running machine will continue with the study and further construction of the Boning motor. As work continues additional reports will be issued. The N-1 rotor unit is a manufactured item and is available from the DePalma Energy Corporation.

Bruce E. DePalma, 6 January 1988, Santa Barbara, California

References:

- (1) Notes On a Unipolar Dynamo; by Nikola Tesla; The Electrical Engineer, N.Y., Sept 2, 1891. Reprinted in Nikola Tesla, Lectures, Patents, Articles; Published by Nikola Tesla Museum, Beograd, Yugoslavia, 1956.
- (2) A Novel Form of D.C. Motor; Wireless Engineer, November 1952, Vol. 29, No. 350.
- (3) <u>Electrical Power Generation From Absolute Vacuum;</u> by Paramahamsa Tewari, Dept. of Atomic Energy, Nuclear Power Board, Bombay, India.

A high quality videotape documenting the experiments described in the paper will be available from DePalma Energy Corporation. Format NTSC or PAL

THE BALANCING CIRCUITS Of L.E. Eeman and Peter A. Lindemann Compiled from the BSRF files by Tom Brown

Around 1920 Englishman L.E. Eeman pioneered a system of healing based on the bio-energy fields of the human body. He discovered that connecting body extremities with insulated copper wires had many beneficial therapeutic effects. Eeman published his experimental findings in 1947 under the title COOPERATIVE HEALING. Since then, a growing number of physicians and lay health practitioners have used his discoveries with amazing results.

Briefly, Eeman reported these basic reactions. First, the body as a whole seems to act like a large but very weak (subtle) magnet with polar activity confined to the hands, feet, and spine. "This body behavior which suggests bi-polarity is automatic in both sexes, in health and disease, and it manifests in the absence of artificial energy and not only independently of suggestion but even against it." Secondly, in right-handed persons, the head, right hand and right foot usually exhibit the same polar effect (in 99% of humans - there have been rare exceptions). Eeman called these the Positive Poles. With this established, the sacrum, left hand and left foot became the Negative Poles. Thirdly, "..any arrangement which connects polar opposites is referred to as a relaxation circuit and any arrangement which connects polar similars as a tension circuit. The relaxation circuit automatically promotes relaxation of the voluntary muscles and stimulates functional activity. It fosters sleep and recovery from It also increases capacity for work and health in general."

The etheric energy of the body, termed the X force by Eeman, flows around "blockages" when in circuit. Eeman's researches went beyond the use of the relaxation circuit by one person alone. He went on to show that two or more persons connected together by relaxation circuits had a strong tendency to normalize each others' weaknesses, automatically.

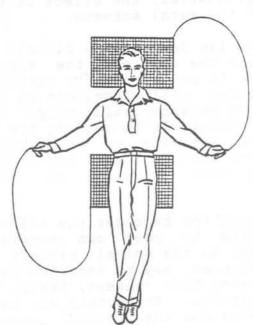
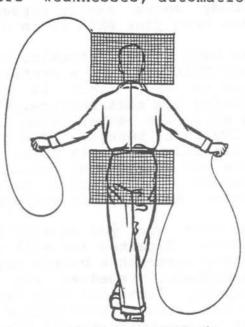


Figure 1 -One subject in relaxation circuit, showing copper gauze mats and wire connections.



-One subject, mats linked under spine.

Figure 2

The basic circuit devised by Eeman is as shown in Figure 1. Eeman found through further research that if he connected the head with the sacrum using a third wire as shown in Figure 2, the circuit was more effective. He felt that the X force is more effective when passed near to the spinal cord, rather than through it. (See pages 79-80, Cooperative Healing) Eeman suggested that the feet be crossed to short circuit the opposing polarities in them. Some people find it uncomfortable to keep the feet crossed and a screen is sometimes used which is large enough to set the heels of the feet on.

Present day researcher Peter Lindemann has developed the Core Energy Polarizer Circuit in which he optimizes Eeman's principles of bio-circuitry. The Core Energy Polarizer circuit allows for maximum effectiveness using metallic conductors to guide the flow of the body's etheric energies into balance. The Core Energy Polarizer is a natural energy balancing apparatus consisting of three separate lengths of insulated wire with a 6" square of copper screen attached to each end.

It may not always be desirable to be in circuit with others and the C.E.P. is designed for solo use. This allows maximum control over your own energies. The Core Energy Polarizer circuit is for right or left handed polarities. Peter has developed a truly universal circuit.

For those interested in the ideas presented by L.E. Eeman and Peter Lindemann we provide these suggestions for research. Borderland Sciences makes no therapeutic claims for use of any of these circuits. We at Borderland have used them and find these circuits quite stimulating and a worthy avenue of research.

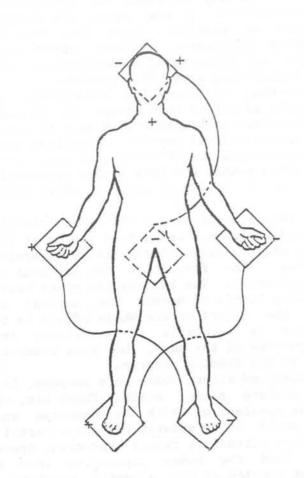
Learn to experience your personal energies. Find a comfortable location and a quiet time and lay the wires and screens out in accordance with one of the following diagrams. Lie down on the screens for between 30 and 90 minutes at a time. Do this as often as you desire or until you attain the effect you want. The bioenergetic flux of the body moves easily through clothing, however, the effect is the strongest when your skin is in contact with the metal screens.

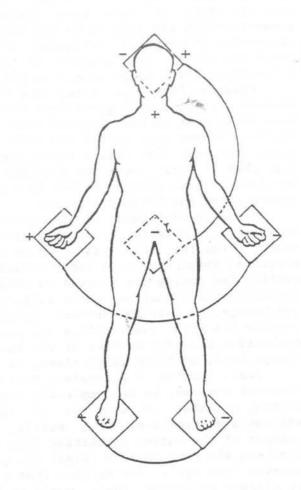
The best way to determine how long to lie down in the circuit is the FUNCTIONAL way. At a certain time during the session, the effect will seem to end. This is the best time to get up off the circuit. Then, during the next session, the same thing will occur, and so on. In this way, the exact time length of each session will vary. To obtain the most benefit from a balancing circuit it is best to try to become sensitive to this primary FUNCTIONAL activity of your body. Below are two diagrams of relaxation circuits that will work for either right-handed or left-handed persons. Try both circuits in your researches. See which is optimum for you.

The more work you do with these circuits the stronger the effects will become. Repeated use will sensitize you to your own energies. For further research a bottle may be inserted in the spinal circuit in which homeopathic remedies and flower essences may be inserted into your circuit. Eeman did many experiments using this concept, though he put the bottle in various places in the circuit. The bottle can have two pins or two coils at the break in the wire and the radiant energy of the inserted substance completes the circuit.

Sequence "A"
Head to Sacrum
Right Hand to Left Foot
Right Foot to Left Hand

Sequence "B"
Head to Sacrum
Right Hand to Left Hand
Right Foot to Left Foot





Copyright 1988 BSRF, Inc. The name Core Energy Polarizer is the property of Peter Lindemann. For more information on the use and effects of Balancing Circuits we recommend Eeman's COOPERATIVE HEALING (\$27.50 plus \$2 P&H from BSRF). We are not supplying Balancing Circuits at present, but present this information for the Borderland members to pursue their personal researches. We look forward to hearing about your experiences. If there is sufficient interest in supplying these circuits then we will do what we can to provide them. The BSRF booklet on the work of L.E. Eeman is undergoing revision. We have helped Health Research publish the original COOPERATIVE HEALING, and the new edition of our pamphlet will be retyped and incorporate a series of L.E. Eeman's lectures donated by Leslie Patten who is working on a book about Eeman's life and the trail he blazed, due fall of 1988. Thanks to Peter Lindemann for his input to BSRF on this subject.

MESSAGES FROM THE SPACE BROTHERS? HERE'S SOMETHING TO THINK ABOUT By William L. Moore

One of the most curious sidelights of modern UFO research is the alleged psychic channeling of "messages" or "contacts" from presumed "Space Brothers" or similar UFO-connected entities, to (or through) human beings. Literally thousands of individuals from all walks of life have claimed such experiences. In most cases, the alleged communications are said to be for the general good of mankind. Many fall into the categories of mystical religious or semi-religious experiences. Almost invariably, those who accept the content of such messages as being valid communications from extraterrestrials do so solely on philosophical rather than scientific grounds.

Speaking from the other side of the fence—that of so-called scientific, or evidence oriented UFOlogy—I feel there are a couple of points that ought to be made here which seem to have largely been ignored (or perhaps unthought of) by many of those who have become part of the mad rush to blindly accept alleged psychic channelings from space entities. Not that I reject such channeled messages out of hand, mind you. It's just that I feel there are a couple of things which people who have become personally involved in such things (either as a participant or a believer) ought to think about before going any further with it.

Consider the case of the scientist, the rat, and the maze. In this classic experiment, a maze is constructed with a rat placed at one end and a food pellet at the other. From the scientist's point of view, the object, quite simply, is to determine something about the rat's intellectual capabilities. The fact that the rat ends up getting fed during the process is really quite incidental. The rat, on the other hand, perceived the situation quite differently. Knowing little of humans and nothing of psychology, he quickly becomes convinced that the object of the whole affair is to provide him with food. Since his primitive brain is incapable of perceiving and evaluating the true motives of the human or the purpose of the maze, he soon comes to accept both, on blind faith alone, as incidental to the feeding program.

Next, imagine a malevolent race of highly advanced aliens whose sole purpose, for whatever reasons, is to completely conquer and enslave planet earth. There are, of course, a number of ways to go about his, the messiest of which is unwanton and wholesale destruction. More subtle, however, would be to quietly deceive a certain segment of the native population into believing that aliens are really benevolent Space Brothers who have come to "save" the planet and lead the human population into a utopian "New Age". And knowing that a significant portion of the planet's population is already expecting their world to be "saved" by a Second Coming, what better way to accomplish a complete takeover than to stage just such an event at precisely the right moment, thus setting the conditioned faithful effectively against the "heathen" of the world who would oppose such a move.

Now I don't mean to suggest here that any of this is necessarily true. I'm simply trying to point out that those on the receiving end of alleged channelings from presumably benevolent Space Brothers really have no way of determining what the true purposes and motive are of those on the sending end. It is only possible to know what "they" say their motives are. Whether "they" can be trusted is quite something else again. (In other words, is the true object ultimately to feed the rat or to stimulate specific behavior patterns?)

In the final analysis, until the human race manages to come up with some reasonably foolproof way of determining what's really going on up there, perhaps it is best to maintain a skeptical posture toward accepting any collect calls from presumably benevolent Space Brothers, and seek knowledge through safer channels.

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COUNTERSPATIAL ENGINEERING

By Jay Christopher

Much confusion exists today regarding what, in fact, radionics is. One school of thought proposes that it is more physical and thus requires advanced electronics to "do it right". ("But 'psychic boxes' will work by overwhelming them with the power of suggestion...") On the other hand there exists the concept that the equipment is necessarily superfluous and that only psychic principles operate.

This writer wishes to propose a simpler view--admitting the reality of both viewpoints--that radionics is the "Engineering of Counterspace." The sense here implied is that intention in the form of a pattern of relationships acts on the geometries of space and counterspace, as a primal polarity of manifest and unmanifest; process vs. substance.

Ideally, therefore—the etheric forces would be accessed purely through projective geometrical resonances less the need for "modern" digital readouts to lend an air of orthodox scientific validity. Integration of computer technology from the mirror—world of the subsensible serves to blur the underlying dynamic polarity interchange between positive and negative matter (physical and etheric). In their intense desire for authoritative approval from the "high priests" of scientism (where none would ever be forthcoming) some individuals may overlook the complete revision of thought required for any true insight into the "how" of radionics.

Why not create—as a departure from traditional instrumentation—a resonant device integrating into its "circuitry" the principles of positive vs. negative matter inherent in the art of radionic potentization. This process has already successfully shown that etheric "substance" may be created through use of adaptations of existing equipment, such as produced for use with Malcolm Rae cards in England. The operative principle then would be the resonance of geometry with the poles of positive (manifest) and negative (unmanifest) matter, process and substance.

Such equipment would reflect on the physical plane supersensible realities as opposed to the mirror-realm of gravity-bound forces. Solidly grounded, qualitatively meaningful radionic equipment would then equally be of both worlds, spiritual and physical. By analogy, this sort of tool would be more "plant-like", and live in the world of dynamic interchange between space and counterspace. True etheric science must be modelled after the primal polarity inherent in the very definition of the realm of the etheric.

Future articles will show how the above proposed ideas may work in practical reality, and according to primary polarities. Solid successes reflecting the above concepts should be credited to the weather engineering of Trevor James Constable and the Golden Ratio Antennas of Eric Dollard.

DOES AGRICULTURAL PSYCHOTRONICS REALLY WORK?

By William S. Peavy, Ph.D. Agricultural Consultant

Modern agriculture is beset by many problems including :

(1) pollution of food, feed and water by pesticides, herbicides and microorganisms and food additives,

(2) deficiency of one or more of the 16 essential nutrients in the soil,

(3) excessively high levels of one or more of the chemical elements in the soil or water, such as sodium or selenium, causing toxicities or soil physical problems,

(4) water penetration problems in the soil,

- (5) poor soil physical condition (poor aeration, low organic matter, low water infiltration rates),
- (6) insects and diseases,

(7) weeds,

- (8) adverse weather conditions,
- (9) usury financing by borrowed capital,

(10) marketing problems, and

(11) sufficient labor, especially for hand-harvested crops.

Agricultural psychotronics claims to be able to solve or help solve problems (1), (2), (3), (4), (5), (6) and possibly some of the others. Solving even one of the above problems would be an impressive achievement and a great benefit to farmers and those who consume farmers' products along with cleaning up the ecosystem.

Agricultural psychotronics is the study of the manipulation of subtle energies in agriculture to solve problems that occur in growing crops and animals by a trained operator who uses electronic-like devices.

Psychotronics holds that minerals, plants, and animals emit subtle radiations which can be tuned into, much as you tune a radio to bring in a certain station, that a healthy plant has a normal frequency or vibration called a "rate", that sickness manifests as an abnormal frequency and that a trained operator with a properly-made psychotronic device can broadcast a normal frequency to a sick plant or animal that restores the normal, healthy frequency so that recovery results.

Impressive claims are made for agricultural psychotronics: Source "A":

(1) "Many of our customers use the 'ABC' Analyzer...to clean the broiler's feed or herbicides and pesticides."

Does "clean" mean to neutralize the herbicides and pesticides? What is the proof of this and where are the numbers? Was response measured in terms of improved health, vigor, gain of the birds and/or chemical analysis or feed before and after treatment or was it a subjective evaluation? Are the molecules of the poisons changed into harmless compounds or is it just that their energy radiations changed to harmless frequencies?

(2) "The "XYZ" device is designed to balance the soil...to aid the plants in their transmutation of elements into what they feed upon. It is not necessary to use fertilizers when the "XYZ" device is used."

What does "balance the soil" mean? Transmutation statement: Is this a claim that with aid from the device, a plant growing in pure sand (silicon dioxide)

can change the silicon dioxide into the 13 essential soil-borne nutrients plants must have for normal growth? What is the proof of this? No fertilizer needed when there are serious shortages of the 13 essential soil-borne nutrients in a soil? How can the device supply the missing elements? Is it the elements that are missing it is supposed to supply or the energy frequencies associated with these elements? If the crop is corn grown in a poor soil but a good yield had by use of the device, can the corn grain be analyzed by chemical analysis and found to have a normal composition?

Source "B":

This source claims worms in ears of sweet corn can be destroyed while eating away in an ear of corn leaving only a drop of water in place of the worm.

Source "C" and "D":

Both these say things similar to Source "A". They all state how their instruments balance the soil, raise the energy levels of plants, animals and the soil but fail to say if these are correlated with better yields in most cases and if this correlation is made it is vague as to how much more yield or how much more quality and what the value of the treatment was in dollars after paying for the cost of the treatment.

What about hard data from controlled field trials where 4 treated strips and mixed in with 4 untreated strips or fields, then each strip or field harvested separately, the yields for treated vs untreated averaged, then compared?

To make sales of a new method or device you must first gain credibility. In agriculture, you gain credibility by properly planned and properly carried out field trials where treatments are random and replicable. University agricultural workers (active or retired) are qualified to do this type of research and when results are positive, have the credibility that sells new ideas, methods products or devices.

In changing human states of consciousness and even healing, such hard data as described above may not be necessary or may be extremely difficult to come by. But in agriculture, the methods and approach is direct, easy to carry out and easy to evaluate. Take a big orchard that has been plagued with insects. You select 8 strips (rows) with buffer rows between, randomly arrange these rows, take an aerial photograph of the orchard, cut out strips containing images of the 4 to-be-treated rows and place these strips of photographs in the treatment cavity of the instrument, set the dials and treat the strips to destroy the insect. Then go out and make counts of insect infestation every day for a week. Then keep a record of the bushels of fruit harvested from treated vs untreated strips and not the quality. When treated strips have yields and quality equal to the best sprayed orchards then you've proved a fact of enormous importance. Cost? Plenty! but simpler tests can be made using short rows of garden vegetables 5 to 10 feet long each. With these small plots you can stand on a stepladder to take the photos rather than hire an aerial photographer.

The question is: who is going to do this important work and when?

(Wm. S. Peavy is editor of <u>ABUNDANT LIVING</u> newsletter, published by SMA Consultants, 7900 Florida Drive, Vancouver, Washington 98664. Write for free information on this newsletter which covers such subjects as Nutrition and Health; Natural Health Maintenance; Electrical Nature of Life; Our Spiritual Connection; Alternative Energy; Economic Survival; and more. <u>ABUNDANT LIVING</u> will be published quarterly, \$15/year.)

The Electrical Mechanism of the Ether

By A. Press, B.Sc.

HE electrical theory of Maxwell was based on the assumption that when a body was electrihed something in the nature of a displacement passed from the body into the ether, and from the ether to some other material object or objects said to be thereby oppositely electrified.

That the displacement was not material, that is, it had no weight, went without say-

forces that act wholly and entirely on the parts of the ether medium itself.

The question can arise whether electric-

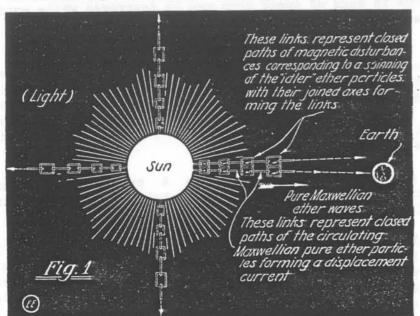
The question can arise whether electricity as such can exist apart from matter. Heaviside is decidedly of the opinion that it cannot. We know that like charges repel each other and therefore the functions of material bounding surfaces for the other appears to be to keep the like elemental charges together. Just how this property

force being set up, yet single negative electrons have been observed. Again, if the electron or atom of electricity were of the imponderable ether substance then there is difficulty in accounting for the elemental electric charge keeping itself intact; for even an electron is supposed to have dimensioned it was from this latter sort of consions. It was from this latter sort of consideration that Heaviside foretold that the observable electron would be found to have a material nucleus. It would also seem to nullify the earlier electric particle hypothesis of Maxwell.

esis of Maxwell.

Strange to say in attempting to form a physical picture of electrical displacement, Maxwell himself imagined a sort of purely ether particle which bears a very close resemblance to Lorentz's electron particle. However, such makeshift devices, for such they are, do not by any means enable us to explain how mechanical energy can be converted into electrical energy or how electrical energy, such as the electro-magnetic light waves from the sun, can be transmitted through space to be thereafter transmit. mitted through space to be thereafter trans-formed into work in the service of man, or how even to interpret matter in terms of the ether.

Both Lorentz and Maxwell imagined their ultimate electrical particles to be of such a nature that, in what are called dielectrics or insulators, the electrons are only capable of moving a very short distance from their normal state of equilibrium; whereas in conductors, such as copper, the electrons were considered to be free and capable of being set in motion by appropriate etherial or as we would now express it—electromotive forces. Such forces, as has already been indicated above, are not to be confounded with the mechanical forces such as pressure or inertia. Yet when a conductor passes through a state of the ether called a magnetic field, the electrons in the conductor are assumed to be impelled in a cer-Both Lorentz and Maxwell imagined their a magnetic held, the electrons in the conductor are assumed to be impelled in a certain direction. So far as the electrons are concerned, it is an electro-motive force that causes the electrons to travel through what are really the large-sized pores of the metal; but so far as the copper or material conductor is concerned it is a Newtonian mechanical force or pull that will be found



A Schematic Representation Showing How the Pure Maxwellian Ether Waves Pass Thru Interstellar Space from the Sun to the Earth with Velocity of Radiant Light or 186,000 Miles per Second.

ing, for with the most delicate chemical balance no difference in weight could be detected. It, therefore, had to partake of an ether-like displacement because the ether

an ether-like displacement because the ether is supposed to have no weight.

Maxwell conceived the idea that it was this mysterious displacement, by an unrevealed physicial mechanism, that caused electrified hodies to be attracted or repelled according to the well-known material Newtonian laws of mechanics.

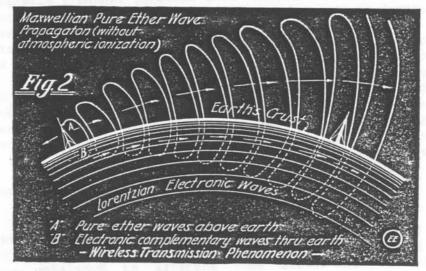
Whereas, the electrical displacement itself is intangible as it were, because it involves the ether only, forces always very visibly manifested at the material bounding surfaces of the ether were conceived to take place by virtue of a special displacement mechanism which Maxwell assumed. This displacement mechanism was considered to be located in the ether itself rather than in the electrified material bodies.

Forces there must be in the ether, but it

Forces there must be in the ether, but it is necessary to remember that we can make is necessary to remember that we can make sure of their existence only by mechanical reactions of the ether upon material bodies. When the forces wholly refer to the ether they are designated as "generalized" forces. Thus, although an electro-motive force is regarded as setting up a flux of electric displacement this force cannot be considered a true force in the Newtonian sense, for matter is not involved, except indirectly. The mechanical or Newtonian forces that are observable on electrified bodies always imply matter. Electrical instruments are employed it is true to measure E. M. F.'s (potentials) and currents, but it is very obvious that what we are really measuring are the reactions of the ether upon material bodies and not the is maintained is at once one of the mysteries

and distinguishable properties of matter.

In the newer theory of Lorentz, electrification or displacement is said to be due to electrons. In the first place it is difficult



The Complex Action Occurring When a Wireless Wave Speeds "Over" the Earth and "Thru" it, by Virtue of Pure Ether Waves (Above) and Electronic Propagation Below the Earth's Surface.

to see how any portion of electricity can manifest itself except by a material reac-tion which can account for a Newtonian

necessary to be applied to set up the electronic displacement. (Continued on page 374)

THE ELECTRICAL MECHANISM OF THE ETHER.

(Continued from page 326)

(Continued from page 326)

In the dielectric or insulating medium of a condenser the electrons are considered tied, as it were, to the material atoms or molecules of the insulating medium. They are not supposed capable of extended migratory movement from the individual atom. Thus for an alternating E. M. F. large current volumes can be set up but cannot, however, be maintained unidirectionally to any considerable extent. Of course, in conductors this limitation is not present and the electrons are free to travel in a complete physical circuit.

The question can also arise as to how an

The question can also arise as to how an alternating current can be maintained when there is nothing but the ether between the plates of a condenser. Would such a medium constitute a perfect insulator? The answer for an alternating E. M. F. is, "No." In fact, besides the Lorentz electrons, with, however, a material nucleus added, one must, because of this, fall back on a true Maxwellian, purely etherial displacement. According to modern electron theory the true Maxwellian, purely etherial displacement is always present in a dielectric, but superposed upon it in material media is an electronic displacement, with a material nucleus. The original Maxwellian displacement was structurally undefined. In insulators the electrons are ticd, but in material conductors the electrons are free. It would be expected that since the electrons have a The question can also arise as to how an conductors the electrons are free. It would be expected that since the electrons have a material core that these elemental charges should be associated with material media, but the true ether displacement currents of Maxwell, in which the material core is absent entirely, offers considerable difficulties to our understanding or rather visualization.

In the older theory, such as that of Ampere, the current flowing in a conductor was considered to be altogether distinct from the current flowing in a condenser. It was Maxwell who insisted, however, that a condenser current in the insulating medium itself must set up magnetic effects equivalent absolutely to those set up in a conductor of like current capacity.

Nowadays the conductor current of Max-

Nowadays the conductor current of Max-Nowadays the conductor current of Maxwell's mysterious days is pictured as being due to an electronic stream of particles having a material nucleus, but the old purely etherial condenser current of Maxwell has still held its ground but superposed upon this current notion is the one in which, for material dielectrics, electrons are in addition considered to be displaced to a limited extent just as in the old Maxwellian ether displacement current.

In considering the manner in which light

In considering the manner in which light reaches us from the sun, since this is underreaches us from the sun, since this is understood to be an electro-magnetic wave phenomenon, it would appear to be really of the nature of a true Maxwellian (or pure Lorentzian) character. That is to say the light waves in leaving the sun pass out like straight line streamers of a reeled off link chain in all directions. The one set of links lying in a plane, see Fig. 1, represent the displacement circuits of electricity, which Maxwell pictured as due to a flux of pure ether particles in such a circuit. ether particles in such a circuit.

On the other hand the links looping the first set of links in a plane perpendicular to the latter, represent the closed paths of to the latter, represent the closed paths of magnetic disturbances which Maxwell considered was due to what he called "idler" ether particles. Now, in considering electro-magnetic waves set up by an aerial in wireless telegraphy, the original displacement loops are not considered to lie wholly in ether, as they must do when electric. in ether, as they must do, when electric waves in the nature of light are sent out by the sun.

In wireless work such displacement loops are partly true Maxwellian (i.e. they consist of a pure etherial displacement in

ether) and partly what one might call Lor-entzian, or modified Lorentzian, because a entzian, or modified Lorentzian, because a portion of the loop path passes through the earth. That part which passes through the earth would be due to electrons according to modern theory, whereas the remaining part in the ether, or air, would only be due to electrons if the air was what is called ionized; otherwise the actual electrical displacement in the ether part of the circuit would have to be considered pure Maxwellian. wellian. The

wellian. The difference apparently between a Maxwellian ether particle and a Lorentzian electron is that Lorentz's electron is supposed to account for the electrical conductivity in solids, liquids and gases or what is called ionization, whereas Maxwell's ether particle is supposed to account for the normal etherial conductivity. mal etherial conductivity.

VIOLET RAYS NEWEST FORM OF ELECTRICITY FOR YOUR OWN PERSONAL USE The VIOLETTA HIGH-FREQUENCY GENERATOR is used and sodoreoliby thou-sands of physicians. It suc-rates the Violet-Ray High-Frequency Current which is used with wonderfully quick results for fasial, seeip, and te for our IN DEALERS RESI AGENTS Bleadon-Dunn Co., 208 N. 5th Ave., Chicago, Ill.

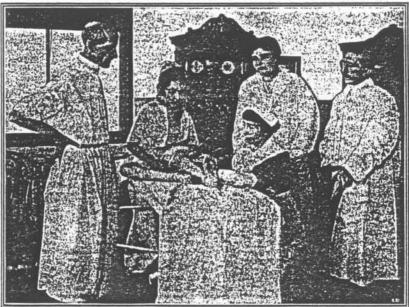
November, 1916

Electricity in the Treatment of Infantile Paralysis

The plague of infantile paralysis wellnigh succeeded in thoroughly alarming the entire country during the past summer. Hundreds of new cases sprung up overnight, as it were, and it seems to be the consensus of expert opinion that once the germs have started in their deadly work

ratus, so that the physicians and nurses can at once obtain any certain form of current. Besides the direct application of electric currents of certain wave form and voltage

for the relief of muscular paralysis, there are also available a number of special devices. There are motor-driven manipulat-



Electricity Has Helped to Alleviate the Suffering of the Thousands of Children Stricken with "Infantile Paralysis" and Here We See a Little Miss Receiving Such Treatment.

very little can be done towards alleviating the suffering of the unfortunate victim.

Some measure of success has been effected by spinal injections of blood taken from persons who have previously had the dis-ease. However, there has to be a vast amount of muscular manipulation adminis-tered to those afflicted with the disease, and a great deal of good has been undeniably accomplished by this method of treatment.

Artificial stimulation of the muscles and nerves has been carried out in a number of instances at some of the leading hospitals by means of electric currents of the proper kind. The photograph shown herewith ilkind. The photograph shown herewith il-lustrates how electric current is applied to a child suffering from the infantile paraly-sis, the current being here applied through two dampened sponge electrodes. Various strengths of Galvanic, Faradic and sinusoi-dal currents are available from the elabo-rate switchboards shown in the background. These switchboards contain the necessary electrical measuring and controlling appaing machines to which the patient's feet are strapped, and while they sit in a chair in front of the machine the apparatus works the limbs back and forth. In many cases there is permanent relief from what promises to be a serious case of muscular para-

lysis.

Professor Finsen, of the Finsen University, has successfully demonstrated that the ultra-violet light, produced by his arc light, which is of special construction, has the effect of curing infantile paralysis. It has also been shown that, by employing sunlight which passes through cobalt glass in such a manner that it is applied directly over the point where the paralysis is most acute, good results may be obtained in many instances. stances.

It is hoped that in the near future our American physicians will start a thorough investigation with regard to the use of ultra-violet light for the curing of this perplexing ailment so little understood at present, both with respect to its causation, germination and cure.

ETHER RADIATING APPARATUS

An Apparatus For Therapeutic Use Without Direct Or Indirect Suggestion Oscar Korschelt of Leipzig. German Patent #69340, July 14, 1891

Translated from the German by Bodo Capeller, 1986

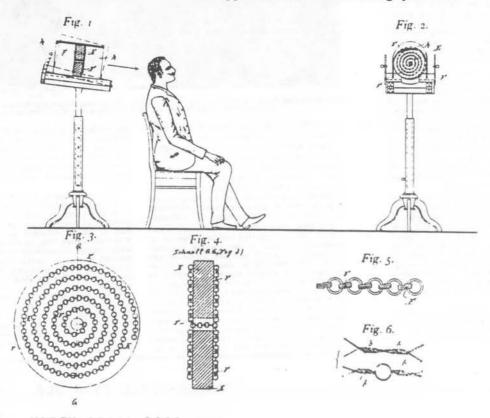
This apparatus utilizes the living forces of the ethers for healing purposes. The electro dynamic theory of Wilhelm Weber concerning the structure of smallest parts results in the insight that all ether is identical with Webers electric particles, that all solids rotate around it at a certain distance because of attraction of positive to negative ether particles in relation to solids. Through a corresponding arrangement of solids it ought to be possible to condense the diffuse ether and redirect it. A similar arrangement has been utilized in the following described apparatus which has been named by the inventor "Ether Radiating Apparatus".

This apparatus can be used for the purpose of increasing the intensity of the power of living ether. The difference between several versions of this apparatus is that of shape of materials used. In order to get increased power electric current may be used. Since the same appears to consist of positive and negative particles that try to find equilibrium, the amount of liberated ether particles within the wiring of the apparatus and the diameter of the wire formed ether vortex will increase with the spun off ether particles.

In drawings 1 through 5 an ether radiating device is shown. Within the apparatus the arrangement of the metal wiring is formed in a spiral that will cause ether particles to spin in a predetermined direction so that the living force can be utilized in many ways.

The version in drawing #3 shows the wire is formed in spiral configuration on both sides of plate E and is connected in the center. Through this arrangement the ether particles will accumulate in the center of the disk and be thrown forward. In order to achieve a longer path for the ether vortex one may utilize a chain instead of a simple wire which consists of horizontal displaced links (drawing #5). The disk is intended to cause physiological changes in humans (see drawing #1).

Patent request: An apparatus for therapeutic purposes with direct or indirect suggestion consisting of a non conductive disk (E), free standing or installed in a tube, where both sides of the disk contain spiral wound wire with the side toward the light exposed as the collector and the opposite the radiating portion.



Page 26, MARCH-APRIL 1988 JBR

SUN-ETHER DISC By Albert Zock

The German inventor Oscar Korschelt based his cosmic ether accumulator, German Patent #69340, dated July 14, 1891, on the teaching of Wilhelm Weber not realizing that it incorporated the implosion principle as well. Weber professed that all particles of the ether, having an electrical charge, are circling around solid objects without touching them, the molecular particles being negative and the ether particles being positive, according to the law of attraction and repulsion. Since a solid body attracts ether particles, Korschelt searched for a way to collect, condense and to rectify them.

On a wooden disc with a hole in its center, Korschelt fastened spirals of copper wire, on both sides, one wound clockwise and the other, as a mirror image, counter clockwise, and connected the ends together through the hole in the center. His assumption was that the collected energy would be condensed in the center and then be beamed off at a right angle to the disc. He termed the side facing the light positive and the other negative. To increase the condensation and lengthen the antenna, Korschelt wound small coils like key rings and assembled them like links in a chain. He was convinced this device would give additional life energy if the beam was directed at the neck of a person in the height where the 18 cranial nerves are leaving the skull, (medulla oblongata). Such a spiral resembles a Nornen coil, which is stretched out and is used to eliminate undesirable emanations.

An application of a Korschelt coil seems to have its merits. In one case a relative of an elderly man suffering an acute pneumonia, being already unconscious and according to his physician, beyond hope, hung a Sun-Ether Disc over his bed. From this moment, his condition improved rapidly. Fourteen days later, he was almost normal again. In another case, a Sun-Ether Disc hangs over the door in the waiting room of a Naturopath. Every one walking in is amazed over its warmth, and the flowers are flourishing like in a green house, even though it is not heated and faces north. When asked for the reason, the owner points smilingly to the disc and gladly explains how it works and how to build one.

On a plywood disc with a diameter of 50 cm (20-3/4 in.) are two coils, one on each side, wound in a mirror image, the front one counter-clockwise and the other clockwise, almost on top of each other. Both are connected through the hole in the center which has a diameter of 10 mm (6/8 in.). The space between each winding is 15 mm (5/8 in.). Aluminum wire is best. To make the key rings, take a 4 mm (3/16 in.) thick wire, fasten it into an electric drill and wind the armature wire around it tightly, by allowing the rotating wire in the drill to do the spinning. Make sure to wind the links for the front counter-clockwise and for the back clockwise. Then separate every fourth winding and cut it to get the links shaped like key rings. Now attach the rings onto one another like a chain. Each link will lengthen the antenna and work like an oscillator. Fasten the chain onto the board, using nails or screws, but to be accurate, give the chain a light tension so it will not slip off. Twist the ends in the hole together, or better, solder them. The counter-clockwise winding for the front applies to people living in the northern hemisphere; in the southern hemisphere it might need to be reversed.

In Korschelt's time, some made "beam-handbags" carried on a shoulder strap. The material had to be framed to it could not move, then the spiral was embroidered and fasted to the inside of the bag, the whole bag measuring about 20×20 cm $(8 \times 8 \text{ in.})$ and the windings being 1 cm (3/8 in.) apart. Such bags were more powerful than the disc.

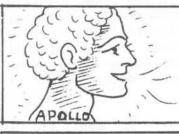
THE STORY OF THE 13th ASTROLOGICAL SIGN.

As told by Dr. W.G. Reimer and Art Yensen



GRATITUDE! After all it was ME, AESCULAPIS, who found the secret of life-restoring herbs.

I recall it well. My father APALLO, bid me study medicine under CENTAUR CHIRO.



Son, you being mortal are also kindred to gods. So I have bid Chiron to mentor thee in medicine. So be it.



YES, upper and lower limbs have three bones each. Two from hands and feet leading to one, thus showing the trinity of man.

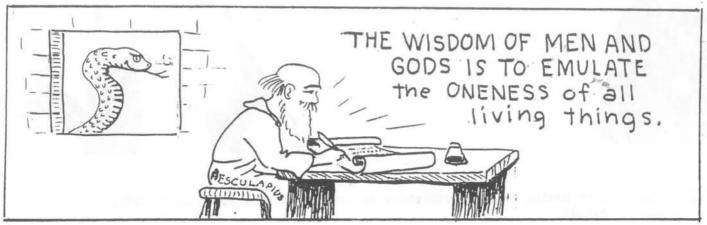
know thou that skulls are depositories of divine Wisdom? Bone head mortals are reflections of the etheric crystal skulls, of the GODS.

RESCULAPIOS

QUIZ next week.

THE STORY OF THE 13th ASTROLOGICAL SIGN.

As told by Dr. W.G. Reimer and Art Yensen







INTERVIEW WITH OPHIUCHUS



Art Yensen: I am having trouble understanding just why we are doing this cartoon series.

Ophiuchus: Art, you may call me Ophie, as you would say in modern slang. Over the many hundreds of years, much gross misunderstanding in the occult and superstition areas has been inferred unto me and the 13th astrological constellation. Even in my time, the politics of the Gods themselves, as you would say, added question to my esteem and the meaning of the Zodiac. Art, to put it bluntly, I was given a raw deal.

Art: I see, and why have you chosen now to speak?

Ophie: Your planet earth is in a growth and cleansing process marked mainly by earth movements, storms and so on. Your earth is alive, you know.

Art: What you are trying to say then, is that it is not a doom's day situation?

Ophie: By the "Gods" No! Fear and ignorance are the perpetrators of such nonsence.

Art: In your day you had the same thing?

Ophie: Almighty correct. For example, the Gods of my time held the serpants in awe for they viewed them as having the power of death and the secret of life.

Art: Ignorance prevailed in those day too?, in the days of the Gods?

Ophie: Not in that frame of saying, for at that time symbolism was used in communicating concepts.

Art: Much like cartoons of today! Well, back to the question as to your part in what's happening in the earth's changes.

Ophie: In your earth time on September 7, 1977, a great explosion was recorded and reported in my constellation. This was relayed to your media by the Anglo-Australian observatory in Siding Spring, Australia.

Art: Zeus? up to his old tricks?

Ophie: There is more to it than that, Art. It would take more than a lot of humor in your cartoons to explain it.

Art: Thank you Ophie. I understand more now from this interview and will try to cover your story. See you in the "Funnies!"

view from the BORDERLANDS

By Tom Brown

RADIANT ENERGY - "Physics teaches that matter can exist in three different states - solid, liquid, and gaseous; it neglects the fact that some of our greatest physicists have taught that matter exists in four states - solid, liquid, gaseous and radiant. According to the eminent physicists Michael Faraday and Sir William Crookes, when matter is in the solid state its constituent molecules touch and are adherent among themselves. In the liquid state the molecules of matter still touch, but are not adherent. In the gaseous state the molecules of matter are not adherent and are more widely separated from all others. In the radiant state of matter the molecules are still more widely separated than when they were in the gaseous state. According to Crookes, radiant matter constitutes in reality the limit where matter and force seem to shade off into each other!

"Modern science has now demonstrated the ultimate in the extraction of large amounts of energy from small amounts of matter, through the release of atomic energy - but atomic energy is only a further step in the logical sequence of the development of the different states of matter; homeopathy deals with the conversion of matter into energy in a gentle, constructive fashion whereas atomic physics deals with the conversion of matter into energy in a dangerous manner, difficult to control." Mark Gallert in An Introduction to Homeopathic Medicine, unpublished.

The radiant state of matter can be thought of as the warmth ether, or fire element. This does not mean that a destructive burning must take place to release the etheric from the elemental. In homeopathy the rhythmic motions used to make the remedy are all essential for they provide the gateway from elemental to etheric. In electrotherapy, one is working with the etheric, radiant energies. These energies can be harmoniously formed from the ether or they can be forced. A good example of this is the work of Georges Lakhovsky. It appears as though Lakhovsky was one of the first to work with log periodic antennas, and the original multiple wave oscillator was designed to create a wave in the ether that the body would be in harmony with.

For the last 25 years Borderland has been publishing a book on the Multi-Wave Oscillator. In that design the antennas were fed from a high frequency coil and they sparked away, "ringing" the various concentric rings on the antenna. Lakhovsky's theory is that in the center of every cell there is a small coil formation which had a frequency resonant to radiant energy oscillating in the radio broadcast range. The MWO would produce a spectrum of frequencies which the body's would find theirs and resonate just as one tuning fork will make another ring when held nearby. Perhaps the modern versions work but they are not what Lakhovsky was doing. Lakhovsky's patent for the MWO is vague, as could be expected for a patent, and will cover many variations. The pictures in THE SECRET OF LIFE (\$8.50 plus P&H) by Lakhovsky are quite specific and show what was really going on.

ROYAL RAYMOND RIFE - The late Royal Raymond Rife is getting his day in the spotlight. We should focus on what Rife was actually doing. As can be seen by the historical pictures in this Journal, from the 1920s to the late 1950s Rife was working with beam tube apparatus. I asked John Crane when Rife began using the square wave generators presented to the public in the early 1960s under the aegis of The Rife Virus Microscope Institute. His answer is that he himself (Crane) produced them and that Rife had only worked with the tubes. The historical record supports this view.

Lacking the actual equipment in hand our impression is that the beam tube was driven by an oscillating transformer. Tesla worked with a similar apparatus in which he excited a single terminal discharge tube, creating a longitudinal beam which shoots out the end of the tube. The beam is a conductor—a line of force into a subject via direct current longitudinal broadcast. By modulating the oscillator the apparatus brings the frequency into the body via broadcast through the inert gasses in the tube. These gasses have been put into their radiant state by the tube being resonant with the broadcast apparatus. Nikola Tesla worked on beaming longitudinal DC via this method, as can be seen in his patents for the Utilization of Radiant Energy (#685,957 and #685,958). We must look at frequency here as being more than one—sided. What is important in the Rife apparatus is that the gases were excited in a manner in which the body seemed to benefit. Perhaps reproducing the frequency that modulated the bulb and running it through electrodes will have effects, and we are open to research on this, but it is different from what Rife was doing.

The beam tubes are the fundamental unit and are distant from the square wave apparatus, just as what is presently known as a Lakhovsky MWO is a far cry from what Lakhovsky was really doing. We are interested in the correct historical truths. Rife was working with radiant energy, just as was Dinshah in another area of the spectrum. Lakhovsky was working with creating harmonic structures in the ether and not just a scattering of frequencies. Radiant energy comes to us daily from the sun. The harmonic patterns of the ethers provide the structures of the living surface of our planet. We naturally have what these pioneers were attempting with instrumentation. To produce what they were doing requires an eye into the etheric forces, not a better electronic device.

[Several good books for comprehending the etheric forces are Toward a Phenomenology of the Etheric, \$17.00; The Four Ethers by Ernst Marti, \$7.95; Physical and Ethereal Spaces by George Adam, \$6.00; The Idea of Counterspace by Olive Wicher, \$1; and Spiritual Science and the New Nature Forces by George Unger, \$2.95; + P&H on all books.]

ELECTRO-ALLOPATHY - To cure cancer in laboratory mice Rife would surgically remove the tumor and then treat them with the ray tube, modulated by musical, harmonic tones. This was not a mystical apparatus, but a form of electro-allopathy! To think that a square wave generator will cure cancer and AIDS by the simple application of some electrodes requires a long measure of faith and belief. This brings it into the realm of psychotronics (as opposed to the field of true radionics) and any effects could be psychokinetically produced from the mind just as easily as they could be provided by the machine.

We are not here to save people from themselves, but to function as an information channel. We hope to see research continue in all of these areas, and will provide as much useful information as we can find, but with a proper orientation as to where the ideas began and how the work is grounded to the living side of the universe.

HEALING FREQUENCIES - Mark Gallert's article on Royal Raymond Rife provides a view of Rife's real work. The focus here on Rife allows me to pursue some points that were made in last issue's CQC concerning electricity and the ethers. The preliminary information was provided, for anyone willing to look, that electricity is the subsensible form of the supersensible light ether. The externalizations of the soul force of mankind appears as electrical apparatus to do work which was once done by hand. (See the book Spiritual Science, Electricity and Michael Faraday by Ernst Lehrs, Rudolph Steiner Press, London, for insights into this. \$5.00 + P&H from BSRF.)

This "magic current" is being taken as a miracle cure by some. There is sufficient evidence available in the public domain to show that electricity does have beneficial effects on the status of the body. Electricity also has harmful effects, a fact becoming more evident as research continues. We must consider electricity a secondary nature force with beneficial and detrimental effects and uses. The soul force is the primary and has dominance over the physical when we are in harmony with it. Surely

there are precise frequencies that will produce beneficial effects in the body, (and detrimental also), but the information presented by Reich in his bion experiments shows that the life force itself stops the cancer cells!!! As Trevor Constable is quoted in Alison's article, "Dr. Reich identified this energy with the galvanic energies present at the skin surface." The electricity of the body is the natural form, the electricity from a dynamo or battery is an artificial form.

NATURAL ELECTRICITY - Ernst Lehrs, writing in MAN OR MATTER about early views by Volta and Galvani on electric fishes, provides insight into the nature of animal electricity. "The electric organ of such a fish consists of many thousands of little piles, each made up of a very great number of plates of two different kinds, arranged in alternating layers. The two kinds differ in substance: in one case the plate is made from a material similar to that present in the nervous system of animals: in the other the resemblance is to a substance present in the muscular system, though only when the muscles are in a state of decay. In this way the two opposing systems of the animal body seem to be brought here into direct contact, repeated many thousands of times.

"In the electric fishes, accordingly, sensation and will are brought into a peculiar interrelation. For as a result of the spatial fixation and the state of deterioration of its bodily foundation the animal's will-pole is related to its bodily foundation in a manner which otherwise obtains only between the nervous system and the psychological processes co-ordinated with it. These fishes have the capacity to send out force-currents which produce in other animals and in man 'concussion of the limbs', or in extreme cases paralysis and even death. When contemplated with pure observation this phenomenon tells us that in cases of minor strength, this force causes processes of a volitional character in bodies affected by it. Through stronger effects the organic system which serves the will of the creature involved passes into disuse, either for a time or for good. By describing the process in this way we realize that electricity appears here as metamorphosed animal will, which takes this peculiar form because part of the animals' volitional system is assimilated to its sensory system in an exceptional manner.

"It is known today that what nature reveals so strikingly in the case of the electric fish is nothing but the manifestation of a principle at work in the bodies of all beings endowed with sensation and volition — in corporeal terms, with the duality of a nervous and a muscular system — and therefore at work also in the human body. Observation has shown that the activities of these two systems in man and animal are accompanied by the occurrence of different electric potential in different parts of the body. Manifold in detail though the relevant observations are, they all confirm a definite correlation of negative electricity with the nerve-and sense pole (sensation) and of positive electricity with the blood-and-muscle pole (volition)." From MAN OR MATTER, (C) 1958 Ernst Lehrs, Rudolf Steiner Press, London. Available through BSRF for \$24 plus \$2 P&H. (NOTE: This book, as well as all other books from RSP, London, have gone through two price changes in the last six months due to exchange rates with England. MAN OR MATTER is certainly one of the most valuable books available to the researcher at the present time and should be read regardless of price. It covers radiant energy, the ethers, Goethe's science of color, the visual ray, etc.)

Thus we see that natural electricity is formed by processes which can be mirrored in non-living matter. But if we can have access to the primary form of the energy why pursue the secondary, and seek out that "magic frequency" that will cure AIDS, cancer, and assorted body clogs that go under fancy medical names? The answer is that everyone has their individual path to walk. Spiritual healing sometimes takes a long time, while an electronic device may get the person back on the track of their day to day life. The spiritual lesson of the sickness is buried for the future. Electricity is the subsensible force, but it is a real force with the ability to alter the functioning of the human body.

VITAMINS FROM THE COSMIC ETHER OCEAN - In THE NATURE OF SUBSTANCE by Rudolf Hauschka one will find a most interesting and well grounded view of material substance and its origin. Hauschka delves into the etheric realms of chemistry and biology and provides some areas of carrying on solid work with ideas such as presented by Ernst Lehrs in Man or Matter. One of the most interesting ideas provided in the book is that the vitamins are not chemical substances but are the cosmic ethers themselves. Hauschka explains that this is why there has been so much disagreement on what chemicals the vitamins actually are. If we have a lack of vitamins, however, we know the direct effects. Here is a chart provided in the book which shows the relationships. Notice that the carriers are given as portions of the plants and not specific chemicals.

		Ether	Carrier	Avitaminosis
Vitamin	A	Warmth	Oils	Stunting
Vitamin	В	Order	Hulls and peel	Beri-beri
Vitamin	C	Light	Leafy vegetables	Scurvy
Vitamin	D	Form	Lipoids	Rickets

Hauschka was a real world scientist and he provides the experimental evidence for all this. We go to the Newtonian spectrum of light to see how this is accomplished. Hauschka is well aware of the Goethean color-circle and points out the fallacy of the linear spectrum. However, he presents his view that the cosmic ethers can be related to portions of the spectrum viewed in a linear fashion. By using various chemical solutions he filters out sections of the spectrum and grows yeast cultures under the filtered light. The Warmth Ether is the infra-red portion, the Light Ether is the visible spectrum and the Chemical Ether is the ultra-violet portion. He filters out the Life Ether with a vacuum. The results are profound. He shows the direct relationship between the vitamins and the ethers, via photographs, charts and drawings, and that is only one chapter of the book! Hauschka also covers the reality of the four ancient elements, the chemistry of plants, the inverse coal tar chemistry that today infiltrates our lives, the cosmic origin of metals and elements, etc. THE NATURE OF SUBSTANCE by Rudolf Hauschka, Rudolf Steiner Press, London, available from Borderland for \$14.50 plus \$2 P&H. We are also now carrying the companion volume -NUTRITION by Rudolf Hauschka, \$14.50 plus P&H.

GENERALIZED BSRF NOTES AND UPDATES

- * This section has been retitled View From The Borderlands to replace Clips, Quotes & Comments. View From The Borderlands will continue as a forum for submitted material and editorial comments on past, current and future happenings. Let us know how you feel about the change and feel free to participate. The View From The Borderlands is a platform for YOUR VIEW TOO!! Clips, Quotes and Comments began as a separate serial to the Round Robin and Flying Roll publications of Meade Layne. Riley Crabb wove the various threads into the Journal of Borderland Research in 1959.
- * Last issue's article on AQUALITHIA has stimulated interest in structured water. We look forward to hearing from BSRF Associates on their experiences with their research projects into this. We put the closing date in that article for purchasing AQUALITHIA through BSRF as June 30, 1987, and it should be 1988, our apologies for the error.
- * PUBLICATION UPDATES The Lakhovsky MWO book and the MWO Update are now out-of-print. A new edition incorporating those books as well as the entire BSRF Lakhovsky file is in the works and should be done in a month or so. Riley Crabb's RADIONICS NEW AGE SCIENCE OF HEALING is now out of print also. A new edition is in the works incorporating the many writings of BSRF Associates since 1945. A few new books are in production including Sir J.J. Thompson's classic RAYS OF POSITIVE ELECTRICITY; a paperback edition of The Five Rites of Rejuvenation; and other projects are happening.

- * Thanks again for all the letters and packages of materials. Someday we hope to be able to sort it all out. A self addressed stamped envelope will aid in getting a reply from us. More correspondence comes in than we can currently handle.
- * All publications listed in this <u>Journal</u> need \$2 P&H for the first book and \$1 for each additional, surface. Double for first class. Foreign please inquire.
- CONTACTS This is your forum to contact those of like mind and to access sources of hard to find information. Please be courteous when responding, send some \$ or a SASE.
- * Hans Nintzel, 733 Melrose Drive, Richardson, TX 75080. R.A.M.S. Restorers of Alchemical Manuscripts Society. Hans has put together quite a listing of books for those pursuing the alchemical path.
- * Natural Energy Works, PO Box 671, Cedar Falls, Iowa 50613 (new address). Books on Wilhelm Reich, Orgone research and related information and materials. Write for information on summer 1988 workshops on Orgonomy with James DeMeo.
- * Herman Meinke, 23158 Cora, Farmington, MI 48024. This researcher has produced a report titled Advanced Research In Cloud-Busters. Available for \$25 with color photos.

NEW RESEARCH VIDEOS FROM BORDERLAND SCIENCES RESEARCH FOUNDATION - Come along with Borderland Sciences as we explore the science of tomorrow.

RADIONICS AND NATURAL HEALING: An Interview With Peter Lindemann. Peter is a dedicated researcher into the workings of natural energy and in this informal discussion with Tom Brown he presents his ideas on radionics and natural healing. Peter traces the evolution of his viewpoint from early work with various radionic instruments in Hawaii up to present day applications of his theory of natural healing. Along the way Peter has researched and developed many fascinating ideas including the symbology and pattern of radionics and the concept of accepting these patterns in a usable form. This video will provide the beginner or the "expert" ideas and concepts for further researches into the living fields of the human body. Peter demonstrates his radionic instrument which incorporates ideas from Copen, Drown, Dinshah and Eeman, and the viewer is guided to sources for designing and building their own. ISBN 0-945685-87-4, VHS, 1 hr, Col. \$39.95

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*** CALENDER FOR SUMMER OF 1988 ***

- * SEVEN CONTINENT DOWSERS, P.O. Box 192, Lansing, IL 60438. Come to the 7 Continent Dowsing School and Conference, on June 10-14, 1988. Subjects covered include Crystals, Neuro-Linguistics, Earth Energies, Pyraminds, Mystery Schools, Fire Walking, Kundalini, Huna, Radionics & much more.
- * 2nd INTERNATIONAL SYMPATHETIC VIBRATORY PHYSICS SYMPOSIUM, to be held in late spring or early summer 1988. Contact Dale Pond, Delta Spectrum Research, 4810 Airport Road, Colorado Springs, CO 80916.
- * INTERNATIONAL CONFERENCE ON PARANORMAL RESEARCH, July 7-10, 1988. Topics include Reincarnation, Psychic Experiences, Aliens, Non-Traditional Healing, Predictions of the Future, Public Awareness, etc. Contact the I.C.P.R. c/o Dr. Albertons, Room 203 Weber Building, Colorado State University, Fort Colllins, CO 80523
- * Planetary Association for Clean Energy, 191 promenade du Portage /600, Hull, Quebec J8X 2K6 CANADA, presents the Third International New Energy Technology Symposium/Exhibition on June 25 28th, 1988. Phone (819) 777-9696.
- * U.S. Psychotronics Association Annual Conference will be in Dayton Ohio July 20th 24th, 1988. Contact Bob Beutlich, 2141 Agatite, Chicago IL 60625 for more information.
- International Tesla Society 1988 Symposium will be held in Colorado Springs, Colorado, July 28 31st, 1988. Contact ITS, 330-A West Uintah Street, Suite 215, Colorado Springs, CO 80905-1095, (303) 570-0876.
- Figure 3273 E. 119th Place, Thornton, CO 80233, (303) 452-9300. Contact Dean