The Experimental Life Energy Meter: History, Operational Procedures and Suggested Experiments

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Introduction and History

The Heliognosis Experimental Life Energy Meter, or LEM, is a solid-state reproduction of the original Orgone Energy Field Meter, or OEFM, as developed in the 1940s by the late Dr. Wilhelm Reich. Reich described its construction and use in his book *The Cancer Biopathy*, (page 147-150 of the Farrar, Straus & Giroux 1973 reprint edition*) as part of a longer discussion on the objective measurement of an unusual new energy which he discovered in both the atmosphere, and as radiating from living organisms and some other materials. His early device used large sheet metal plates in a special parallel capacitor-type of arrangement, excited by an induction coil, with a light bulb and photometer providing an indication of the measured field strength of whatever was being measured.
* http://www.orgonelab.org/cart/xReich.htm

Using the OEFM and other methods, Reich was able to demonstrate variable life-energy charge or energy-field readings for both humans and other living creatures. This included the recording of the progressive loss of energy readings with the death of a cut tree branch, and a small fish. (*Cancer Biopathy*, p.149) His findings were suggestive of the later work of Semyon and Valentina Kirlian, who used photographic films to make images of the human energy field using a similar metal plate and induction-coil for exciting the life-energy field into a visible glow, or what has been termed a bio-plasma discharge. Reich's OEFM can be considered as an early analog apparatus for measuring what the Kirlian method revealed graphically on films.

My own early reproductions of Reich's original design, for the OEFM, basically validated his observations. Reich's OEFM, as I reconstructed it, operated quite exactly as he described it, and provided clear readings of the human energy field. It also reacted to metals and to water, as well as to other living creatures. My first reproduction of the OEFM was a primitive and heavy table-top design using a Tesla-type induction coil, and so did not allow determinations of variable field-strengths, as from one person to another. Later designs were more portable, hand-held varieties, and suggested the potentials of this device to eventually become a serious instrument for scientific and diagnostic health research. However, the Tesla induction coil which lay at the heart of the instrument, as we reconstructed it, always created irritating sparks and ozone, pushing the background life-energy field of my laboratory into a mild and temporary oranur effect (See the chapter on *The Oranur Experiment* in Reich's book *Selected Writings** for details). Our OEFM reproduction additionally was prone to giving both the test subject and the instrument operator the occasional jolting shock. As I was not skilled in electronic design, that is as far as my own efforts went, and other research dominated my attention.

* http://www.orgonelab.org/cart/xReich.htm

Approximately in 1990, I learned of the work done by the Canadian electronics engineer, Mr. Dave Marett of the Heliognosis* company, who had developed a similar type of life-energy meter, which used an electromagnetic oscillator of exceedingly low power for its excitation, and hence was silent in operation, did not create any ozone or shocks. This new Life Energy Meter, or the LEM, went through a variety of evaluations and improvements over the years, to arrive at the present-day design which is currently being sold commercially as an experimental meter. Neither Reich's original OEFM or the newer LEM reacted to standard electrostatic charge or to other electromagnetic fields, as would a millivoltmeter or an EMF meter.

* http://www.heliognosis.com

Experiences with millivoltmeters can reveal the life-energy field, as shown by scientists such as Harold Burr,* but these require instruments with direct electrode contact, and under exacting laboratory conditions where the subject must lie very still. Anyone walking about in the room will disturb the readings, which typically are at only a few hundred millivolts. One can also attach a metal plate to the positive pole of a typical millivoltmeter, and show the reaction when you approach it with your body, or just your hand. But in such a case, the readings will rise as you approach the metal plate, and then quickly fall off to zero. If you then move away from the metal plate, the voltmeter will again react, in the opposing polarity, and again fall back to zero. These types of readings with millivoltmeters have certain uses, and do also demonstrate the existence of the life-energy field, but only when it is in motion. Only the Reich-type of OEFM, as now reproduced by Marett of Heliognosis, will show a constant sustained reading of the life-energy field, showing it is not merely some kind of electrostatics.
* http://www.orgonelab.org/cart/xlifenergy.htm

The LEM detects, as Reich argued, a completely new parameter of our existence.

Preparing for Experiments with the LEM

Use the Supplied Power Source: The LEM can be used both indoors or outdoors, wherever a suitable connection to the power mains can be found. Experiments have shown it cannot be used with batteries, due to the necessity for a good earth grounding. Experiments have shown, it can be powered by an automobile battery, where the negative terminal also has a separate grounding rod into the earth. The voltage is not the issue here, so much as the grounding. We therefore suggest, especially for your first experiments, to use it only with the supplied power source.

Allow the LEM to Warm Up: When turning on the meter, allow it approximately 30 minutes to warm up, especially for more detailed readings. It will show typical reactions immediately after being turned on, but will be difficult to zero until it is warmed.

Keep Your Hands Away! If you bring your hand close to the LEM, it will react. This is fine if you are measuring your hands, but not good if you are measuring something else. So don't hold items in your hand as you measure them. Place them on the SMALL PLATE ELECTRODE or otherwise secure them with a holding system and move them closer or farther from the LEM using the GLASS TUBE ELECTRODE (formerly the Vacuum Tube Electrode).

Be Gentle! Every LEM is hand-constructed without mass-production methods. Don't force anything. Gently push the electrodes into the banana-plug outlets, and remove them gently. Do Not Drop!

The Easy Demonstrations: Human and Plant Life Energy Fields.

Experiment 1: Revealing and Measuring the Human Energy Field

1. Find a clear space on a desk or table-top where the LEM can sit all by itself, without nearby objects.

2. Attach either the glass-tube electrode or the flat-plate electrode, to the UPPER RED PROBE outlet on the back side. Set the toggle switch to the SMALL position.

3. With the meter OFF, plug in the power supply to the instrument and to the wall power outlet.

4. Turn the sensitivity RANGE to 1x. This will automatically turn on the LEM. Allow the LEM to warm up for a modest period.

5. After warming, set the FINE ZERO knob to half-way, at 3. With nothing touching or close to the electrode, slowly adjust the COARSE ZERO up and down until you observe the analog needle move. Set it to the zero position, using the FINE ZERO as necessary.

6. With these settings, the meter will now readily react to the movement of your hand towards the meter. You can touch the electrodes to get a maximal reading, which should not drive it above the 100% mark.

7. Re-zero the instrument as needed.

8. *The Handedness Parameter:* Using the Small Plate Electrode, on the wood support, compare the readings between your left versus right hand. It should show a slight difference, with a slightly higher reading for your dominant hand.

9. *The Vitality Parameter:* Compare the readings between different people. Those who do more outdoors manual work should give higher readings on their hands than those who work primarily indoors. We had one clear example of this in a seminar where about 30 people in attendance took turns measuring the field-strength of their hands. The strongest reading came from a man who was a bee-keeper. He had a good suntan, a relaxed posture with good respiration and open clear eyes, and overall radiated vitality and health. The lowest reading came from a man who worked indoors with computers all day, and who emphasized his "spirituality" and vegan diet to others in the room. He was very upset when the LEM showed his readings to be so low.

10. Increase the sensitivity RANGE to the 10x or 100x positions. With these settings, the LEM will now react, and probably be driven off-scale above the 100x, if you try and touch the electrodes. However, it will then reveal more dramatically the life-energy field at a distance.

Experiment 2: Scanning the Human Energy Field:

1. With the power supply and electrodes removed, examine the bottom of the LEM. Note the small hole in the middle. This is for attaching to a camera tripod or hand-grip with standard quarter-inch screw.

2. With the LEM secured to a camera hand-grip, attach the Glass Tube Electrode.

3. As before, warm and zero the instrument with a RANGE setting of 100x. Once it is warmed up, and while holding the LEM by the hand-grip at the bottom, with nobody else standing nearby, zero the instrument.

4. When zeroed, you can now move the LEM near to another person who must stand still and relaxed. You can scan their body from top to bottom, on front and back sides, and note there are variations in the field

strength unrelated to only distance. Re-zero as necessary. It may be necessary to use an extension cable such that the power-supply wires are of sufficient length.

5. ISSUES: Sometimes the material composition of the hand-grip will allow troubling reactions with the instrument operator's own life-energy field. In this case, you can try using a long wood table leg, as found in most hardware stores, and which also have a ¼ inch screw thread. Wood is a poor conductor of the life-energy, and a longer table leg will allow a greater distance for the operator's hands during measurements. Also be aware, at higher sensitivity ranges, the power-supply cable may become reactive, and require to keep away from both the operator and test subject, as well as off the floor, depending upon composition. Since every house and room will have different material compositions, good experimental method requires to test out the environment fully as a control procedure.

6. Helignosis has developed a special scanning carriage, which automatically holds the LEM and moves it at a constant speed up and down. When attached to a computer for data-recording, using the LEM's output jack, one can generate recordings of variations in a person's life-energy field. This is a more complicated procedure which will not be described here, and requires technical skills with a computer and DAQ system, as well as purchase of the carriage accessory. But for most experimental determinations, this simple scanning method using a camera-hand grip (or wood table-leg) will be suitable.

Experiment 3: Scanning the Energy Fields of Plants and Leaves:

1. Using the LEM configuration as described in Experiment 2, above, with hand-grip and Glass Tube Electrode, we now move outdoors to study the energy fields of plants.

2. Obtain an extension cord for the power supply to give suitable access

to wherever you will make your measurements. Plug in and warm up the instrument, setting to 10x.

3. After warming and zeroing, move the Glass Tube Electrode close to the leaves of a living plant. It will show a reaction which is roughly in keeping with the vigor of plant growth. The tips of growing plant branches, or the top-most growing tip, will give higher readings than older growth on the sides of branches, or along the trunk. At least, this is our experience using the LEM for small conifers and larger trees in the Pacific Northwest USA, as well as for a few deciduous varieties and potted plants.

4. Marett has demonstrated a "dying leaf" experiment* with the LEM which mirrors the "dying fish" experiment of Reich. Even when moisture content is stabilized, the LEM shows a progressive deterioration of the field strength readings of a leaf after it is plucked from a tree. This is similar also to the loss of Kirlian bioplasma field from a dying leaf, as demonstrated by Krippner and Rubin in their book *The Kirlian Aura* (page 197, Figure 84 of the 1974 Anchor Books edition).
* http://www.orgonelab.org/lemeter.htm

Experiment 4: Measuring the Human Energy Field with the Large Plate Electrode:

The Large Plate Electrode accessory allows for some interesting experimentation. Be sure to adjust the toggle switch on the rear of the instrument to the LARGE position.

One can lay the Large Plate Electrode flat on a smooth floor and have people stand on it with the bare feet, or with socks, to make additional comparisons. Or, it can be taped to a wall, where people can stand close to it – again, the distance from the electrodes will change the readings, so if you want to make meaningful comparisons, keep the distances

identical.

Using the Large Plate Electrode as taped to a wall, or carefully secured in the vertical position in open air (suspending it from the ceiling with string works well) one can then crank up the sensitivity to the 1000x or 2000x ranges. It will then pick up the human energy field from a much greater distance, of around two meters (yards)!

Experiment 5: Variable Strengths of Orgone Energy Blankets

This experiment will demonstrate how a stronger charge is developed from an orgone energy accumulating structure, the orgone blanket in this instance, by increasing it's layers or "plys". For more information on this subject, see *The Orgone Accumulator Handbook* (2010 edition is best). http://www.orgonelab.org/cart/xdemeo#ORACBOOK

1. Obtain several yards of sheep's wool felt or similar wool-cotton mix blanket material (no synthetics), and cut 16 pieces measuring approximately 4 inches (or 12 cm) square, about the same size as the wood base of the Small Plate Electrode.

2. Obtain a quantity of steel wool of moderate to fine grade.

3. Set up the LEM as previously, using the 1x scale and wood Small Plate Electrode, allowing to warm, and then zero.

4. Lay one layer of the wool felt on the small plate electrode. You will note it hardly reacts. Then lay down a square swatch of steel wool which is just a bit smaller size as the wool felt piece, and then another layer of wool felt, to complete the creation of a primitive 1-ply orgone blanket. The reading will now be up to around 8%.

5. Now lay down another series of sandwiched steel wool swatches and wool felt swatches, one after another, until you have four layers of steel

wool sandwiched in between five layers of sheep's wool felt. The bottom and top-most layers will be composed of sheep's wool felt. You can compress them down with your hand. The readings, when your hand is removed, will now be up to around 12%, for this primitive 4-ply orgone blanket.

6. Repeat step 5, adding another four layers of steel wool and sheep's wool, to build up to an 8-ply orgone blanket. The reading will now increase to around 15%.

7. Repeat step 5 again, building up to a 12-ply orgone blanket, which will now increase the readings to around 18%.

These readings may vary depending upon weather or other factors, such as how thick are the layers of fabric or steel wool layers you use. But if you are consistent in the layerings, it should reproduce the basic effect, which also shows that the number of layers or "plys" in construction of an orgone blanket does not automatically yield a direct linear increase in its charge. There is an increase in charge which suggests a plateau will eventually be reached.

If you repeat this experiment using a 10-cm (4") square of thin sheet metal plate as the very first layer, and put that directly in contact with the metal square of the Small Plate Electrode, the reactions are far greater, showing around 25% right off. When the layerings of wool felt and steel wool are now added, they show a proportionately greater reading at the LEM, such that the 12-plys of fabric and steel wool sandwiched together produces an overall additional 25% of reading, pushing the total for the metal-plate plus 12-ply orgone blanket to a full 50% reading. These observations confirm the more general and subjective observations of Reich and others, that

a) increasing the plys of an orgone blanket or accumulator does not produce any simple arithmetic increase in the strength of its radiant orgone field, or its bio-effects; and

b) the box-type orgone accumulator with an interior composed of

metal plate produces a stronger radiant field than an orgone blanket of an equal number of layers or plys.

More Challenging Experiments: Quantitative Differences of Life-Energy Charge in Liquids and Fruits, and Other Items.

We now turn to more experimental tests requiring greater care and laboratory skills, to measure the life-energy fields of living and non-living materials in a more quantitative manner. These should be attempted only after one has mastered the more simple experiments, and knows how and under what conditions the instrument will react.

To get meaningful results from the LEM, for comparisons of different samples or objects, you have to standardize the volume and/or the mass, and in some cases the moisture content of the material being evaluated.

General Notes on Higher-Sensitivity and Liquids Measuring

Liquids measuring is most challenging, so we recommend to study and test out the following methods as a first step on this subject.

Using Higher Sensitivity Ranges and "zeroing at 50%": If you measure two objects at 10x and the differences are negligible, say 80% versus 82%, you will observe that by increasing the sensitivity to 100x, those same samples now cannot be measured at all by zeroing the meter at the "zero" mark. But there is a work-around, by adjusting the meter at 100x to the 50% mark with one of the samples on the Small Plate Electrode, you can then compare the readings when the second sample is measured. This gives the difference in readings, though it remains somewhat "uncontrolled" for any larger kind of evaluations.

Zeroing with a "blank": For higher sensitivities, at 100x, one can prepare a "blank" object which gives a reaction somewhat similar to the liquids or fruits one is measuring, but which itself will not change in moisture or material composition over time. We have heard different reports on what works best, so some experimentation will be necessary. An empty glass vial is useful as a blank for zeroing against similar vials

containing liquids of different composition. The liquids will then drive the LEM to read at a higher level, but you will have subtracted the influence of the container. Or, a screw-top vial filled with distilled water, and sealed, can be used as a zeroing blank against other liquid samples of identical quantity in similar sealed vials, zeroing at 50% in those cases. In a few cases, a small metal or ceramic object can be used as a blank, allowing one to set the LEM to an excitation level which then allows for good comparative results between two liquids.

Avoidance of Table-Top Effects: At 100x and above, the LEM becomes highly reactive such that zeroing the instrument becomes problematic -- one cannot even use the fingers to adjust the zero knobs without the instrument reacting. Leaning over the instrument will create a reaction. And depending upon the material composition of the table-top, one can often cause a reaction in the instrument merely by putting one's hands on the table even at a great distance. In these cases, some experimentation is necessary to insulate the instrument and the Small Plate Electrode from the table top. We have found that thick sheets of cork insulation will do this, as will an ordinary closed-up and empty cardboard box. Zeroing with the fingers may then become slightly easier, but one may still have to adjust the LEM to something like 20%, anticipating it will fall back to zero once the fingers are removed. Or, to adjust at 70% with a fall-back to 50%.

Tip! In those cases where a person or sample drives the LEM off-scale at the 1x or 10x, but then yields too little on the higher sensitivity selections, you can decrease the sensitivity of the Small Plate Electrode by putting down a layer of thin paper or cardboard. The Glass Tube Electrode can also be decreased in sensitivity by making making a small round tube of similar paper-cardboard material. This material does not react significantly to the LEM, but provides a bit of "insulation" and dead-air space which can help in making more difficult measures.

Experiment 6: Comparisons of Fruits and Vegetables

A large fruit or vegetable will yield a stronger reading than a small one of identical species, in nearly all cases. When they are of nearly the same size and species, and from the same tree or orchard, the readings will be of generally the same magnitude but not exactly so. Given the many variables involved, such as moisture content, different species, or even the vitality of different trees which only the farmer could about, special control procedures may become necessary to make accurate or meaningful determinations.

1. Use the LEM on a flat table surface, turn on and warm using the Small Plate Electrode and zero as usual.

2. Compare different fruits or vegetables, cutting them to appropriate sizes so as to get good readings at the 10x or 100x settings. Note how larger samples give higher readings than smaller ones, generally. Also how fresh fruits of high moisture yield higher readings than dried fruits or root vegetables of lower moisture content.

These variations in weight and moisture should be studied and known, as a first step before attempting to control them out of the experiment, after which the life-energy parameters could be studied. If one wishes to test between different varieties of agricultural methods, for example bio-organic fruits and vegetables as opposed to chemically fertilized and pesticide-sprayed factory samples, then one must apply more demanding and controlled experimental methods.

The Cut-Weight Method: Cut similarly shaped and size slices of the fruit, and standardize their weight by use of a sensitive scale, cutting a bit off the heavier of the samples until the weight readings are close to identical. They can then be measured on the LEM more meaningfully. Two samples alone may not suffice, however, so for good scientific procedure, a group of ten samples from each of the two groups – bioorganic versus chemical grown for example – should be used. Re-

zero the LEM after each reading, if necessary.

The Juicing Method: Because different samples may have different moisture contents, the cut-weight method may not work in all cases. Instead one can draw a sample of juice from the fruits or vegetables in question. Be sure to use identical methods for extracting the juice, and wash the juicer between the sample groups. Catch the juice in glass containers only, and then portion off identical quantities of juice into identical small containers for measuring at the LEM. Don't expect too much here, maybe 5% to 15% difference for the same kind of juice or liquid. Natural Energy Works sells special non-reactive glass-vials and plastic beakers for such liquids experiments. Experiments are also underway at Heliognosis towards development of a specific hybrid electrode, for direct immersion into the sample, like a pH electrode. See the notes also on Liquids Measuring, as given above.

Experiment 7: Comparisons of Different Water Samples

Much has been said about *living water* versus dead water, the subject of water structure or activation chemistry. We have preliminary indications this can be studied by use of the LEM, and that at least some of this parameter is an expression of the life-energy as it charges up the water. For this type of experiment, one must have a good laboratory with other test equipment so as to make the most rigorous of control procedures.

1. Set up the instrument on a table-top, warmed and using the Small Plate Electrode at 100x. Zero at 50% using the methods described above, using a distilled water blank filled to the top in sealed glass vials of about 10ml volume – Natural Energy Works sells these as an accessory to the meter.

2. At this setting different water samples of identical volume will usually yield different readings. We have found that our good and

healthy mountain well water yields about a 5% to 10% higher reading than distilled water purchased in plastic containers at the grocery store. Re-zero the instrument frequently, and be aware of the role of your hands in the measures!

3. One can rule out the role of electrical conductivity in the mineralized water samples by adding a small bit of NaCl table salt into the distilled water sample. Use a conductivity meter and add sufficient salt to the distilled water so it has a conductivity identical to the well-water sample. This particular salt control measure reduced the differences between the well and distilled samples by a small amount, indicating that the LEM readings can be influenced by conductivity parameters. However, a difference of 3% to 8% persisted, in our experience. This demonstrated the water drawn from the earth carried an innate charge, detected by the LEM, which was not present in the distilled sample, even when the parameter of conductivity was controlled out of the experiment. Grounding the two water samples with a wire for some period, so as to eliminate electrical potential differences, does not eliminate this factor.

These liquids measuring methods are still under experimental review, as there is much unknown about how the contact of commercial water or juices with metal or plastic containers and components might change its character – just as we know from purchase of items in the grocery store, which are never quite as good as getting them fresh from the farm. We have seen some good indications, however, between for example organic orange juice and non-organic orange juice of similar expiration dates. But not always so. The number of variables involved is so great as to require a great caution in interpretation of results.

This is why we emphasize the word “Experimental” in the descriptive literature.

Experiments with the 1000x and 2000x Ranges

The higher sensitivity ranges of 1000x and 2000x are fully experimental in nature. They have limited uses for most applications, but do provide some interesting readings when set up with a computer and DAQ system for long-term recording. For these experiments, it is advised to set up the instrument and electrode in a location where it will not be perturbed by people walking by. It should be monitored and adjusted for the initial period to insure the zeroing is proper for changing environmental parameters, and that it won't be simply driven off-scale.

Summary and Comparisons to Other Measuring Devices

Taken together, all these kinds of readings with the LEM as discussed or shown above, appear functionally identical to the life-energy charge of the object or person.

Some generalized experiments with millivoltmeters, as noted above using the method of Harold Burr* for "electrodynamic field" measures, suggest similar variations, and highlight the changing nature of creatures, tissues, and the background field of the Earth itself -- which in turn affects all living and non-living objects. As a dynamical property which varies by time of day, weather conditions and lunar cycle, as well as the location where the instrument is placed and used, the demands for control procedures with the LEM – particularly for more demanding experiments -- are therefore greater than for the usual static laboratory phenomenon.
* http://www.orgonelab.org/cart/xlifenergy.htm

Personally speaking, I consider the LEM to be somewhat analogous to the very first pH meters. They were also reactive to the human field of the operator, fussy about the location where they were used, and picked up the dynamic field changes given how they have a millivoltmeter at their core. Over the years, they became increasingly sensitive and useful for a wide variety of purposes. At present, Marett is continuing research with the instrument for a method to exclude or reduce the secondary reactions of the LEM to metals and water alone. New versions of his LEM will then be introduced commercially. The existing LEM is nevertheless the only instrument which can demonstrate the presence of the life-energy field with a constant measure and sustained reading, without the usual fall-off back to zero, as seen in sensitive millivoltmeters due to motional electrical fields alone. It is an analog meter yielding quantitative results parallel to the Korotkov/Kirlian energy-field imaging devices. It is not reactive to standard electricity -- static or EM -- and functions by creating its own very isolated resonant field, which is affected by and measured when other objects or living

substance are placed within that field.

NOTE: Do not introduce electrostatic charges into the LEM electrodes! This can damage the instrument.

Using classical electronics terminology, the LEM might be described as amperage variations in the “displacement current” of the electrodes, which is variable according to the "permittivity" of the objects which are brought near to it. However, these classical electronics terms can hardly be considered as meaningful, given how they merely provide a name -- “permittivity” and “displacement current” -- to phenomena and material properties which otherwise are not well understood in any depth. Why for example a healthy and vital working person has a stronger charge in their hands as opposed to an intellectual person, or why one hand shows more charge than the other in the same person, or why healthy life-giving water and fruits are slightly higher charged than devitalized ones.

It is also not clear that the LEM readings are comparable to what homeopathic physicians or radionics experimenters are observing. Those kinds of readings appear more qualitative in nature, as opposed to the quantitative parameter of energy charge. Much remains to be clarified in this respect, and for these reasons we do not offer the LEM as any kind of diagnostic instrument, even for such things as comparative kinesiology testing. But we certainly do encourage experimentation and good scientific research study of the LEM’s possibilities.

For More Information:

We encourage people to review all the details as given at the Natural Energy Works selling page for the LEM, as given here:

http://www.orgonelab.org/cart/ylemeter.htm

And here is another webpage providing details on some of the same experiments given above, plus a few new ones:

http://www.orgonelab.org/lemeter.htm

Be sure to also read the Manual that comes with the meter.

Contact:

Natural Energy Works
Ashland, Oregon, USA
http://www.naturalenergyworks.net
http://www.orgonelab.org/cart/ylemeter.htm
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