FROM THE ORGONE INSTITUTE RESEARCH LABORATORIES

EXPERIMENTAL DEMONSTRATION OF THE PHYSICAL ORGONE ENERGY

Preliminary Communication*

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I. ORGANIZATION OF PLASMATIC MATTER FROM FREE ORGONE ENERGY.

In the following, I would like to report on an experimental result which owes its discovery to an "accident." It was one of those accidents which are wont to happen in the course of systematic experimental work and which, on closer examination, are shown to be logical results of the experimental thought and work process.

For several years, I had observed earth bion preparations which I kept alive by replenishing the water regularly. I noticed the development of small, rapidly moving living forms of the shape of a bean or of the head of a spermatozoon; in some preparations these appeared after a few months, in others only after years. It was possible clearly to observe the development of these living forms from strongly radiating and slowly pulsating bions. As we know, such living forms do not derive from the air. First, they are not found in air dust; second, they cannot be obtained by air infection; and third, their appearance in the non-sterile earth bion preparations only after months or years confirms their organization from the preparations themselves. Furthermore, autoclaved preparations kept under sterile conditions resulted in the same living forms.

In December, 1944, we acquired an apparatus for the quantitative measurement of fluorescence in fluids. The work with this apparatus was based on the following considerations:

Earlier experiments had shown that the orgone energy is capable of luminating. It was to be assumed that fluids with a higher orgonotic potency, that is, containing more orgone energy, would more strongly luminate than fluids with a weaker orgonotic potency. Correspondingly, the intensity of fluorescence in fluids could be regarded as an expression of lumination. As a working hypothesis, the degree of fluorescence was taken as the measure of orgonotic potency. These assumptions were fully confirmed in the course of the experiment and led to practical experimental results.

The fluorometric intensity, that is, the orgonotic potency, of the fluid which, for months or years, had contained earth bions, was much higher than that of ordinary water. We then set out to investigate...
changes in orgonotic potency as they occur under diverse conditions. We put earth bion water of known fluorometric intensity into sealed ampoules which we placed in different localities. Some ampoules we left for several weeks in the laboratory room itself, others in a small triple accumulator, others in the X-ray room, still others in the open air or buried in the soil. Our intention was merely that of repeating the fluorometric measurements after some time. After three weeks we noticed that the ampoules which had been in the open air and in which the water had frozen contained, after thawing, dense flakes. The accident consisted in the fact that at the very moment when we were about to throw away these ampoules as “contaminated” I had the idea of examining these flakes microscopically. To my greatest surprise, these flakes—which had developed in an absolutely clear, carefully filtrated fluid free of particles—were revealed as very strongly radiating bionous particles. At a magnification of 3000x, contracting and expanding bions could be seen, forms with which we are quite familiar. We repeated the experiment of filtrating and freezing clear bion water until there was no longer any doubt that we were dealing with a process in which free orgone energy in water, i.e., orgone energy not connected with bionous matter, becomes organized into plasmatic living substance with all the criteria of life.

In the following, I shall limit myself to a presentation of the technique of this “Experiment XX” and of the established facts. For the time being, I shall refrain from discussing the theoretical framework in which these facts—which are of extreme importance—belong. These facts become comprehensible only if one examines them in the total context of the orgone-physical function; this will be done elsewhere. It must be pointed out here, however, what progress this experiment constitutes in the preparation of bions, that is, viable orgone energy vesicles. To summarize:

1. Between 1936 and 1945, bions were prepared exclusively from matter already organized (humus, grass, iron, sand, coal, etc.). The progress made by Experiment XX consists in the fact that now orgone energy vesicles, with all the criteria of living matter, can be obtained not from already organized matter, but from free orgone energy. This we may call primary bion formation in contradistinction to secondary bion formation from already organized matter. The significance of this distinction for the concept of biogenesis and for biochemical processes will be discussed elsewhere.

2. A further progress represented by Experiment XX consists in the fact that it provides a new and incontrovertible proof for the life-specific nature of the orgone energy.

II. THE PROCESS OF THE BION WATER EXPERIMENT XX.*

A. THE FLUOROPHOTOMETRIC DEMONSTRATION OF THE ORGONE IN EARTH BION WATER

1. Ordinary garden soil is put through a screen and thus cleaned of stones, clumps, etc. If water is added to the screened soil, microscopic examination fails to reveal any kind of motion.

2. We examine distilled water and tap water fluorophotometrically. If we take the fluorophotometric value of distilled water as 1, salt-containing, that is, spring or tap water, is shown to have a value of 3 to 4, measured in Forest Hills, N. Y. The fluorophotometric value of the fluid is its “orgonotic potency.” The galvanometer connected with the fluorophotometer has a scale with 100 equal divisions. The orgonotic potency of the fluid to be measured is a multiple of the orgonotic potency of distilled water. The following table shows the values of orgonotic potency (OP) in various fluids:

### Fluids and OP Values

<table>
<thead>
<tr>
<th>Fluid</th>
<th>OP (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White sugar (saturated solution)</td>
<td>9</td>
</tr>
<tr>
<td>Brown sugar (saturated solution)</td>
<td>13</td>
</tr>
<tr>
<td>Maple syrup</td>
<td>27</td>
</tr>
<tr>
<td>Dextrose-Maltose (saturated solution)</td>
<td>41</td>
</tr>
<tr>
<td>Honey</td>
<td>73</td>
</tr>
<tr>
<td>Orange juice</td>
<td>7</td>
</tr>
<tr>
<td>Milk (pasteurized)</td>
<td>55</td>
</tr>
<tr>
<td>Milk (not pasteurized)</td>
<td>100+</td>
</tr>
<tr>
<td>Egg-white</td>
<td>25</td>
</tr>
<tr>
<td>Tea</td>
<td>2</td>
</tr>
<tr>
<td>Whiskey (blended)</td>
<td>11</td>
</tr>
<tr>
<td>Distilled water</td>
<td>1</td>
</tr>
<tr>
<td>Rain water</td>
<td>4</td>
</tr>
<tr>
<td>Tap water</td>
<td>3</td>
</tr>
<tr>
<td>Sea water</td>
<td>8</td>
</tr>
<tr>
<td>NaCl (physiol. sol.)</td>
<td>4</td>
</tr>
<tr>
<td>KCl (0.1 normal)</td>
<td>2</td>
</tr>
<tr>
<td>CaCl₂ (0.1 normal)</td>
<td>2.5</td>
</tr>
<tr>
<td>Ringer's solution</td>
<td>1.5</td>
</tr>
<tr>
<td>HCl (0.1 normal)</td>
<td>1</td>
</tr>
<tr>
<td>NaOH (0.1 normal)</td>
<td>2</td>
</tr>
<tr>
<td>HgCl₂ (disinfectant)</td>
<td>3.5</td>
</tr>
<tr>
<td>Alcohol (95%)</td>
<td>3</td>
</tr>
<tr>
<td>Culture broth</td>
<td>45</td>
</tr>
<tr>
<td>50% broth, 50% KCl</td>
<td>60</td>
</tr>
<tr>
<td>Sand in H₂O, filtered</td>
<td>1</td>
</tr>
<tr>
<td>Iron filings in H₂O, filtered</td>
<td>5</td>
</tr>
<tr>
<td>Charcoal powder in H₂O,</td>
<td>7</td>
</tr>
<tr>
<td>filtered</td>
<td></td>
</tr>
<tr>
<td>Earth in H₂O, filtered</td>
<td>8</td>
</tr>
<tr>
<td>Earth bions</td>
<td>50 (average)</td>
</tr>
<tr>
<td>Grass in H₂O, after develop-</td>
<td>13</td>
</tr>
<tr>
<td>ment of bions and protozoa,</td>
<td></td>
</tr>
<tr>
<td>filtered</td>
<td></td>
</tr>
<tr>
<td>Urine</td>
<td>43</td>
</tr>
</tbody>
</table>

3. The screened garden soil is boiled for an hour in distilled or ordinary water, or autoclaved for half an hour (at 120°C and 15 lbs. pressure).

4. The water is filtrated from the boiled soil. This clear fluid we call *bion water*. In contradistinction to the original water, which was colorless, this always shows a yellow color of varying intensity. The fluorophotometric measurement of the orgonotic potency (OP) is made immediately after the boiling and filtration. Its values vary between about 30 and 60 and average about 45. In other words, the orgonotic lumination of the bion water is, on the average, 45 times stronger than before the boiling process. The galvanometer indicates the reaction of the photoelectric cell which is hit by the fluorescence light; consequently, an increase of the fluorophotometric value of the water after the boiling of the soil indicates a higher energy content of the fluid. This can be given in micro-amperes. However, the value in micro-amperes which we read at the galvanometer is not the real measure of the orgonotic lumination; it is merely a measure of the excitation of the photoelectric cell which is transformed into electrical energy. As I have shown elsewhere, *the electric units of measurement indicate only an infinitesimal fraction of the actual energy values of the orgone.*

5. Only at first sight does it seem astounding that boiled bion water shows energy values in the range of those of organic fluids such as bouillon, milk or vitamins. On giving the matter some thought, one finds that the result is logical and matter-of-course:

The boiling changed the matter of the soil into motile *bionous* matter. Energy became liberated from the matter. This is clearly shown by microscopic examination: before boiling, the particles of the soil exhibited no motion, while after boiling the orgone energy vesicles show an inner motion, contractility and slow pulsation. In the process of boiling, not only were the soil particles changed into bions and energy was liberated in the particles; more than that: *this energy also got into the water, for water attracts orgone (and vice versa).* In this manner, the orgonotic potency of the water is increased from its original value to that of biochemical fluids.
of high orgonotic potency.

6. Experience shows that in the boiled bion water rot bacteria develop, even if air is immediately excluded. For this reason, we started to autoclave it for 30 minutes at 120°C. and 15 lbs. pressure. This procedure usually lowers the OP some 5 to 8 points, but in the course of the next 24 or 48 hours it rises again to the original level. The autoclaved bion water is kept in carefully sterilized flasks or in sealed ampoules which are put in the refrigerator.

B. THE ORGANIZATION OF BIONOUS AND PLAS-MATIC MATTER FROM THE ORGONE ENERGY IN THE BION WATER

Bion water of high OP, completely free of particles and sterile, is placed into vials or test tubes two days after boiling or autoclavage. The vials are sealed off, the test tubes stoppered with sterile cotton stoppers. We divide the tubes into three groups. Group A is placed in a triple orgone accumulator of 1 cubic foot; Group B is left standing in the laboratory; Group C is placed into the freezing compartment of the refrigerator. As controls we use three groups of tubes with plain sterile water which are placed in the same way.

Two to eight days after the freezing, we thaw out Group C. Before the thawing out, we are struck by the fact that the yellow color of the bion water has become concentrated in the center of the ice in a dense, brownish-yellow spot. The surrounding peripheral ice is completely clear. Immediately after the thawing of the ice, one notices whitish and brownish flakes in the previously clear fluid. These flakes have a macroscopic size of about 1 to 5 mm. length and about 1 mm. width. The fluid is yellow and clear throughout.

Groups A and B develop the same flakes, only much more slowly, that is, in a period of from 3 to 8 weeks. Control Group B, kept in the laboratory room, shows no flakes of any kind, nor does Control Group C. Control Group A, on the other hand, ordinary water in the orgone accumulator, also shows flakes, but only in the course of several months, and not as dense or well-formed as the experimental Groups A, B and C.

Microscopic examination of the flakes always showed the same two basic types: Smooth, plasmatic, but well-defined forms in which there are found dispersed, more or less densely, dark granules and occasionally blue PA bions; or strongly bionous heaps of orgone energy vesicles with a strong blue glimmer and margin (cf. microphotographs on following pages).

The preparations, kept under sterile conditions, showed an increase in flakes after a few days, but a much greater increase after 2 to 3 weeks. Microscopic examination shows that the flakes grow individually through addition of substance and also that they increase by division. The threadlike, winding and serpentine light flakes change in the course of the weeks more or less into strongly radiating bionous heaps.

Culture experiment: In order to observe the growth and increase still more clearly, the flakes can be put into clear, sterile bion water. After 1 to 2 weeks, there is definite culture formation. The flakes become denser. Observation to date shows that the OP of the culture fluid remains at about the same level or even increases.

Observing the preparations microscopically at regular intervals, say once a week, over several months, one sees very gradual biophysical changes take place in the flakes. In many of them spherical bions of about 2 to 3 μ diameter, with a margin and strong blue glimmer, develop; these gradually become elongated and finally assume the shape of a bean:

These "bean forms" develop under favorable conditions, i.e., if there is no premature T-degeneration present in the preparations,
DEMONSTRATION OF PHYSICAL ORGONE ENERGY

into contractile protozoa which move rapidly in a jerky manner. The plasma of most of these protozoa has a granular or striated structure; in others it is smooth, without structure. One can obtain pure cultures of these protozoa by inoculating from the fluid above the flakes, without stirring up the flakes themselves. They increase from culture to culture without difficulty.

C. OBSERVATIONS AND TESTS CONCERNING THE BIOLOGICAL NATURE OF THE ORGONE FLAKES

1. The thawed-out, flake-containing preparation XX represents an unresolvable colloid: Evaporation of clear, yellow bion water results in a yellow, smooth, opaque residue on the bottom of the container. When scraped off, it forms a powder consisting of small yellow or brownish crystals which we termed "orgontin." These crystals cannot be dissolved again, either in ordinary water or in water with a high orgone content. They merely swell up and appear exactly like the flakes which one obtains by thawing out of frozen bion water. They, too, show the manifestations of growth, of multiplication and of protozoa formation.

2. Microscopic observation of organization: The flakes grow, both in length and in width; bion heaps become larger through organization of further bions from the fluid. Small flakes become larger, while smaller flakes sprout from the large ones. Often, the bions arrange themselves in groups. The larger the flakes become the darker they turn, until they are brown or almost black.

3. Orgonotic attraction and sterilizing effect: The orgone flakes act like any other strongly bionous matter examined thus far. Brought together with rot bacteria, they kill or at least paralyze the latter; this effect takes place at a distance.

4. T-degeneration and putrefaction: Like any other organic or living substance, the orgone flakes degenerate in the form of putrefaction, disintegrating into T-bodies. In strongly degenerated preparations, protozoa develop only poorly, compared with sterile preparations. By repeated freezing, degenerated preparations can again and again be made free of T-bacilli and rot bacteria. This process seems to facilitate the organization of moving protozoa.

5. Dried flakes burn in the flame, turning into a black, coal-like substance; i.e., they act like living protoplasm or non-living organic carbon compounds. Even when, without burning them, one merely lets them dry out, the same black coal-like substance develops, probably through oxidation; it burns in the flame.

6. Sugar content: Bion water with a high orgonotic potency has a sweet taste. Burning of the flakes results in an odor like that of caramel. (An exact biochemical analysis is yet to be done).

7. All vessels which have been in contact with bion water or bion earth for a considerable period of time have a fatty feel.

8. To weakening procedures, such as autoclavage, the bion water reacts as a living organism would react, that is, with a decrease of OP, which increases again only gradually.

9. Contractility of the free orgone in the bion water. The appearance of a concentrated yellow spot in the center of the clear ice admits of only one plausible explanation: The free orgone energy in the freezing water acts exactly like the orgone energy in a freezing organism; contracting, it retracts from where the freezing takes place. Free orgone energy, then, has the ability to contract; in the process of contraction, matter develops, apparently through condensation. This process requires intensive study.

10. The orgone flakes develop more rapidly into protozoa when one adds T-bacilli to the preparation. Then, one can observe the development of plasmatic spindle forms with a coarse structure, re-
# EXPERIMENT XX

<table>
<thead>
<tr>
<th>Date</th>
<th>Prep. No.</th>
<th>Procedure</th>
<th>OP before treat.</th>
<th>Type of Organization</th>
<th>Other Forms Present</th>
<th>Reproduction</th>
<th>T-degeneration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 2, '45</td>
<td>XX 1 Org</td>
<td>Kept in accumulator 20 days</td>
<td>46 +</td>
<td>Bion.</td>
<td>Plasm.</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Jan. 3</td>
<td>XX 1 f</td>
<td>Frozen 21 days</td>
<td>38 ++ ++</td>
<td>Single Cells</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Jan. 6</td>
<td>XX 1 c</td>
<td>Autoclaved, kept in room</td>
<td>41 +</td>
<td>Bean-Shapes</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Jan. 8</td>
<td>XX 1 x</td>
<td>Untreated, kept in room</td>
<td>40 +</td>
<td>Protozoa</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Jan. 25</td>
<td>XX 2 f</td>
<td>Frozen 4 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan. 26</td>
<td>XX 3 cf</td>
<td>Autoclaved; frozen 4 days</td>
<td>52 + (−)</td>
<td></td>
<td>+</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Jan. 30</td>
<td>XX 1 g</td>
<td>Dried to crystals, put in distilled water</td>
<td>+</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Jan. 30</td>
<td>XX 4 cf</td>
<td>Autoclaved; frozen 3 days</td>
<td>60 + (−)</td>
<td></td>
<td>+</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Jan. 31</td>
<td>XX 5 cf</td>
<td>Autoclaved; frozen 4 days</td>
<td>51 + (−)</td>
<td></td>
<td>++</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Jan. 31</td>
<td>XX 5 cg</td>
<td>Autoclaved; dried, put in distilled water</td>
<td>51 −</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Feb. 5</td>
<td>XX 6 cf</td>
<td>Autoclaved; alternately frozen &amp; thawed 6 days</td>
<td>57 + (−)</td>
<td></td>
<td>+</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Feb. 6</td>
<td>XX 6 cg</td>
<td>Autoclaved, dried, put in bion-water</td>
<td>57 +</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Feb. 9</td>
<td>XX 8 cf</td>
<td>Autoclaved; frozen 1 day</td>
<td>57 +</td>
<td></td>
<td>+</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Feb. 9</td>
<td>XX 9 cf</td>
<td>Autoclaved; frozen 1 day</td>
<td>37 + (−)</td>
<td></td>
<td>++</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Date</td>
<td>Sample</td>
<td>Treatment</td>
<td>Duration</td>
<td>Condition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>--------</td>
<td>-----------</td>
<td>----------</td>
<td>--------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 9</td>
<td>XX 9 cg</td>
<td>Autoclaved, dried, put in bion-water</td>
<td>1 g redried, put in tap water</td>
<td>Frozen 14 days</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 12</td>
<td>XX 1 gg</td>
<td>Autoclaved, frozen 14 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 13</td>
<td>XX 10 f</td>
<td>Autoclaved, dried, put in bion-water</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 13</td>
<td>XX 10 g</td>
<td>Dried, put in tap water</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 13</td>
<td>XX 10 cf</td>
<td>Frozen 8 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 20</td>
<td>XX 11 f</td>
<td>Autoclaved, dried, put in bion-water</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feb. 21</td>
<td>XX 12 f</td>
<td>Frozen 7 days; degenerated; refrozen 2 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar. 1</td>
<td>XX 13 f</td>
<td>Cloudy, full of rod bact.; frozen 4 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar. 1</td>
<td>XX 14 f</td>
<td>Autoclaved; frozen 4 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar. 2</td>
<td>XX 15 f</td>
<td>Frozen 13 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar. 5</td>
<td>XX 15 g</td>
<td>Dried, put in bion-water</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar. 7</td>
<td>XX 16 cf dill. f</td>
<td>Frozen 5 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar. 7</td>
<td>XX 17 f</td>
<td>Contained a few rot bact. &amp; protozoa; frozen 5 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar. 8</td>
<td>XX 18 cf</td>
<td>Autoclaved; frozen 4 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar. 14</td>
<td>XX 19 cf</td>
<td>Autoclaved; cloudy, some rot bact.; frozen 13 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr. 6</td>
<td>XX 20 cf</td>
<td>Autoclaved; frozen 3 days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
sembling the Ca III formations (cf. This Journal 2, 1943, 80).

Stages of development of protozoa in sterile bion water free of particles. Summary:

a) After the thawing of bion water there appear granulated plasmatic flakes of a typically organic form.

b) Many of the single granulae expand into spherical orgone energy vesicles with a strong blue glimmer. Most of these groups of bions conglomerate into larger forms.

c) The spherical bions, in the course of days or weeks, develop into bean-shaped, as yet immobile forms.

d) These bean-shaped forms become mobile in two ways: At a magnification of 3-500x the content of the energy vesicles shows fine movements of expansion and contraction; the forms stretch out more and more, the membranes becoming softer, and they begin to move from place to place. Those forms which have become strongly elongated develop serpentine or corkscrew-like movements. The following drawings are from life at a magnification of about 240x, and of apparent size:

![Drawing of bion forms]

e) If one inoculates protozoa-containing bion water fluid into sterile bion water, the protozoa increase in the same way and can be reinoculated again and again. These protozoa I termed orgonomia.

Some control experiments:

1. Freezing of ordinary, non-sterile spring water or of distilled water produces neither flakes nor protozoa. The organization of plasmatic matter, therefore, is to be ascribed only to the high orgone content as determined by the fluorophotometer.

2. If one distills bion water of about 40 to 50 OP, one finds some flakes immediately after cooling, and numerous flakes after freezing. This is further confirmation of the statement made under (1).

3. Since sea water is extremely rich in orgone, the fact is understandable that it, also, results in flakes and protozoal growth after filtration and autoclavage. However, there is a riddle here: Sea water taken at Jones Beach, on the Atlantic shore of Long Island, N. Y., shows, about 1 hour after being taken, an OP of only 8 to 10. Earth bion water of such low OP results in no or only poor bion growth; it remains to be explained, therefore, why in sea water the low OP makes no difference. The phenomenon is important; but we cannot understand everything at one time.

4. Water from autoclaved grass also results in flakes after freezing; they multiply and grow.

Biological effects:

Injection of bion water of high orgonotic potency into living organisms, plants as well as animals, results in vigorous vagotonie reactions. The life-furthering effect of this preparation is established as a fact. Detailed reports on these experiments will follow.

III. DEMONSTRATION OF ORGONOTIC PULSATION IN THE REALM OF THE NON-LIVING.

The following observations and experiments were undertaken in order to demonstrate the specifically biological orgone energy also in the purely physical realm. This undertaking was successful which takes the ground from under any mystical concept of the specific biological energy. The relevant observations and experiments are very simple and easily carried out.

A. THE OSCILLATIONS OF A PENDULUM IN THE PULSATING ORGONE ENERGY FIELD OF A METAL SPHERE

Experiment: A metal sphere (iron or steel) of about 4 to 6 cm. diameter is placed on a solid table, with or without concrete
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Demonstration of physical orgone energy

floor. At a distance of about 0.5 cm. from the equator of this sphere, a much smaller sphere (about 1 cm. diameter) is suspended freely as a pendulum. For certain definite reasons, the length of the pendulum thread is made 16 cm. The best results, according to my experience, are obtained if one makes the pendulum sphere of a mixture of earth and iron filings (i.e., organic plus metallic material) by mixing the two substances in water and putting them into a sphere of extremely thin glass. The whole apparatus is then covered with a transparent cellulose cover which protects it against air currents.

The apparatus is then covered with a transparent cellulose cover which protects it against air currents.

Conclusion: This experiment demonstrates the existence of a pulsating orgone energy field around an ordinary iron sphere which makes a freely suspended pendulum oscillate. The natural orgone energy field in the realm of the non-living pulsates.

B. THE PULSATION OF THE ATMOSPHERIC ORGONE

Experiment and observation: A telescope (E. Vion, Paris, France) with an aperture of 3½ inches and 4 foot length, with a magnification of 185x, was placed on the shore of the lake so that the opposite shore, at a distance of from 4 to 8 miles, could be observed. The observations were made at my cabin on Lake Mooselookmeguntic, Maine, during 2 months in the summer of 1944 and 4 weeks during the summer of 1945, daily from morning until evening, at about half-hourly intervals. The important observation is the following: With the telescope trained toward the South, one observes against the background of the opposite shore, even at a magnification of 60x, a wave-like pulsating movement which—save certain exceptions—is always from West to East. This West-East movement is constant no matter whether the lake is smooth or rough, no matter whether the wind is from the West or from the South, no matter whether it is strong or weak. The farther toward the West or the East one trains the telescope, the less observable does the movement become, to disappear completely if one looks directly toward the West or the East. The speed of the wave-like movement varies at different times. It is independent of the air temperature. The “something” in the atmosphere
must, of course, be moving faster than the earth, or else the movement could not be seen. Always before the formation of a heavy thunderstorm in the West, the direction of the wave-like movement became reversed, or at least ceased. I have never seen it move from South to North or from North to South.

This telescopic observation is supported by an observation one can make with the naked eye at times of complete calm and smooth lake: Above the mirror of the lake, one sees a pulsation of an infinite number of small sections, while "the whole" moves, in a pulsatory manner, and more or less rapidly, from West to East.

These observations, which—with some patience and practice—are very easy to make, are in accordance with the finding of a pulsating orgone energy field around a metal sphere as well as with the orgone-biophysical basic concept of the pulsatory basic function of the orgone energy. More than that, the rotation and pulsation of the atmospheric orgone from West to East is in absolute agreement with certain astronomical observations known for a long time. The preliminary conclusion is the following: The earth is surrounded not only by an air atmosphere of a definite chemical composition, but also by an envelope consisting of orgone energy. This ORCONE ENVELOPE rotates from West to East, faster than the earth. The connection between the reversal of this direction and local weather formation awaits further study in detail. The rotating orgone envelope has nothing to do with waves of vapor or with air movement, for it is independent of these processes.

What has been said here is to be regarded as a preliminary communication. When social and financial conditions permit, these findings will have to be checked and expanded by intensive studies in various places. I may add here, however, that it has already been possible to confirm the existence of a pulsation in the atmosphere by way of the oscillograph. The presentation of these findings will have to be postponed for some time.

IV. DEMONSTRATION OF ORGONOTIC LUMINATION AT THE ORGONE ENERGY FIELD METER.

Apparatus: The different pole of the secondary coil of an induction apparatus (an old diathermy apparatus will do) is connected by an electric wire with an iron plate of 1 x 2 feet which rests on a wood plate the same size (cf. diagram, p. 143). About 6 to 12 inches above this plate, another metal plate of the same size is mounted in such a manner that it can be moved up and down. The upper side of this plate is insulated with a plate of plastic material (or celotex) of about ½ inch thickness. The lower and the upper iron plate are connected by a wire connected with a simple cylindrical bulb of about 40 watts. The primary current of the induction apparatus is turned up just to the point where the bulb begins to glow. (How this is to be achieved depends, of course, on the individual induction apparatus).

Observations: 1. If one holds a fluorescent tube in one's hand and brings it close to the upper plate, the tube luminates, at a distance from the plate depending on the strength of the primary current. If we put the tube on the upper plate and remove our hand, the light goes out. As soon as we bring our hand close to the tube, the lumination reappears and becomes more intense when we touch the tube. The lumination is most intense between the two metal plates and decreases steadily with the distance from the apparatus. It is intermittent, not steady. In this manner, we can determine the exact extent of the energy field of the orgone energy field meter.

2. If we bring our hands gradually closer to the upper plate from above, the connected tube (B) luminates more strongly,
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Diagram of Orgone Field Meter

C = secondary coil system; i = indifferent pole; d = different pole
S = centimeter scale (40-60 W.)
B = wolfram bulb
E = electric eye
G = galvanometer
O = organic material
M = metallic material
OF = luminating orgone field
and even more strongly when we put our hands on the plate (to avoid an electric shock, there must be no nails or other metallic connections with the metal plate). The more of our body surface we bring close to the upper place, the stronger is the lumination. With careful adjustment of the primary current, it is possible to perceive the pulsation of the heart in the form of slight oscillations of the lumination.

3. A static electroscope gives no deflection if we bring our hand close to its plate. If, however, we place the electroscope into the energy field of the apparatus, on the upper plate, then we find a deflection if we bring our palm close to the electroscope plate (without, of course, touching it).

4. A freshly cut branch with many "caves," or a freshly killed fish produce lumination of the bulb if put on the upper plate. However, the lumination becomes steadily weaker and cannot be achieved at all after the fish has been dead for some time.

5. If we bring a dry piece of wood, which is long enough so that our own orgone energy field does not come into contact with the energy field of the apparatus, close to the upper plate, there is no lumination. If, however, we bring a metal plate close, parallel to the upper plate, there is lumination of the bulb.

6. In the field of an X-ray machine of 60 to 80 kilovolt, we cannot produce lumination of a fluorescent tube.

**Conclusions:**

1. The secondary coil of an induction apparatus—in contradistinction to ordinary electric high voltage—produces an orgone energy field which can be demonstrated by the lumination of a fluorescent gas (helium, argon, neon) without the necessity of direct contact by a wire.

2. Orgonotic lumination is the result of the contact between two orgone energy fields.

3. The lumination effect is obtained only through the contact of an orgone energy field with the energy field of a living organism, but not through contact with non-living organic material. That is, the living organism differs from the non-living organism in that it possesses an orgone energy field.

4. The addition of a sensitive electric eye (E) near the bulb transforms the lumination energy into electrical energy and makes it possible to measure it in electrical units by means of a galvanometer (G). In this manner, the orgone field meter can be used to determine the intensity and the extent of the orgone energy field of a living organism.

**V. DEMONSTRATION OF ORGONOTIC ATTRACTION IN THE ENERGY FIELD OF THE ORGONE ACCUMULATOR.**

**Experiment:** We bring a good magnetic needle close to an orgone accumulator of 1 cubic foot, in the following manner: a) close to the center of the 4 upper edges; b) close to the center of the lower edges.

**Result:** The magnetic north pole regularly turns toward the center of the upper edges, the magnetic south pole toward the center of the lower edges.

**Conclusion:** The reaction of the energy field of an orgone accumulator is of an orgonotic and not of a magnetic nature.

**Proof:** 1. Magnetic attraction is confined to the ends of the iron; the middle is not magnetic.

2. The poles of magnetic attraction (south and north) are not interchangeable, except if one remagnetizes a weaker magnet with a stronger one. If the attraction effect of the orgone accumulator were of an iron-magnetic nature, the magnetic needle would turn toward the center of the edges always in the same way, no matter how we turn the accumulator. This, however, is not the case. Whichever edges we make the upper, lower or side edges, the
DEMONSTRATION OF PHYSICAL ORGONE ENERGY

magnetic needle always reacts as described, that is, it turns with its north pole toward the center of the upper edges and with its south pole toward the center of the lower edges. The attraction effect of the orgone accumulator, then, is not due to definite parts of the material and can, therefore, not be of a magnetic nature. Obviously, the reaction depends on the position of the orgone accumulator in the field of the organonotic atmosphere of the earth. It follows, under consideration of all experimental and theoretical facts, that the energy field of the earth also is not of a magnetic but of an organonotic nature and has a definite relationship to the magnetic field of the earth.

It is likely that magnetism as such will be shown to be a function of the cosmic orgone energy. Many scientists doubt the magnetic nature of so-called “earth magnetism.”

VI. GENERAL CONCLUSIONS CONCERNING ORGONE ENERGY WHICH IS NOT BOUND TO FORMED MATTER.

We shall now summarize those basic characteristics of the orgone energy which are so clearly expressed in our Experiment XX and other manifestations and which confirm orgone-physical observations made many years ago in still very primitive bion preparations, in the development of cancer cells and in the atmospheric orgone.

1. Pulsation, that is, alternating expansion and contraction, is a basic characteristic of the orgone energy. In the realm of the living, it functions specifically as “biological energy.” The pulsation can be demonstrated by a pendulum in the energy field of a metal sphere; further, visually, on the smooth surface of a lake; in all kinds of living matter, in the total organism as well as in every individual organ.

2. The earth (like probably all planets and fixed stars) is surrounded by a rotating orgone envelope of yet undetermined depth; this orgone envelope rotates more rapidly than the earth itself but in the same direction of West to East. The reversal of the direction of this movement to one from East to West has a relationship to rain formation, at least in the region in which these observations were made.

3. Like the atmosphere, humus contains orgone energy. Humus itself consists of bionous matter. By increasing the bionous disintegration in water, one obtains an increase also of the organonotic potency of the water, from a normal value of about 3 to 4 OP up to 25 to 70 OP, compared with the OP (= 1) of distilled water.

4. Orgone energy in high concentration, above about 25 OP, colors water yellow.

5. Orgone energy which at room temperature is equally divided throughout the fluid, contracts under the influence of cold, forming a brownish-yellow core in the ice.

6. Protoplasmatic matter can develop from concentrated free orgone, that is, orgone which is not bound to any particles; from the plasmatic bionous matter, protozoa develop.

7. The process mentioned under (6) apparently is of a general nature and significance: it points to a natural process according to which matter developed from orgone energy, an energy which has to be considered the primordial cosmic energy in general.

8. To judge from Experiment XX, the living plasm on our planet developed before the formation of coal substance and carbohydrates. Coal is a secondary product of past life. It follows that the biochemical molecules were not, as is generally assumed, present before the development of plasmatic substance; rather, the biochemical molecule developed in the process of plasmatic organization as one of its mechanical constituents.

9. Orgone energy has the characteristic of luminating when two orgone energy fields make contact. This is what the prin-
ciple of the orgone energy field meter is based upon.

10. The basic characteristics of the cosmic orgone which have thus far been discovered are, then, pulsation, lumination, condensation into matter, irritability, and heat formation; all these are qualities which specifically characterize the basic process of living matter.

Orgonon, Maine, U.S.A.
June, 1945.
Projeto Arte Org
Redescobrindo e reinterpretando W. Reich

Caro Leitor
Infelizmente, no que se refere a orgonomia, seguir os passos de Wilhelm Reich e de sua equipe de investigadores é uma questão bastante difícil, polêmica e contraditória, cheia de diferentes interpretações que mais confundem do que ajudam.
Por isto, nós decidimos trabalhar com o material bibliográfico presente nos microfilmes (Wilhelm Reich Collected Works Microfilms) em forma de PDF, disponibilizados por Eva Reich que já se encontra circulado pela internet, e que abarca o desenvolvimento da orgonomia de 1941 a 1957.

Dividimos este “material” de acordo com as revistas publicadas pelo instituto de orgonomia do qual o Reich era o diretor.
01- International Journal of Sex Economy and Orgone Research (1942-1945).
02- Orgone Energy Bulletin (1949-1953)
03- CORE Cosmic Orgone Engineering (1954-1956)

E logo dividimos estas revistas de acordo com seus artigos, apresentando-os de forma separada (em PDF), o que facilita a organizá-los por assunto ou temas.
Assim, cada qual pode seguir o rumo de suas leituras de acordo com os temas de seu interesse.
Todo o material estará disponível em inglês na nuvem e poderá ser acessado a partir de nossas páginas Web.

Sendo que nosso intuito aqui é simplesmente divulgar a orgonomia, e as questões que a ela se refere, de acordo com o próprio Reich e seus colaboradores diretos relativos e restritos ao tempo e momento do próprio Reich.
Quanto ao caminho e as postulações de cada um destes colaboradores depois da morte de Reich, já é uma questão que extrapola nossas possibilidades e nossos interesses. Sendo que aqui somente podemos ser responsáveis por nós mesmos e com muitas restrições.

Alguns destes artigos, de acordo com nossas possibilidades e interesse, já estamos traduzindo.
Não somos tradutores especializados e, portanto, pedimos a sua compreensão para possíveis erros que venham a encontrar.

Em nome da comunidade Arte Org.

Textos da área da Orgonomia Física.
Texts from the area of Physical Orgonomy.
International Journal of Sex Economy and Orgone Research

Orgone Physics

01 Wilhelm Reich. Thermical and Electroscopical Orgonometry 1941
International Journal of Sex Economy and Orgone Research Volume 3 Number 1 1944
Interval 6-21 Pag. 1-16

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International Journal of Sex Economy and Orgone Research Volume 3 Numbers 2 3 1944
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03 Notes. The Orgone Energy Early Scientific Literature 1944
International Journal of Sex Economy and Orgone Research Volume 3 Numbers 2 3 1944
Interval 95-101 Pag. 191-197

04 Wilhelm Reich. Orgone Biophysics, Mechanistic Science and Atomic Energy 1945
International Journal of Sex Economy and Orgone Research Volume 4 Numbers 2 3 1945
Interval 3-6 Pag. 129-132

05 Wilhelm Reich. Experimental Demonstration of Physical Orgone Energy 1945
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01 Wilhelm Reich Orgonotic Light Functions 1942-1944
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02 Wilhelm Reich A Motor Force in Orgone Energy 1947
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03 Wilhelm Reich Orgonotic Light Functions II 1947
Interval 2-4 Pag. 49-51

05 Wilhelm Reich Orgonotic Light Functions III 1948
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Interval 12-29 Pag. 201-234

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18 William Steig. Some Notes Inspired by Reich 1952
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19 Werner Grossmann. Observation of Orgone Energy Lumination 1952
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20 R. H. Atkin. A Space-Energy Continuum
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21 A. E. Hamilton. Childes-Eye View of the Orgone Flow 1952
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02 Notes Editorial. Regarding the Use of the Orgone Accumulator 1949
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03 Notes. Questions Regarding Orgone and the Orgone Accumulator 1949
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05 Notes. Questions and Answers Regarding the Orgone Accumulator II 1949
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03 Maria Courie. Plant Response to Orgone Energy 1955
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