Some Observations on the Relationships between Light & Electricity

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(Dated: Copyright 1990-2008 Etheric Rain Engineering Pte. Ltd. Updated October 9, 2008)

I. INTRODUCTION

Friends, avoid the darkened chamber, Where one pinches off the light, Which must bow in lamentation While distortions mock our sight. Over-credulous believers Through the years there’ve been enough; In the noggin of your teachers Reign illusions, specter-stuff. – Goethe

When we open our eyes and view our surroundings this is possible because of a phenomenon we term “light.” What is the origin and cause of this “light” so necessary for optical perception of the objective world? Battles have raged over this question. It has been claimed to have been answered many times over the centuries, but has it truly been answered? Is light a particle, a wave, a Janus-headed aberration mixing the two and confusing the mind, or is the expression of a cosmic force which the gravity-bound viewpoint of modern science is unable to understand in its entirety due to definable yet immeasurable aspects? At the root of all this is the question of the formation of colors. Modern science claims that color is a mere rate of vibration impinging upon our eye, that it is but an illusion... But there are flaws in this view, serious flaws which anyone of average intelligence can see for themselves if they but look.

Modern conceptions of color formation generally derive from the basic experiment of Sir Isaac Newton where he closed himself into a dark room and allowed in only the tiniest slit of light. This slit of light was directed to pass through a prism and onto a white surface. The result was the spectrum of red, orange, yellow, green, blue, indigo, and violet. Newton concluded from this single experiment that the colors of this spectrum are “hidden” or “contained” in light and can be extracted with the prism. Newton declared that as a result of his experiments he discovered that “white” light contains all colors and black is the absence of all colors. Certain pigment mixing experiments may mislead one to consider this viewpoint, but a full analysis of prismatic experiments will quash this error in thinking.

The linear mode of thought arising along with the Newtonian concept of the spectrum has given rise to modern conceptions of the “electromagnetic spectrum”. This grand spectrum is one in which all energies, be they light, sound, diverse electrical waves, etc., are claimed to line up like well-trained soldiers marching in perfect order, from zero to infinity, in hierarchy of what is alleged to be their true nature ⚆ their vibratory rate. While there can be no doubt that the electromagnetic spectrum has a specific, engineerable reality, whose conception has provided us the many volition-saving products of technology, we should not jump to the conclusion that it is an all-encompassing reality until we take all experimental considerations into account.

II. UNIVERSAL APPROACH

While Newton followed the analytical, scientific methods in his path of discovery, the great poet Goethe took a more universal approach. Rather than simply studying light and color by shutting himself into a dark room and reproducing the experiments of Newton, which of course he did very methodically to assess the results firsthand, he chose to discern the nature of color in its full glory and expression in the manifest world.

Goethe accepted that Newton’s experiment showed scientific truths, but he was not so rash as to leap to the same hasty conclusions. He could clearly see that Newton was in error in his deduction of the red-orange-yellow-blue-indigo-violet (ROYGBIV) spectrum as a primary attribute of light alone. Goethe clearly saw that the ROYGBIV spectrum was a manufactured product of a specific arrangement of slit and prism, a secondary effect of the process of color formation.

In Newton’s theory of gravity the most important question goes unasked: that of how the falling apple got up in the tree in the first place, what made it grow through various formative stages into its fruiting stage ⚆ all the time growing in the opposite direction to the force of gravity? In this same manner the larger part of color formation theory ⚆ that gleaned from observing and understanding the essence of light and color in Nature ⚆ was lost from this gravity-bound viewpoint.

Now, let us consider that glamorous, classic experiment of Sir Isaac Newton. He is isolated from the natural field of light in his darkened room, with his apparatus allowing in only a
small beam of light which is directed through a tiny aperture which then permits a smaller slit of light through, then on through a prism onto a white surface (actually Newton ran the light through a circular hole, but we will consider the more common slit-form of the experiment). The concept of the "ROYGBIV spectrum as the absolute structure of the components of white light" comes from this setup (just think of it ... studying light in the dark!). Now let us take over the experiment and widen this slit: green disappears, with the white of the projection surface taking its place. We see two bands of colors, red-yellow and blue-violet, facing each other as polarities across a white middle. Bring the slit together again and green again reappears when yellow and blue intermingle. Forgetting for the moment all sorts of theories, examination of the observable phenomena shows that color formation consists of border effects between light and dark areas. The red is over the shadow, or black portion of the projection and the yellow is in the illuminated, or white portion. Blue appears on the white and violet on the black. The results of this experiment can be more easily observed by looking through a prism at diagrams which illustrate the borders in various arrangements.

![Diagram](image1)

FIG. 1. View chart through a prism to see the various color phenomena appearing at the borders between light and dark.

Let us continue our experiment by reversing the borders across which our experimental light is travelling. Rather than running the light through a slit, let us run it around an object whose width can be easily manipulated. If we are looking through the prism at a card let us look at several dark lines of varying width on a white background. What we now see is another spectrum: yellow, red, magenta, violet, and blue (YRMVB). If we widen the object or line magenta disappears and we have darkness separating our two polarities, yellow-red and violet-blue, red and violet over the dark side of the slit, and yellow and blue over the illuminated side.

If all the colors of the Newtonian spectrum are contained in light, then shouldn’t all the colors of this second, or Goethean spectrum be contained in darkness? The actions of infrared and ultraviolet rays which are below and above the Newtonian spectrum are well known and studied, but what appears above and below the Goethean spectrum? Research carried on by Professor August Kirschmann has shown that "a broad zone distinguished by the absence of ultra-violet rays extends into the colorless light adjacent to the yellow. Adjoining the blue there would probably also turn out to be a zone with the absence of infra-red rays. To the theories of present day physics this is a mystery, since according to these theories ultra-violet as well as infra-red rays must be present in the colorless zones, just as in any white light."

We must also question the wavelength theory of light. It no doubt has an engineerable reality attached to it, but how does magenta fit in? It doesn’t, even though green and magenta can be clearly discerned as being formed from the two color poles. All prismatic colors are not allowed into the "electromagnetic" spectrum, and thus magenta must have no wavelength. It is considered to be a secondary mixture, unlike it’s polar opposite, green. How is the wavelength deduced? By use of diffraction gratings and similar objects which manufacture colors along borders. Thus it may be considered that the wavelengths have a certain reality, but that it is a secondary activity related to the interaction of the materials used in its production, and thus may not be a primary attribute.

Thinking along these lines gives rise to grave concerns with the present conception of the linear electromagnetic spectrum. This is not to say that the experiments giving rise to this conception are incorrect, rather, their interpretation has produced a comprehension of only part of our functioning reality, and with the attitude that this is the whole story on the energies of
the universe.

Goethe combined the two projectable spectrums together to create a color circle (Fig. 3 in the above chart) which takes in the true structure of prismatic colors. Let us start travelling his circle at red, then follow around to orange, yellow, green, blue, purple and then back to red. To fully understand this diagram we must define the colors as Goethe used them in this circle: "red" is what we shall term magenta, it is the central prismatic color in the dark slit experiment, Goethe also termed it pur-pur, peach-blossom, or pure-red; "orange is what is red"; yellow, green and blue are as they are, and "purple" is violet. Goethe had clear reasons for these designations. It is outside the scope of this present article to explore them or the full range of experiments available along these lines. We shall suffice here to organize the basic structure of color phenomena.

There are many color circles presented by proponents of various theories of light and color, and these cover a wide range from various interpretations of Newton’s spectrum through to industrial pigment grading charts. Goethe’s color circle is based on actual prismatic phenomena. This color circle is expressed around the six pointed star, the ancient designate of the maxim "as above, so below".

Goethe felt that green was actually the lowest among the “living” colors (white, black and grey being "dead"). As a mixture of what he considered the two true colors, yellow and blue, it was closest to the grey, created by mixing black and white. He said, "Green reminds us of a molecular mixture", and he saw green as the dissolving of light via the mixture of yellow and blue.

On the other hand he called magenta “pure red” and considered it the ascent of color towards its highest point. "The path to culmination in pure red appears more dynamic; the appearance of green has more of an atomistic nature." It is clear that Goethe considered green and magenta to be polar opposites.

For reasons now becoming clear the light slit (ROYGBIV) spectrum will be forthwith designated as the “physical” spectrum, and the dark slit (YRMVB) spectrum as the “etheric”. It will be discerned that this true structure of color has a direct and profound relationship with the structure and function of the human body.

### III. LET THERE BE LIGHT...

An interesting and important researcher in color theory was Dinshah Pestanji Ghadiali. Known as “Dinshah”, in the 1920s he introduced his color healing system known as Spectro-Chrome. While Dinshah was an ardent disciple and tireless defender of Newton and his theory of color, it is apparent from the study of Dinshah’s conception of the structure of color that his system is quite useful for understanding the Goethean color circle. In fact, the prismatic colors around the six-sided star as presented by Goethe are the fundamental structure of the Dinshah Spectro-Chrome system as seen in the chart at right. Dinshah’s research was based on the works of Newton and Edwin Babbitt. Curiously, Goethe’s color theory never gets even the slightest mention in a shelf full of books and magazines written by Dinshah.

Dinshah’s yogic sensitivity combined with his scientific research provided him with indications that this color structure is directly related to the function and structure of the human body. Red he saw as being directly relating to the function of the liver and the red blood cells. Violet relates to the spleen. The "white" blood cells, Dinshah claimed, are really "violet" in nature. To green Dinshah gave the role of governing the head and its functions. This triangle of liver, spleen and head relates directly to the red, violet, green triangle. Green is also the dominant physical color and is used to stabilize physical functions of the body. To the Yellow-Blue-Magenta triangle Dinshah related the functions and flows of the body. Yellow acts as a motor stimulant for muscles. Blue, a motor depressant. Magenta rules the energetic flows and was used for balancing the sexual energies and the heart.

We can see in this structure a direct correlation to Goethe’s idea of green being "atomic" and magenta being the higher, upward striving side of the color circle. Dinshah stated his belief that green and magenta were "the same color", but that they rotated in opposite directions during their oscillations in the ether. In effect he agreed with the wavelength theory, but felt that magenta had the same wavelength as green.

To get the 12 colors used in Dinshah’s Spectro-Chrome therapeutic system five glass slides were used: Red, Yellow, Green and Violet, all "tuned" for each individual color treatment machine to produce the proper full color circle. They were thus called "attuned color waves" and they were mixed as follows. Red + Yellow = Orange; Yellow + Green = Lemon; Green + Blue = Turquoise; Blue + Violet = Indigo; Red + Blue = Scarlet; Red + Violet = Magenta; Violet + Yellow = Purple. What Dinshah considered to be the etheric colors are italicized.
The operation of the Spectro-Chrome system was simple, but precise and profound. Specific colored lights were projected upon a person, either on the whole of the body or on specific parts. Long standing, or sluggish conditions, such as tumors, were seen to be on the ultra-green, that is from green to violet. Infra-green colors, those from red to green, were used to “normalize” these conditions. For recent, sudden, or red conditions, such as burns, bruises, etc., one would normalize using the ultra-green colors. For conditions relating to the circulatory and sexual functions of the body one would use the etheric colors between red and violet: scarlet, magenta and violet.

Color, consciously or unconsciously, is a profound alterant on our human physical, mental and spiritual states, the fundamental functions of those curious beings who stand fully upright between the lightness of heaven and the darkness of earth, and are structured and sustained by that interaction.

IV. SKYWARD

Should your glance on mornings lovely Lift to drink the heaven’s blue, Or when sun, veiled by sirocco, Royal red sinks out of view  Give to Nature praise and honor, Blithe of heart and sound of eye, Knowing for the world of color Where its broad foundations lie. – Goethe

Let us observe the sky. During a cloudless day we see two distinct atmospheric colors, yellow and blue, which we now know Goethe considered as the only true colors. The yellow is the dot of the sun and the blue is the dome of the atmosphere. The red-yellow pole of color formation is observed as the sun moves from overhead towards the horizon, it progressively darkens through orange-gold-red colors of diverse variance, until it disappears beneath the horizon. As the sun sinks the blue sky turns darker towards the black sky of night, lit only by the stars. Mountain climbers and jet pilots have reported seeing the sky turn to violet at high altitudes. We can see that this is the blue-violet pole.

In terms of propagation the yellow light of the sun can be seen as a radial transmission wave, or rays, directly connecting the atmosphere with the solar body itself. This red-yellow pole is a longitudinal, instant direct connection. At night the longitudinal beam of stars can be seen. It is possible, given this line of thought, to conceive of the probability that the starlight we see is an instant transmission, a direct “real-time” connection to the star we are viewing.

The domed blue sky can be attributed to the luminescence of the atmosphere by the solar wind that energetic stream which the sun continually feeds into space. The solar wind takes approximately eight minutes to travel to Earth from the Sun, though some atomic particles carried by it may take longer. It cannot travel the distance to other star systems and this is why we see only the longitudinal rays of stars at night. We could see them during the day if it were not for the blue sky. Actually, a transverse light filter may be manufactured by digging a deep well and climbing down to the bottom. One may use this device to view stars during the day. Viewing distant objects through a tube produces a similar, but less profound effect, the objects appear more clearly.

As the solar energy cannot be separated from the life force, we look to Wilhelm Reich’s observations of atmospheric orgone for help in understanding the structure of this blue atmosphere. Reich discovered, learned to isolate and scientifically study the life energy which he termed “orgone”. Its observable form is that of a pulsing vesicle which has specific properties. Reich reported that among the observed optical properties, the orgone was bluish and that it moves through the atmosphere in a “corkscrew” pattern. We can see this as a progressive, life-positive, transverse wave. Once one begins to “read” the clouds, they will notice this corkscrew pattern as a regular function of cloud formation. Its signature manifests in diverse metamorphosis, but once recognized, it will be readily noticed.

V. FROM THE ETHERS

The glow retreats, done is the day of toil; it yonder hastes, new fields of life exploring; Ah, that no wing can lift me from the soil, upon its track to follow, follow soaring... – Goethe

These words running through the young Nikola Tesla’s mind released from within his imagination the discovery of the rotating electric field, the result of which is the polyphase AC current in use worldwide today. Through this signal instance one can see that Goethe’s works have transformed our world. However, the potential within them for far greater things will be appreciated by those with the eyes to see. Carrying with him the profound poetic vision of the 19th-century natural scientists, Tesla went on to far greater inventions, inventions whose understanding is not possible with modern conceptions of the physical nature of the universe. He speaks of wireless power extracted from the luminiferous ether and delivered freely to anywhere on earth; of transmitting and recording thought through electrical analogs of the optic structure. There is good reason to believe that Tesla had working models of these fantastic devices.

Rudolf Steiner, editor of Goethe’s scientific archives at Weimar following his university years, was a prolific writer and lecturer. Among his thousands of lectures, ranging from
simple means whereby one may attain stages of higher consciou-
sness on through medicine, anthropology, philosophy, history, he gave three full scientific courses, Warmth, Light
and Astronomy. Steiner was no stranger to Goethe’s color
theories or to the science of electricity.

Steiner attributed all energetic activities to the "sensible", the "supersensible", and the "subsensible" realms. The sensi-
ble is what we directly perceive with our physical senses. The supersensible is that which is above the normal range of our
senses. In order to "see" into that realm one’s senses must
be in an aware and open state, which allows a higher con-
sciousness to function. That which is below our senses, the "subsensible", is beneath matter and is studied through the
dissection and dissolution of material substance. This is most
especially the case of the products of material dissolution, the
protons, neutrons, electrons and related cloud chamber pat-
terns claimed to be particles. We need meters and machines
to "sense" this realm.

While light has the eye to perceive it, no organ has devel-
oped in the human body for the perception of electricity and
thus it is subsensible. Electricity and electrons are very real,
our electronic technologies depend on their reality for opera-
tion. However, we must understand their true place in the
structure of the universe if we wish to progress in our knowl-
edge.

According to Steiner the supersensible realm contains four
ethers, Life, Tone, Light and Warmth, which are reflected in
the four sensible states of matter, solid, liquid, gaseous and
plasmic. Steiner stated his impression that electricity is the
fallen Light Ether. It is an interesting thought, for which I
have not as yet found any correlation in his scientific works.
However, our knowledge is always progressing with further
research and we shall see a relationship emerge from acknowl-
edging certain polarities discovered in electrical waves.

In order to progress in our understanding of the relation-
ship between light and electricity we must interject some ba-
sic concepts on projective geometry. Projective geometry was
considered by Steiner to be the truly universal geometry, of
which the Cartesian system is but a subset. Relegated to pure
inertial matter, the Cartesian x,y,z coordinate system fails in
interpretation of the geometry of living systems.

In projective geometry the point and the plane are the same
object at different perspectives. This is quite easy to perceive
with the use of the imagination: envisage a minute point, plas-
tic in nature; this point begins to expand until we see it as a
ball; we can put our arms around this ball as it continues to
expand like a balloon being filled with air; as our the ball ex-
pands our arms move wider and wider apart, until when the
ball is expanded to infinity our arms are stretching straight out
at our sides. We are here against a plane, and can see that the
plane is a sphere expanded to infinity. If we take our plane at
infinity and progressively reduce it, it becomes again a sphere
and finally a point. Further study will indicate that the polarity
of point and plane are mediated by the line, or ray.

Back to our model, where we may continue reducing on
past the observable point to a sphere expanding towards the
infinite plane on the interior of the point. This reverse situa-
tion is in the realm of counterspace. Steiner considered the etheric
energies to be operating in this inner space. Modern science,
of course, tries to penetrate the inner realm of matter, but does
so in a crude and destructive manner, destroying what it looks
into, and mistaken the particles of decay for the "building
blocks".

VI. ELECTRICITY

Electricity has always been recognized as operating with in-
herent polarities. We know of positive and negative electricity,
obtained through friction against glass and resin and related
substances. The polarity of the colors of the electric fields
surrounding the anodes and cathodes in vacuum tubes are well
known, they are respectively reddish, with radial forms, and
bluish, with planar (sphere at infinity) forms. These colors
and shapes are directly related to atmospheric color, but in re-
lationship to electrical power usage we must turn to certain
modern researches to observe the full range of polarities in-
erent in transmitted electrical waves.

The researches of Eric Dollard have provided us with an
understanding of the basic nature of electrical propagation.
Dollard has demonstrated, through experimentation with dis-
charges from inductors and capacitors, that the realm of elec-
tricity contains many polar phenomena.

In experiments in Borderland Labs, circa 1988, the polar-
ities of magnetism and dielectricity, and their geometric re-
lationships in transverse and longitudinal waves, were clearly
demonstrated (see references 7,8,9). Dollard demonstrated the
inverse relationship between the coil, or magnetic inductor,
and the condenser, or dielectric inductor, and their usage in
propagation of the electrical polarities.

The coil, or magnetic inductor, is used for the storage and
return of magnetic energy in electrical circuits. This energy is
stored in space, being the magnetic field around the inductor.
The coil is spatially open, and this space is used for the stor-
age and return of the magnetic energy. The discharge from
a magnetic coil, being electromagnetic in nature, is taken as
the magnetic pole in our developing picture. This pole propa-
gates as red/yellow discharges, suggesting a relationship with
natural color formation.

When the magnetic pole predominates, as in electromag-
netism, the propagation has been shown to be a retarded trans-
verse wave, slower than the speed of light. Eric’s engineering
mathematics, solidly based on a thorough study of the works
of Tesla, Steinmetz and Heaviside, describes the transverse
electromagnetic wave (TEM) to be like a sail against the wind,
which allows us to easily picture its retarded propagation char-
acteristics.

As all electricity is considered to be electromagnetic in
nature, it is easy to see why people have trouble understanding
the reality behind Tesla’s work. Electromagnetism is only one
side of electrical phenomena, just as Newton’s spectrum is only one side of color phenomena. But let us move on to learn of the “other side” of electricity, which has really been right in front of us all along.

The condenser, capacitor, or dielectric inductor, is used for the storage and return of dielectric energy in electrical circuits. Dielectric energy commonly manifests as “static” electricity, though it is anything but static. The condenser is spatially closed and the dielectric energy is stored in counterspace, that is within the component, which consists of insulating materials that are generally considered as not allowing electricity to pass. The dielectric manifestation of electricity is taken as the electric pole, which propagates as blue/violet sparks when discharged from a condenser.

Orgone accumulators are a type of capacitor and the blue optical properties of orgone may be seen when using one. This indicates a strong relationship between dielectricity and orgone.

The electrical pole is dominant in the transmission of Longitudinal Magneto-Dielectric (LMD) Waves which have been measured at speeds well above the speed of light. This is the form of electricity Tesla was propagating from his Magnifying Transmitter. The LMD wave is totally misunderstood in modern electrical theory, and is functionally a direct connection between transmitter and receiver, which renders them as one unit.

This LMD propagation can be best understood from the perspective of projective geometry. Let us take the earth as an electrical plane at infinity, which it is as far as electrical and geological engineering generally consider it. What Tesla did with his Magnifying Transmitter was to change the electrical perspective from the plane to the point! Thus during the operation of the Tesla Magnifying Transmitter the earth became a single point electrode which could be tapped at any point as though it were the output terminal of the transmitter.

In projective geometry the line mediates between point and plane and in our example the LMD wave appears to manifest as a direct line between transmitter and receiver. Let us picture this line as a solid rod. If one pushes the rod longitudinally, the opposing end reacts instantly, there is no time lag. On the other hand, the TEM wave can be pictured using a piece of rope that is given a sharp shake, the wave can then be seen travelling down the length, losing energy as it goes, taking its time to reach the end.

When the magnetic and dielectric inductors, now pictured as polar in function, are combined in parallel, upon electrical stimulation there is created an oscillating circuit (OC). Depending upon the specific engineering of the OC it can produce predominantly TEM or LMD waves. Oscillating circuitry allows us communication via radio waves of diverse sorts.

There is an interesting analogy of oscillating circuits to the human structure: The inductor is like our coiled intestines representing the metabolic pole of the body and the capacitor relates to the plates of the skull, connected with the nerve polarity in the body. In the body the nerve and metabolic poles interact to allow the rhythmic system to function, allowing us to communicate using our breath.

VII. ANALOG COMPUTERS

To fully understand the polarities inherent in electrical propagation we turn to the use of analog computers in the study of electrical propagation. These computers are demonstrated, with measuring equipment, in reference 8.

At left is a schematic of an assembly of two capacitors and two inductors forming an element of an analog computer used to study the characteristics of TEM and LMD waves. The transverse and longitudinal components move at 90° to each other, that is the transverse along the transmission line, and the longitudinal at 90° to it. This can be understood more clearly from the following diagrams:

At right is an analog computer of a classic transmission line for use in determining the characteristics of TEM waves. The power source is at left. Magnetic distribution, as measured by a pickup coil, is highest at left and lowest at right. Dielectric distribution, as measured by a unique multipactor-photomultiplier detector, is lowest at left and highest at right. The magnetic and dielectric components are in space opposition. Finger testing shows that the coils are hot on the left where magnetism is highest and cool on the right where it is lowest, and the capacitors are cool on the left where dielectricity is lowest and warm on the right where it is highest. This type of circuit produces weak oscillations and has slower than light propagation characteristics. The TEM wave can be seen
as an unnatural form of electrical propagation. We can relate this to the concept of Newton’s apple falling.

At left we have an analog computer of the longitudinal magneto-dielectric component of an electric wave which travels at 90° to the TEM component. This configuration is used for determining the character of LMD waves. Source, again, is at left. Magnetic distribution measures low at the left and rises towards the right. Dielectric distribution measures low at the left and high at the right. The components are in space conjunction, in contradiction to the Law of Electromagnetic Induction which says these components must be in quadrature relationship in space and time! Finger testing shows coils cool on the left rising to hot on the right in direct relation to the quantity of magnetism distributed through the circuit, and capacitors are cool on the left and hot on the right, again in direct relationship to the distribution of dielectricity in the circuit. This circuit produces strong, sharp oscillations (high “Q”). This is the natural form of electricity, as Tesla well knew, and propagates faster than light. We can relate this to the growth of the tree which produced Newton’s apple.

We can see from these observations that electricity and light are directly related as inverse functions of color formation and wave propagation phenomena. We thus build a picture in our imagination of electricity being the fallen Light Ether. One piece that doesn’t fit exactly is the previously mentioned vacuum tube anode/cathode color scheme which has the same color/propagation characteristics as atmospheric color; there is no reversal in that instance. This may be due to the nature of electricity operating within the vacuum tube, and this possibility is being considered. In a vacuum tube driven Tesla Magnifying Transmitter we would get LMD waves propagating from it, but internal to some tubes we could get opposing color/propagation effects, so a logic develops as we look into this question.

This chart summarizes and attempts to map the salient polarities of the generalized color/propagation characteristics of atmospheric light and electrical waves & discharges into ge-
The crude and improper concepts of electricity and color formation which the modern world view has shackled our civilization with must be overcome. In order to progress to higher, more refined levels in the generation of power to sustain our civilization’s endeavors it is fundamental that all energies are properly understood and defined. The only way to do this is to observe the totality of phenomena with our full range of human capabilities, and work upwards from there. This will elevate the characteristics of our endeavors towards those which are most life-positive and fruitful.

VIII. REFERENCES

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