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Science is the relationship of beings to the universe in which they exist.

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This material on the known science was assembled by W. B. Smith from Data and of Change from

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beings who are more advanced than we are.

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We find ourselves in this universe and we are aware of it.

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We strive to understand it and to do so we use all means at our disposal.

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We observe and speculate. We look and sometimes we find.

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We ask many questions and get many answers.

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If the questions are proper, we get proper answers.

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But if they are not proper questions, we get indefinite answers or no answers at all.

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Sometimes we cannot distinguish between cause and effect or the phenomenon and the effect of the phenomenon.

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Sometimes we mistake the shadow for the substance and pass by the reality where we pursue the image.

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Often we are so enamored of our own brilliance that we cannot see the little grits of truth that line our way.

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Many tiny nuggets of truth lie buried at our feet and if we are not too proud to dig, we will find them.

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There are certain fundamental truths in this universe and if we are prepared to accept them, we can use them as tools for its better understanding.

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The universe is understandable. Otherwise there would be no awareness in it.

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For awareness is the initiation of understanding.

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No principle can be described or satisfactorily defined except in terms of concepts which are more basic.

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Until one basic concept is reached, which in itself cannot be defined at all, but which will define all other concepts.

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The universe contains no anomalies and the appearance of an anomaly is warning that our understanding is inadequate.

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Mathematics must be the servant of understanding and not its master.

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Equations by their very nature cannot discover.

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They can yield only relationships derived from the initial statements and which were inherently in them when they were stated.

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Truth is not hidden. It is available to all and is the same for all.

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Appearance differences must be due to inadequate understanding.

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Understanding of the universe comes about only through increasing awareness of it.

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The basic concept.

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Whatever might be the origin of this universe, the one thing we can be reasonably sure that it is within nothing at all.

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If it started, then it must have started from nothing at all.

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If it always was, then it has nothing at all around it.

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Whatever might be beyond this nothing at all, we have no way of knowing, for we are within and of this universe and have no concept beyond it.

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This idea of nothing at all is the most difficult one to come to grips with.

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But it is an absolute necessity to an understanding of even the first idea of cosmology.

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Nothing at all means exactly what it says, nothing at all.

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No space, no time, no substance, no energy, no change.

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To approach it, one must slough off all reality and proceed deliberately into the void of nothingness.

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It is something extremely personal which must be experienced by the individual as a basic exercise.

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It is something which cannot be taught.

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Most people recoil from the idea of nothing at all feeling that it is akin to annihilation, which is.

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And we must know of nothing at all before we can understand the basic concept upon which our universe is built.

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Subsequent lessons are futile without this basic understanding.

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Having become aware of nothing at all, there is only awareness and nothing at all.

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And awareness injects into nothing at all a concept which will render it unique.

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Since no concept of any kind can be defined except in terms of Africa's more basic, this concept cannot be defined.

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And we may use it only in defining concepts which are less basic.

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Since this concept is the basic one of our universe, its derivatives must be the basic parameters of it.

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And in itself it must remain the nameless reality.

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We do not know if this basic reality exists independently from awareness, or whether one is the consequence of the other,

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or whether in the final analysis they are in fact the one and same.

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In any case we do know, or think that we know, that reality does exist and we are aware of it.

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But we do not know how far beyond us the awareness extends.

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And we must either postpone this determination, pending a better understanding,

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or accept the statements of other entities who are presumably more advanced than we are,

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that awareness is universal and extends throughout all reality,

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and has a particular relationship here too which will be discussed later.

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Our physical senses are very limited, and we can observe directly only certain aspects of our universe,

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and these only within strictly limited ranges.

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However, as our understanding increases, we are able to devise ways and means for extending our senses,

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both in range and scope, which in turn leads to better understanding.

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But we must always remember, in thus extending our senses, to distinguish between the language of the observation

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and its translation into the language of our senses, lest we miss the phenomenon while inspecting its effect.

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Also, since the information we get through extension to our senses is essentially secondhand,

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we must be doubly sure that it is truly what we think it is,

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that it is in fact the truth, the whole truth, and nothing but the truth.

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There are two ways of learning, memorizing and understanding.

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No matter how good memory is, it can never do more than regurgitate that which has been assimilated, without form and undigested.

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The library is an excellent memory, but its understanding is nil.

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Understanding, however, allows one to know, and is not limited to material which has already been assimilated.

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Furthermore, understanding can extrapolate while memory cannot even interpolate.

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Therefore, in dealing with the basic concept of the universe, which is within nothing at all,

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near memory is not good enough.

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Understanding must be used, and otherwise the whole exercise is meaningless, and we cannot know.

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In striving to attain the knowledge of nothing at all and the basic concept of reality within it,

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words are hopelessly inadequate, because by their very nature words are merely symbols of concept

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in which there is some degree of common understanding.

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As yet, we have no words for that which is basic, and we must attain the understanding of it

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and then carry this understanding into whatever language we find convenient.

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But however we may approach the subject, the understanding of it is entirely personal.

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As one of the people from elsewhere once stated,

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I cannot teach you, I can only help you to learn.

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The Fabricate Concept

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Having understood nothing at all and the basic concept of reality within it,

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we must next understand the relationship of awareness to these concepts.

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Whether or not awareness and reality are the one and same is probably the Creator's secret,

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but to us at least they seem to be separate and through the one we observe the other.

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Realizing that at this stage we have not yet even approached the basic or derived parameters of the universe,

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we have no understood framework within which to explore the relationship of awareness to reality.

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Also, since the only basic concept we have at this stage is the Nameless One injected into nothing at all,

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it is only this which we can use to define higher concepts.

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Therefore, the only possible understanding of the relationship of awareness to reality

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must be determined from that which is inherent within the understanding of both.

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We could, very blue, define the quadrature concept as the relationship of awareness to reality

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and to some a definition of this nature may be adequate,

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but it will carry little or no understanding

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and great difficulties would arise later when this concept is needed

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to understand the derivation of and relationships between the twelve fundamental parameters.

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Therefore, a little time and effort spent at this stage to understand this relationship will pay large dividends later.

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Through the Symbolic Award and through analogy, an attempt will be made to bracket this concept

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and to bring it into approximate focus,

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but after that only individual and personal effort will be bring into precise focus and understanding the point.

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Our personal experience with awareness is largely confined to the operation of our senses.

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We appreciate something and can see all sides of it.

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We usually have a pretty good idea of what it looks like.

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Also, if we can feel it all over, we can conclude quite a bit about its shape, temperature, texture, etc.

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We'll get more information from any sounds which it may make or any smells which it may exude.

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Maybe we may even want to taste it.

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If we can get at it sufficiently to use most or all of our senses on it,

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we can form a pretty good idea of what it is and if we'll met it again, we would probably recognize it.

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But then is the mechanism by which our awareness subtinges this information.

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If we find ourselves in a certain situation such as being caught out in a storm,

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our senses respond to certain stimuli and will arrive at certain conclusions.

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Thereafter, we have a degree of understanding of that particular situation

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and would have no trouble recognizing or identifying it if we ever met it again.

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Emotional reactions stemming sometimes from very restricted sensual stimulation

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can be distinguished and identified and to a certain extent have drawn to others

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if they are coded through their own experience to receive such information.

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Under these circumstances, we can say that such emotions are understood,

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but just what is the relationship of awareness to them?

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When we get into the area of abstractness, as mathematics,

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and the like,

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into which extend the range and scope of our senses,

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but there still exists that mysterious relationship between awareness and reality

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in the transcendental area involving extrasensory perception,

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destination, and those other capabilities of the mind, which is yet our only favorite,

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we also find a definite and determinable relationship between awareness and reality.

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In fact, anything about which we can think, if it in any way involves an aspect of the universe,

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must implicate and make use of this relationship.

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In the ultimate, the quadrature concept is the link by which awareness observes

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and understands reality.

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Mathematics is a discipline in which many people have a fair understanding,

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and within which one facet of the quadrature concept manifests most elegantly.

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Geometry, complex algebra, and the vectors all make use of a special relationship

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in which one line is at right angles to another.

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Various properties, some of which are obvious, and some of which are not so obvious,

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have been described to this quadrature relationship between lines.

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In fact, whole mathematical philosophies have been developed around this relationship,

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and their practical application has given us alternating electric current, radio, aeronautics, and many others.

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In mathematics, the quadrature concept manifests as two lines mutually at right angles,

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or to a line which has been subjected to an operation by the square root of minus one from its previous position.

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Successive operations yield relationships which are the cornerstones of various branches of mathematics.

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But the universal quadrature concept extends much beyond its mere mathematical application.

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Interesting though, this may be, and is in fact the concept which links awareness with the concept which is fundamental.

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The space fabric.

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Our universe appears to us as an enormous, tremendously complicated system with many acts of actions and reactions, functions, and functional derivatives.

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And it is hard to realize that it is all the manifestation of a single basic concept in nothing at all.

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We suspect, corrected, that there must be many layers or levels between the basic concept and what we observe about us.

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It is up these levels that we must work our way to an understanding of the universe rather than downwards.

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Anyone who is at all familiar with modern physics is no doubt appalled at its complexity,

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confused by the many correction and perturbation factors, and amazed at the many weird theories propounded in all sincerity to explain observations in terms of established principles.

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Anomalies are the rule rather than the exception, and the amount of data which just won't set is colossal.

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All in all, it is fairly obvious that this view of the universe is bogging down, and we are in reality conjuring up a mathematical monstrosity and raising it to deity status.

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It is truly the modern golden calf.

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It is much more difficult to conceive of a universe which is basically highly complex but possible of breaking down into smaller, simpler units than to conceive of a universe in which everything is built up of different aspects and combinations of these aspects of a single basic reality.

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Therefore, why not trade again the path which was taught by the Creator when the universe was established, and start with He did, with nothing at all, and place therein the single basic concept of reality and study that which may be derived from it?

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We were unable to establish the point of whether or not there is any interdependence between reality and awareness, and we may never be able to do so, but we must take it that they both do in fact exist.

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Otherwise, the whole exercise becomes meaningless and all is illusion.

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Therefore, insofar as we are concerned, the reality of the universe exists and we are aware of it.

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The first degree of awareness of the basic concept is length.

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This is a vital statement, and although many other combination of words could be used, the meaning is identical.

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Again, the understanding of this parameter is a personal matter, and the mere reiteration of a formula will never convey understanding.

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Hence, another personal visit into nothing at all and the first-hand view of the basic concept is called for.

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The meaning should be by means of the quadrature concept, and if correctly carried out to the exclusion of all else, that which is due to the concept of length.

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This is the first parameter, or as it might fairly be put at this point, the first dimension.

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Now, if the quadrature concept is again applied to the basic concept of reality, taking into account the already established parameter of length, an area will be established, which is the second parameter.

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First area is the true second dimension, rather than another length that right angles to the first, since this would postulate an already defined frame of reference, which could not be in nothing at all.

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A further application of the quadrature concept to the second parameter will establish a volume, which is the third parameter, thus making volume the true third dimension, and for similar reasons another line at right angles to the other two could not qualify.

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Hence, awareness of the basic concept of reality through successive applications of the quadrature concept has established a fabric of true parameters, length, area, and volume, containing one, two, and three conventional dimensions.

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This is the space fabric, and establishes a place for the universe, which is at once simple and possible of understanding.

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There is no need for warps, foreshortening, and all the other attachments appended to space by conventional science to avoid facing the universe as the Creator faced it, from the viewpoint of nothing at all.

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At this point, it may be well to say something about zero and infinity.

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Originally, these were mathematical concepts which gradually became established in our consciousness, even though to most people they never had any real meaning.

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Mathematically, it is possible to evolve quite satisfactory definitions for zero and infinity, and so long as they are confined to mathematics, we can get along with them quite well.

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But when we try to become aware of zero or infinity as a personal experience, we find it most difficult.

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It is only through the quadrature concept that we can become aware of these two extremities at all, but if we move them in quadrature, we find them quite understandable.

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In fact, they become as real as any other numbers.

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We can say that zero is the smallest number in which our awareness has any interest, and that infinity is the largest number in which our awareness has any interest.

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If we have the same degree of interest in zero as we have in infinity, we will find that unity is exactly halfway between.

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This is quite apart from any scale of measurement and is a most important relationship.

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It is because nothing in the universe is absolute except the basic concept of reality itself.

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Even geometrical relationships are tempered by the means by which we become aware of them.

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In establishing the space fabric, we have understood the concepts which result from the application of the quadrature concept to the basic concept of reality.

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While we immediately recognize the results of these operations as the space within which we dwell, we must avoid implying other properties to it, then can be derived directly from the basic premises.

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In other words, we have only space with nothing in it.

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Anything which we may subsequently define within space must be derived by further applications of the quadrature concept if it is to have any meaning.

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A further word may be said about scales of measurement.

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Within the space just described, there are no scales of measurement, and any positioning of awareness must, of necessity, be entirely arbitrary with one position being quite as good as any other.

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Relative positioning must of course remain relative, regardless of how many positions may be established.

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A corollary of this is that space is linear, no matter where we investigate it, and this relationship must be accepted as fundamental.

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The field fabric.

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In establishing the space fabric, the basic concept of reality was operated upon successively by the quadrature concept, giving the concepts a length, area, and volume.

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Further operations with the quadrature concept will mirror more relationships, which, when established, may be recognized as parameters of the universe in which awareness finds itself.

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Some sort of relationships established to constitute the field fabric do not infringe upon our

awareness as directly as does space, except in the composite forms.

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Some sort of language is needed to facilitate understanding.

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To those having a mathematical background, this presents no particular problem, since the relationships are merely those of established vector algebra.

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To those not having such a background, understanding must be attained through the appreciation of the meanings of the actual words used.

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In any case, if the basic principles already set forth have been adequately understood, they should not be too great difficulty.

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A visualization of what is going on, extending upwards from nothing at all, as the quadrature concept is applied successively to reality and its derivatives, is really what is called for.

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The application of the quadrature concept to the third parameter moves a further parameter which we might describe as density or gradient, and is really an expression of how reality is distributed in space.

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Vectorially, it is the scalar view by awareness of the volumetric parameter of reality.

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It is the scalar against which any change in reality must be gazed.

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Before parameter is therefore essentially changed, the true fourth dimension.

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There are many interesting implications which will be studied later in more detail.

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00:24:05,000 --> 00:24:20,000

But again, the quadrature concept is applied, another partially familiar vectorial quantity results, namely divergence, which is essentially the static condition of change or the stable condition in which awareness finds reality.

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00:24:21,000 --> 00:24:27,000

This is the fifth parameter which also presents some interesting implications which will be studied later.

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00:24:27,000 --> 00:24:44,000

The sixth parameter is developed by still another application of the quadrature concept to reality, which gives the vectorial quantity curl or deviation of reality, which is essentially the dynamic aspect of reality as perceived by awareness.

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00:24:45,000 --> 00:24:55,000

At this point it is fairly obvious that our universe is polydimensional in the truest sense of the word, even though the dimensions are not quite what we fancy they ought to be.

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00:24:55,000 --> 00:25:04,000

There are more correct parameters in our aspects of reality established by awareness through the mechanism of the quadrature concept.

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00:25:04,000 --> 00:25:19,000

Again, we cannot say whether or not reality could exist without awareness, but we believe that they are a few separate manifestations of the same thing, and one is incomplete without the other.

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00:25:19,000 --> 00:25:27,000

In any case, so long as we are aware of our universe, it must be through the parameters which are inherent in it.

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00:25:28,000 --> 00:25:34,000

And there are six more of them making twelve parameters in all, after which the system closes on itself.

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00:25:35,000 --> 00:25:43,000

These twelve parameters are the necessary and sufficient conditions for the existence of the universe as we are aware of it.

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00:25:44,000 --> 00:25:55,000

Although there is a smooth relationship following in the development of the various parameters, we find that they fall naturally into four fabrics of three parameters each.

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00:25:56,000 --> 00:26:02,000

Just as each parameter has its unique characteristic, so each fabric has its own unique characteristic.

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00:26:03,000 --> 00:26:08,000

This includes those of the individual parameters and the interrelationships between them.

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00:26:09,000 --> 00:26:22,000

It should be noted that in the development of the three parameters in the field fabric, the quadrature concept was applied in each case to the previously established parameter, and in its broader sense.

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00:26:23,000 --> 00:26:36,000

This should not be confused with the mathematical manipulation of multiplying the previously established parameter by the square root of minus one, as this is an operation which will subsequently be employed,

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00:26:36,000 --> 00:26:41,000

and is similar to parallel processes which go on in the space fabric.

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00:26:42,000 --> 00:26:48,000

While this distinction is fairly obvious in the space fabric, it may not be so obvious in the field fabric.

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00:26:49,000 --> 00:26:58,000

Let us next look at those aspects of the universe which continue to form our awareness and which may possibly be identified with the parameters of the field fabric.

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00:26:59,000 --> 00:27:13,000

Before parameter change reaches our awareness through our concept of time, although we have here mistaken the shadow for the substance and vice versa, a field is a region which has an unique characteristic.

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00:27:14,000 --> 00:27:24,000

The space fabric in displaying the characteristic of change has an unique characteristic, so the first characteristic which appears can qualify as a field.

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00:27:25,000 --> 00:27:33,000

But the field must be somewhere, and the space fabric fills this need, just as an area is necessary for the evolution of the concept of volume.

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00:27:34,000 --> 00:27:46,000

Suppose we call this field of change a kentic field, to give it a name of its own, so that we can study its relationship to those things which impinge on our awareness.

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00:27:47,000 --> 00:28:00,000

Inspection of the concept shows that if a change is great, the kentic field must be great, but we associate change with our concept of time, which is something against which we gave the rate of change.

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00:28:01,000 --> 00:28:10,000

Express mathematically, this rate can be written as $dsdp$, which expresses the manner in which something changes with respect to time.

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00:28:12,000 --> 00:28:21,000

More expressively, this should be written as ts , where t is a kentic field operator and s is the aspect of reality upon which it operates.

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00:28:22,000 --> 00:28:27,000

The convenient, or only partially adequate, description of the kentic field is frequency.

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00:28:28,000 --> 00:28:35,000

Since we recognize frequency as being a certain number of somethings per unit of time, which is dimensionally the reciprocal of time.

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00:28:37,000 --> 00:28:44,000

Before we have always considered time as an immutable flow against which everything involving change could be measured.

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00:28:45,000 --> 00:28:48,000

For as, it is really the converse which is true.

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00:28:49,000 --> 00:28:52,000

Change is the basic concept and time is derivative.

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00:28:53,000 --> 00:29:01,000

Unfortunately, our mathematics are geared to the time concept, and will require considerable reworking to fit them into this more precise concept.

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00:29:02,000 --> 00:29:09,000

But when this is done, there will result a most elegant simplification in all the analyses involving time.

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00:29:10,000 --> 00:29:21,000

In the meantime, the transition in thinking can be made less painful if we nearly regard time as a consequence of the existence of a kentic field and is by no means fixed.

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00:29:22,000 --> 00:29:26,000

It may be interesting at this point to mention something about the velocity of light.

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00:29:27,000 --> 00:29:35,000

This quantity is generally recognized to be something rather basic in our universe, being the rate at which space changes with time.

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00:29:35,000 --> 00:29:44,000

But when viewed in the light of this new field concept is merely the kentic field intensity, or how the kentic field is distributed in space.

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00:29:45,000 --> 00:29:48,000

We have been told that light doesn't travel, it is.

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00:29:49,000 --> 00:29:52,000

Which is an idea not at all foreign to the field concept.

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00:29:53,000 --> 00:29:59,000

Of course, it follows that the velocity of light will be a constant only under conditions of constant kentic field.

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00:30:00,000 --> 00:30:03,000

And if this field changes, so will the velocity of light change.

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00:30:04,000 --> 00:30:17,000

Adam had a superficial look at the kentic field and its derivation, who may now allow our awareness to inspect the next parameter, which is divergence, to see if it is something which can be recognized.

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00:30:18,000 --> 00:30:29,000

Previously, we noted that reality had to extend to infinity from zero in order to establish space, and that unity so far as awareness was concerned, may halfway between.

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00:30:30,000 --> 00:30:42,000

But the application of the quadrature concept to the parameter of change or kentic field, divergence is established, from which we derive a starting point at zero and a finish at infinity.

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00:30:43,000 --> 00:30:50,000

Between these two limits and through unity, there is divergence, which we can recognize as the electric field.

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00:30:51,000 --> 00:30:54,000

But with the exception that there is no point charge at the zero.

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00:30:55,000 --> 00:31:05,000

Our awareness, however, establishes the charge at radius unity, with exactly one half of it being inside and the other half being outside.

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00:31:06,000 --> 00:31:11,000

The real significance of this boundary will be apparent when we study the tenth parameter.

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00:31:12,000 --> 00:31:28,000

When Bible origins was established by awareness, the quadrature concept was applied to the kentic field, so we may expect within the electric field, two quantities, scalar and defectors, all of quantity and its manner of distribution.

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00:31:29,000 --> 00:31:36,000

These attributes we recognize immediately as pertaining to the electric fields with which we have

experience.

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00:31:37,000 --> 00:31:50,000

While the kentic field is purely scalar, the application of the quadrature concept shows that an aspect which is vectorial in establishing the electric field, in that it now has direction as well as quantity.

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00:31:51,000 --> 00:31:58,000

In doing with this parameter, both these aspects should always be included, otherwise the analysis is bound to be incomplete.

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00:31:59,000 --> 00:32:06,000

In other words, near vectorial summation is not sufficient and the scalar values must be integrated also.

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00:32:07,000 --> 00:32:19,000

Also, we must get away from the idea of a point source for electric fields and realize that they are the manifestation of the fifth parameter from zero to infinity and in themselves are the reality.

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00:32:20,000 --> 00:32:33,000

When awareness inspects divergence through the quadrature concept and establishes curl, similar appreciation results and we see in curl many of the characteristics of the magnetic field.

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00:32:34,000 --> 00:32:44,000

But again, both vectorial and scalar quantities are involved and again we have a boundary within which is half the reality and outside of which is the other half.

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00:32:44,000 --> 00:32:53,000

We call that within or without this boundary the magnetic moment, but again we cannot establish a point source.

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00:32:54,000 --> 00:33:01,000

Also, in doing with magnetic fields, we must always include the scalar as well as the vectorial aspects.

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00:33:02,000 --> 00:33:16,000

Just as area has length incorporated in it and volume has area incorporated in it, so has the electric field, the tempic field incorporated in it and the magnetic field has the electric field incorporated in it.

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00:33:17,000 --> 00:33:21,000

Each of these three fields are mutually at right angles to each other.

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00:33:22,000 --> 00:33:28,000

These three fields together are the manifestation of reality in the field fabric as perceived by awareness.

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00:33:29,000 --> 00:33:40,000

The interrelationships between these various fields manifest to our awareness as matter and energy and the great fry of these manifestations is well known to us.

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00:33:43,000 --> 00:33:44,000

The control fabric.

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00:33:45,000 --> 00:33:50,000

The complete understanding of the control fabric is not easy.

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00:33:51,000 --> 00:33:59,000

Peacefully, we call by their very nature, our mathematics cannot be applied to it directly and any analysis must be indirect.

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00:34:00,000 --> 00:34:07,000

However, it is hoped that with some understanding of the fabric, suitable mathematics will be evolved with which to deal with it.

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00:34:08,000 --> 00:34:16,000

In any case, it should be realized that understanding comes with increasing awareness and if the basic concepts are understood, the rest will follow.

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00:34:18,000 --> 00:34:31,000

Awareness, inspecting reality, notices that the tempic field is to some extent everywhere and except for any, I will fairly describe reference point is largely homogeneous.

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00:34:32,000 --> 00:34:39,000

The electric field, however, does have a reference point of its own, but other than this is spread out everywhere.

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00:34:40,000 --> 00:34:47,000

The magnetic field in addition to having both before going characteristics has another one, namely orientation.

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00:34:48,000 --> 00:34:57,000

If the quadrature concept is applied to the magnetic field, it will be found that its orientation can be anything, or in other words, it is random.

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00:34:58,000 --> 00:35:05,000

The probability of finding it in any particular orientation is exactly the same as for any other orientation.

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00:35:06,000 --> 00:35:11,000

And while the field itself has a unique characteristic, its display is strictly random.

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00:35:12,000 --> 00:35:20,000

While this was a rather oversimplified derivation of the seventh parameter, it may be sufficient to guide thinking in the direction of its appreciation.

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00:35:20,000 --> 00:35:26,000

And as has been said previously, this appreciation is purely personal.

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00:35:28,000 --> 00:35:38,000

In all previous applications of the quadrature concept by awareness, the matter of choice did not arise, as how the concept was applied didn't make any difference.

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00:35:39,000 --> 00:35:45,000

However, with the application of the quadrature concept to the magnetic field, this is no longer the case.

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00:35:45,000 --> 00:35:53,000

And a condition of asymmetry has been introduced, which makes it necessary to decide how the concept shall be applied.

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00:35:54,000 --> 00:36:03,000

In fact, the application of the concept is in itself a definition of the eighth parameter, which is either decision or free will.

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00:36:04,000 --> 00:36:14,000

The ninth parameter, however, again establishes symmetry and leads to a concept of sequence or order or specific arrangement.

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00:36:15,000 --> 00:36:29,000

Up for the eighth parameter, awareness was largely in the position of observer and was unable to make any difference in the scheme of things in the understanding of what happened when the quadrature concept was successfully applied to the basic concept.

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00:36:30,000 --> 00:36:36,000

However, with the eighth parameter, awareness became part of the scheme in that a difference could result.

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00:36:37,000 --> 00:36:49,000

It is at first level that free will is exercised, even though we may have many ideas to the contrary, and it is through this characteristic that we are able to control at least a part of this universe.

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00:36:50,000 --> 00:36:58,000

Increased understanding will of course make possible extension of control, to the extent that our awareness actually does understand.

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00:36:59,000 --> 00:37:16,000

There is a price tag on this control through free will, however, in that the next application of the quadrature concept establishes a pattern which persists right around the cycle, and sequences are established which are directly consequential of the application of the eighth parameter.

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00:37:17,000 --> 00:37:31,000

In our relationship with the universe, we see all sorts of applications of the control fabric, from random through free will and intersequence, as well as all sorts of combinations of them.

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00:37:32,000 --> 00:37:41,000

Again, as was the case in the lower fabric, each parameter includes the lower parameters as well as extending the concept to include a new one.

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00:37:42,000 --> 00:37:51,000

Therefore, it follows that all higher parameters and the eighth will be subject to modification by awareness with proper understanding.

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00:37:52,000 --> 00:38:02,000

The modification will be the consequence of the operation on the half-symmetry of the field fabric, and its consequences will be felt right up to the 12th parameter.

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00:38:03,000 --> 00:38:07,000

The Precipitation Fabric

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00:38:08,000 --> 00:38:25,000

Once awareness has understood, from the application of the quadrature concept, the establishment of the first nine parameters, the further application of this concept yields three more parameters which bring matter and energy as we know them into being.

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00:38:26,000 --> 00:38:36,000

Again, as in the third or control fabric, we have no tools except our own awareness and understanding to follow through the involvement of this fabric.

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00:38:37,000 --> 00:38:50,000

The two higher fabrics require much more sophisticated manipulations than our mathematics are capable of, to show the relationships existing between the lower parameters and fabrics and the higher ones.

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00:38:50,000 --> 00:39:00,000

And at our stage of involvement, we can reach them only through personal mental activity, aided by hints and directions from others who have already passed this way.

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00:39:02,000 --> 00:39:09,000

The application of the quadrature concept to the parameter of sequence yields the tenth parameter form.

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00:39:09,000 --> 00:39:21,000

It was mentioned previously that there is an unique value between zero and infinity called unity, where exactly half the reality is inside and half is outside.

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00:39:22,000 --> 00:39:34,000

While it is true for formal mathematics and may be so established, it is also universally true outside of this discipline, that no amount of manipulation can alter the value of unity.

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00:39:35,000 --> 00:39:41,000

And it always remains the fulcrum about which all other values regardless of scale pivot.

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00:39:42,000 --> 00:39:51,000

The tenth parameter attaches to this value a spatial significance in that it becomes the apparent boundary of the reality.

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00:39:52,000 --> 00:40:03,000

It is at once apparent that there is no prescription of any absolute quantity of reality or any scale of dimension at all in this derivation.

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00:40:04,000 --> 00:40:15,000

Therefore, it follows that any and all reality will manifest form such that its apparent boundary will place half of the reality inside and half outside.

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00:40:16,000 --> 00:40:21,000

We do not know and may never know the total amount of reality in the universe.

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00:40:22,000 --> 00:40:28,000

But the form of the universe will be such that half the reality is inside and half outside.

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00:40:29,000 --> 00:40:39,000

At the other extreme, the smallest bit of reality that we can discern will also have this characteristic of one half being inside and the other half outside.

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00:40:40,000 --> 00:40:48,000

The next application of the quadrature concept yields the parameter of multiplicity where more than one form is established.

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00:40:49,000 --> 00:41:04,000

Remembering that each parameter contains within itself all lower parameters, any and all validations will reflect in the higher parameters and the eleventh parameter will allow individualization in form as a consequence.

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00:41:05,000 --> 00:41:13,000

This may not be at once obvious, but it is the mechanism by which the various bits and pieces of matter and energy come into being.

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00:41:14,000 --> 00:41:18,000

Actually, a coagulation of substance out of the basic reality.

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00:41:20,000 --> 00:41:29,000

When the quadrature concept is again applied, it results the parameter of aggregation or assembly of bits into a purposeful structure.

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00:41:30,000 --> 00:41:36,000

In this region reside a recognizable universe, animate and inanimate.

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00:41:37,000 --> 00:41:42,000

It is the degree of exercise of free will that distinguishes between these two realms.

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00:41:43,000 --> 00:41:54,000

Further application of the quadrature concept merely offsets the universe from itself, which is the same as another linear dimension, or first parameter in the system closes on itself.

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00:41:55,000 --> 00:42:02,000

Therefore, within the universe as we are aware of it, there are these twelve only parameters.

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00:42:03,000 --> 00:42:17,000

They are the necessary and sufficient conditions for our universe as we know it, and all of which we are aware can be defined in terms of these parameters, and it is the duty and responsibility of science to do so.

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00:42:18,000 --> 00:42:31,000

Having established twelve parameters through our awareness, observing the basic reality through the quadrature concept, the question naturally arises regarding the place in the universe of awareness.

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00:42:32,000 --> 00:42:42,000

Since none of the parameters in any way establishes awareness, yet awareness observes all twelve, it must occupy some unique position relative there too.

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00:42:43,000 --> 00:42:50,000

This is true, but its understanding is not aided by the reality of the universe, and again it becomes a personal matter.

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00:42:52,000 --> 00:43:00,000

The following analogy may assist in visualizing to some extent the relative structure of the universal parameters and awareness.

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00:43:01,000 --> 00:43:06,000

Consider a sphere which is completely surrounded by twelve other spheres of the same size.

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00:43:07,000 --> 00:43:12,000

All the spheres are in contact, and all the outer spheres are in contact with the inner.

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00:43:13,000 --> 00:43:19,000

Only three spheres and the inner sphere can have mutual contact under any one circumstance.

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00:43:20,000 --> 00:43:29,000

The radii of these three spheres may be mutually at right angles, and the radius of the inner sphere may be in line with any one of these.

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00:43:30,000 --> 00:43:37,000

Depending on the starting point and progression, all spheres may be inspected sequentially without any preference.

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00:43:38,000 --> 00:43:43,000

The quadrature relationship is possible between any three spheres, including the central one.

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00:43:44,000 --> 00:43:51,000

All these relationships are valid with respect to the relationships existing among the twelve parameters and awareness.

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00:43:52,000 --> 00:43:55,000

The basic particle.

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00:43:56,000 --> 00:44:14,000

Establishing the twelve parameters of the universe in their four fabrics of three parameters each makes it possible to study, from the point of view of the creator, the evolution of the basic building blocks out of which our universe is constructed.

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00:44:15,000 --> 00:44:24,000

Considering the evolution of one particle only, we need to know higher than the first seven parameters, actually holding the seventh constant.

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00:44:25,000 --> 00:44:30,000

The higher parameters enter the scene only when we want to do something with the particles are established.

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00:44:32,000 --> 00:44:41,000

The first three parameters set up a framework in space within which the particle will appear, and the next three will provide the whereabouts with which to make it.

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00:44:42,000 --> 00:44:49,000

We can work with length, area, and volume, temp, electric, and magnetic fields, and all needed relationships between them.

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00:44:50,000 --> 00:44:56,000

Our result will, of course, not be a true particle because the higher parameters will not have been applied.

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00:44:57,000 --> 00:45:02,000

For example, it will not display forms, but will be diffuse from zero to infinity.

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00:45:03,000 --> 00:45:17,000

In the establishment of the space fabric, the repeated application of the quadrature concept swept up the available dimensions to three, but it also made possible all sorts of quadrature relationships within this framework.

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00:45:18,000 --> 00:45:26,000

Similarly, in the establishment of the field fabric, these field relationships were established with quadrature relationships between them.

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00:45:27,000 --> 00:45:37,000

Furthermore, there exists complete quadrature freedom between the field and the space fabric, so that in effect we work in a six-dimensional continuum.

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00:45:38,000 --> 00:45:51,000

It is easy to appreciate the large number of possibilities among the many permutations and combinations of spatial dimensions and fields, but the real problem is to sort out the actuality from the possibility.

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00:45:52,000 --> 00:46:01,000

This can only be done by continual cross-reference to the observation of reality, that is, by asking other nature the right questions.

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00:46:04,000 --> 00:46:14,000

However, of one thing we can be reasonably certain, there probably will not be any unused parameters, and the final result of the studies will involve all six.

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00:46:15,000 --> 00:46:25,000

Since we have no senses by which we can become directly aware of the various fields, we will have to depend on the second-hand data made available to our instruments.

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00:46:26,000 --> 00:46:33,000

And here we must be extremely careful to distinguish between the phenomenon itself and the effects of the phenomenon on the instruments.

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00:46:34,000 --> 00:46:43,000

Also, we must be particularly careful in posing our questions to nature that they ask exactly what we want to find out and they're not ambiguous.

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00:46:45,000 --> 00:46:59,000

In developing the twelve parameters, the quadrature concept was applied between awareness and the next lower parameter, but it may also be applied between any aspect of any parameters or any derivatives of them.

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00:47:00,000 --> 00:47:08,000

In doing this, however, it is most necessary to realize just what is being done and to understand the relationships which are involved.

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00:47:09,000 --> 00:47:19,000

Furthermore, we must never forget that we are dealing with reality, and even though certain aspects may become zero, the reality never vanishes.

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00:47:20,000 --> 00:47:26,000

Conversely, any aspect which extends to infinity is still reality.

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00:47:27,000 --> 00:47:43,000

Since it was established that reality does extend in all cases from zero to infinity, it follows that if there is to be particularization as made possible by the eleventh parameter, there must be overlap among certain aspects.

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00:47:44,000 --> 00:47:55,000

This simply means that in the field fabric, it is possible to have fields that exist independently among themselves and independently of any background which may also exist.

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00:47:56,000 --> 00:48:11,000

In fact, we do not know directly at present how much unprecipitated reality there is in the universe, which will of course appear as a uniform background to the precipitated reality with which we exist.

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00:48:12,000 --> 00:48:19,000

Whether or not fields stick together and add up to a single field depends entirely on the antecedents of the field.

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00:48:20,000 --> 00:48:31,000

If the fields are of unit particles, they will become coherent only when there is close enough association of the fields for more than half the reality to be held in common.

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00:48:32,000 --> 00:48:35,000

When the little bits will combine to form a big bit.

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00:48:36,000 --> 00:48:47,000

If a field is produced by the simultaneous behavior of lots of particles or other fields, then it will be coherent, so long as more than half of its reality will exist in common.

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00:48:48,000 --> 00:49:02,000

These are basic principles and form the sub-digniter of a series of interesting and enlightening experiments, and when understood, provides an elegant interpretation of much data being pondered by students of these matters.

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00:49:03,000 --> 00:49:18,000

The transition between coherent and incoherent fields results from conditions which bring more or less than half the reality in common, and the stability is purely a function of how close to half the system actually is.

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00:49:20,000 --> 00:49:30,000

In manipulating fields and applying the quadrature concept between them, we must understand that what we are really doing is allowing one field to operate on another.

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00:49:31,000 --> 00:49:41,000

The operation of A on B is not necessarily the same as the operation of B on A, although there can be relationships between these two operations.

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00:49:43,000 --> 00:49:52,000

Successive operations will go right around the cycle and back to the starting point, provide a certain condition to a met, and these conditions will become apparent later.

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00:49:53,000 --> 00:50:00,000

There is basically no difference between particles and radiative energy except one of structure and configuration.

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00:50:01,000 --> 00:50:07,000

Both contain reality and are made up of fields and space, and are subject to the higher parameters.

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00:50:08,000 --> 00:50:17,000

We can say that radiated energy is extended, and that matter is re-entrant, to describe loosely their configurations and structures.

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00:50:18,000 --> 00:50:26,000

With the foreboding in mind, we can now explore what happens when the various fields are operated upon by each other.

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00:50:27,000 --> 00:50:33,000

When an electric field is operated upon by a temp field, that is, changed, a magnetic field results.

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00:50:34,000 --> 00:50:41,000

When a magnetic field is operated upon by a temp field, that is, changed, an electric field results.

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00:50:42,000 --> 00:50:49,000

A temp field should result when an electric field operates on a magnetic field, but the trick is to

make it do so.

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00:50:50,000 --> 00:50:57,000

Also, we would like to know what happens when a temp field is operated upon by an electric field or a magnetic field.

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00:51:00,000 --> 00:51:07,000

The temp field is largely amorphous and has direction only in relation to its own gradient in space.

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00:51:07,000 --> 00:51:13,000

While both the electric and magnetic fields have vectorial aspects in addition to their scalar aspects.

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00:51:15,000 --> 00:51:21,000

Therefore, we could hardly expect complete symmetry among the operation of these three fields.

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00:51:22,000 --> 00:51:30,000

We can, however, work through an intermediate arrangement whereby we generate the desired field with its interaction already built into it.

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00:51:31,000 --> 00:51:42,000

Further or not, there is a limit to this sort of operation we do not know, but it certainly hasn't been found yet, and it is a valid approach so long as we keep constantly in mind the basic rules.

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As an introductory exercise, consider the operation of a temp field on an electric field by the simple expedient of having the electric field move.

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A magnetic field will be reduced and will have a certain specific orientation.

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The vectorial direction of the magnetic field will be mutually at right angles to the direction of the electric field and its motion.

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Now, since the magnetic field is a curl function, its divergence over the entire field must be zero.

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In order to bring this about, the magnetic field must operate on either or both of the other fields to clone the system somehow, somewhere.

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One such method would be for this operation to increase the temp field on one side and decrease it on the other so that the motion would close into a loop,

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which implies the operation of the magnetic field on the electric field to produce a temp field.

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If the structure of the three fields is understood, the validity of this operation is at once apparent, which establishes another principle,

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namely that when a magnetic field produced by a moving electric field is moved longitudinally, a temp field is produced.

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More thinking about this exercise discloses the fact that if this system merely closes on itself, the divergence which is the electric field is eliminated.

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So the only way in which the system can be self-sustaining is for it to close corrodially, so that there will be components of all three fields in all directions.

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That this is in fact the model of the basic particle of the universe in which we exist is amply borne out by experiment, because it displays a temp field and electric field in a magnetic moment.

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The electric polarity depends on whether the spiral is right-handed or left-handed.

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Inspection of this model discloses the fact that the temp field will drop off at the inverse distance from the center of the toroid.

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The electric field will drop off at the inverse square of this distance, and the magnetic field will drop off at the inverse cube.

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What fields we observe with our instrumentation in the vicinity of such a particle will be the summation of the particle fields, the fields of all other particles, and the unresolved background fields of the fabric itself.

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Possibly a clear understanding of the structure of the basic particle may be had by considering the composition, orientation, and interaction of the entire field structure, considered together as a

unit.

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Looking at the composite field structure shows us three fields at right angles to each other.

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There is a temp field with its gradient in one direction, the electric with its divergence in the direction at right angles to it and including it, and the magnetic at right angles to the other two and including both of them.

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For self-sustaining conditions, the operation of each of them, the other, there must be one-for-one relationships between them.

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Therefore, the real movement under stable self-sustaining conditions will be in the factorial one-one-one direction, or exactly midway among the three directions of the component fields.

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The skew progression of the fields results in a double closure of the system, which will have both vocation and precession.

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It is readily apparent that since the temp field only must have a specified gradient, the other two fields have two possible orientations, which will result in two directions of possible rotation and two directions of possible precession.

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The electric polarity of the particle will be the resultant of the coherent fields arising from both rotation and precession, and can have two values of positive and two values of negative.

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Because of the necessary geometrical conditions imposed by the nature of space itself, the precessional field will be smaller than the rotational field, giving particles having two values of positive charge rather close together and two negatives equally close together.

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The significance of these differences in charge will be discussed later in the chapter on gravity, as well as some very interesting circumstances arising out of this skew condition, particularly at close range.

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Rotated energy. The basic particle resulted from the operation of the temp field on the electric field through movement. In other words, there was a permitted gradient of temp field in space. Since, however, we had insisted that the change be such that it occurred at one place, we would have had a slightly different picture.

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The only change possible under these conditions would have been an increase or decrease in the electric field through the operation of the temp field, and it would have had to inject its own quadrature relationship in order to exist.

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Therefore, the temp field must in itself carry the quadrature concept, which simply means that it becomes a sinusoidally varying alternating field in a single space location.

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Now, if the temp field varies at any point in space adjacent to that point, there must be temp field gradients or velocities. Since the electric field has a definite orientation, and consequently the magnetic field resulting from the temp field operation will also have a definite orientation,

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it will in turn produce a further temp field of definite orientation, which will be coherent with the original field, increasing it in one direction and reducing it in the other directions.

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The whole business can therefore become self-sustaining only if it dives off in this particular direction with the velocity of light, or in the direction of establishing a temp field gradient.

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It is readily apparent that we cannot avoid space getting into the picture in some way or another. If we permit things to travel through space, they just go round and round and stay in one place.

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But if we try to make them stay in one place, they dart off with the velocity of light. Furthermore, the difference between matter and radiated energy is very similar to that between left current and alternating current.

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Otherwise, there is very little difference between the two forms of the expression of reality. As coherence is possible among particles, if more than half the reality is in common, so is coherence possible in radiated energy if more than half the reality is in common.

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The extent to which the temp field makes use of the quadrature concept in its operation will reflect in the roguelink of the radiation, which in turn will reflect the quantity of reality involved.

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The maximum values of the electric and magnetic field will be those existing in the region where the radiated energy originated, since there is no concept in this universe for negative reality.

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And the operations must be on the total coherent fields present. This same reasoning applies to the size and maximum fields of the basic particle.

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It follows that where radiated energy originates in fabrics having appreciably different background fields, its wavelength will be different from that of the equivalent radiated energy originating in more familiar fabrics.

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Within the universe which we perceive, we are reasonably satisfied that the maximum value of all the coherent fields involved in our particles and radiated energy have the same value.

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Planck's constant is the numerical expression of this value, and the velocity of light is the expression of the numerical value of the temp field intensity.

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Whether or not other universes can and do exist having other numerical values, and what the relationship has to be between them is quite another matter, subject for entirely separate consideration.