

## **A Plane Economy of Space Surfaces From the Mathematics of Einstein and Euclid**

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### **Abstract**

In Euclidean mathematics intersection of lines form the basis of mathematics, space beyond the plane of drawing materials remains undefined; parallel lines cannot be shown not to intersect. The essence of the rigorous adherence to a requirement for intersections in the original renditions of ancient mathematics is often nebulously understood. In retrospect, it yields in its' wake a vast potential for new questions concerning the universe, openness, active processes. and physical measurement. It is argued that ordinary perceived and defined proximity differs extensively from that existing in nature; effective proximity is redefined to be the measure of the temporal-physical 'distance' consumed in the course/path of emergence: the set of lines that occupy space is but a subset of the total possible made on drawing paper. It is concluded that modern mathematical abstractions made to represent space, inherently generate larger/stretched values of (emerged) volume for actual space(s). A new model is presented that is based on the inverted surface of the Mobius strip. A non-arbitratable, but violatable, natural ethic, based on actual and not measured proximities is suggested to exist.

### **Introduction**

This manuscript is intended to illustrate the existence of a natural ethic as a universal and special case in which the notion of proximity differs from the reflexively perceived physical notion that is both commonly and scientifically employed. In this case actual proximity in nature is proposed to diverge from the physical lines construed to connect points to be a function of relations of the lines of perception as the components of a universal volume that is energetic and active, yielding a conceptual active "line of sight" to a single unique surface composed of all lines of sight, in contrast to a common notion of seeing based on connected points. Notions in this conceptualization are emerged as a function of past, transparent to witness, processes, in synergy with the more apparent, temporally and physically proximal, and possess a logic that is based upon the same mathematical means of operations that are commonly known reflexively.

This scheme, the nature of the natural ethic postulated precludes genetic manipulation as unethical in that it violates naturally inherent inherited proximities, synergies of past and present as, in name, nature itself as genetic and emerging.

## Discussion

I wish to comment on notions of man and nature as they relate to controversy in physical theory of nature, ethical controversy over genetic manipulation experiments. It would seem that the only existing plausible surface, the current substrate of discussion for this controversy would be at the juncture of common experience as it relates to the common good and the self and those areas of science understanding that are accessible by the same reasoning to the common person. This reasoning involves common perception of the world as space/volume and movement-i.e. distances and motion or energy-the familiar and proximal with which experience of the world is organized. The common man in argument with the scientist is required to consider two cases, his own and those of the scientist, in the language of science that are inaccessible to him.. There are ultimately, from this perspective, two cases, the ordinary of the common person and the special case of the scientist. In the following presentation I wish to demonstrate that in reality only one case exists and that science theory and practice surround a special self defined and self subscribing case that is not only accessible only from the perspective of science study but entails a contradiction such that either the world as a singly namable whole unique entity either possess a similar divide or is itself a special case.

Consider the writing of Albert Einstein in *The Theory of Relativity* (Einstein,1). The Theory of Relativity is divided into two cases, The Special Theory of Relativity and The General Theory of Relativity. The General Theory of Relativity is entailed from the case in which energy is postulated to exist in spaces absent of mass or gravity, its' notions are mathematically extrapolated to include notions of closed space in explanation and is held applicable to all cases of open or closed spaces (2). The Special Theory of Relativity deals with the case of open spaces as those able to support the life processes -i.e. is capable to define the life processes. It is these two cases of special and general that I wish to discuss, not only in analogy to the above described cases of the common description verses scientific description but as exactly exemplary of unresolved and civilization life long issues regarding the physical interpretation of nature and its' relation to life and mankind. A new case for nature will be described as a single special case. Inherent to the necessity of the evolution of divisions of specific cases in the theory of relativity for explanation, the creation of a divide in nature, is the implication of a great influence of historical behaviors and events on scientific elucidations. The products of science not only shape our thoughts, but if one assumes a broad perspective and a unity to nature, render the accomplishments of science, in content, as an exclusive affect of history as a path of behaviors and actions related to human conflict with nature in which language born of perception, shaped by history, and not mathematics, mathematical or physical constants are the only existing influence on interpretation. Modernly, the juncture of man and nature, is only barely highlighted ethically with reference to human rights and environmental damage from technology- i.e., what constitutes an individual in the case of embryonic experimentation and the green house effect of

global warming. Put to test in ethical discussions are all the conceivable actions of man as a potential set with wish to judge and create ethics. The potential existence of a special case, a universal ethic (3) that is beyond arbitration bears no witness in discussions that are immersed within conceptualizations that place nature subservient, servant to man.

Science in the construction of its cases has come to focus narrowly, in tunnel view to define from within the narrow view of 'the witnessable as an accounting for the whole by instantiation, to characterize that which can only be partially tested but is shrouded in a paradox of duality of cases as it takes no caution with experimental constructions that do not exceed its established logic for processes. Accounting figures, yet always show deficits that lead us searching, for example, for dark matter, new forces, particles and entanglements to accommodate theory in which obvious paradox endures continually. Theoretical constructions of nature, dependant on the path and processes of history serve as a general case in which the more nebulously understood components are nourished within the darker areas of understanding, perpetually, from the more experimentally affirmed products.. Within the range of ordinary experience, nature, taken as an assertion towards the open, emergence, is given interpretation as an entity that does not necessarily fall into an accord with the best construed directions for and needs for human survival. Unfilled spaces, one is hardly able to describe, much less fill with theory are inflated to life by diffusion of established ideas from within the narrow tunnels that comprise our test and model building areas. The general case is held and perennially maintained. From this unavoidable, (unavoidable. if one contemplates need to impose change) and commonly oriented conception of nature science naturally, without alternative, finds fit to act accordingly in a manor parallel to the construed, commonly held notions of emergence that are born from ordinary witness of nature itself, yet appears to have no awareness of its own potential quality as incomplete, unwhole, emerging itself in a manner in which the facets of the process of its' own emergence are excluded from conceptualizations of emergence in nature. Facts of both men and animals using tools to move natural objects to build shelters in order to survive, employing living entities as sources of food, engaging in wars involving imposed death in order to guard borders and dwelling areas make the prospective application of force to nature seem more natural.

It is at the juncture of man and nature verses the authority of science as an ally of government that the subtle differences in interpretation of nature as either one or two cases is very obscured, relegated authority leaning towards the scientist and avoiding concepts and issues that are ubiquitously laden in shadow, with an assumption, hope, that knowledge will come to be more compete as the consequence of their endeavors. Footing is always on the shaky precipice of the unknown.

## Nature as a Special Case

At the root of misconceptions is the absence of an conceptual test of the notion of proximity, as either a general case involving physical distance, temporal distance or as a special case in which a logic of experience extended to be a universal logic involves both the temporal and physical in a synergism to yield an unsuspected unity that is entailed by and entails all the elements, both natural and man made divisions of the universe into a genetically structured emergence, a single surface as a special case to describe all. For example the locks and keys of genetics, gene sequence and action, the three dimensional objects of the world composed of both energy and matter are presented as the consequence of an inherited proximity as a synergism of those aspects of the world available to witness and those that emerged from past processes; a synergism that is conceptually singular, a universal ingredient for all to account for the world as a special case. In this discussion focused on proximity and the investment of science facilities for the manipulation of nature, non-proximity, though conceivable and the added ingredient to perceptual accounts postulated to birth the commonly construed general case is made not to exist.

In the proposed special case the planets and the subminiature are held together in the same category, the planets and the immense cosmos with the miniature components of organisms, the cells and chromosomes in order to demonstrate a meaning for proximity- because the interiors of cells are within reach it is thought to change the agendas of cellular components and, in essence, to bridge a divide that is contended to be related conceptually more to the mysterious contents of the folds of history, of meaning in language communications and history that are by necessity not apparently organizable, more transparent than apparent, as its' origins are not available to witness. To establish a more certain perspective of the analytical lines and angles of the scientific assessment of nature it is proposed that a universal logic exists as a special case that is immediate and ever present, in which the lengths/and distances that delineate form might be derived and defined from the transmission of energy that can exist as states of matter or energy. Perceptual accounts of nature, of the external, though basically made from constructs of lengths are in actuality more movie like than picture like, bring upon the individual perceiver a frame of the world as a, more contiguous than stationery assembly of temporarily associated still images and sensations. However the actual machismo of moving images integrated into as a state of memory/experience cannot be easily, but invalidly related to the constructions of moving pictures seen in a theater or on television, though resembling, in defining facets and concepts of the proposed universal logic. Mechanically made videos are conceived, or viewed in retrospect with respect to their invention, as ideas of physical and temporal proximity, i.e. a plane ,i.e. a simple movie frame, is given a temporal component along a line represented by the length the movie strip, or track upon which it is recorded and brought to life with the addition of energy –i.e. a motor or computer processor that can arrange the frames into a temporal order.

Ancient Greek geometry might have accounted easily for this invention, less for the means of providing and converting energy to drive its' process. Without putting to test Euclid's Parallel Postulate (Heath, 2) the notion of a picture on a grid made of intersecting lines that define composing points requires little stretching of concepts. However with respect to the nature of the world, the parallel postulate, its' failure to accommodate non intersecting lines, parallel lines defined as those that form a 90 degree angle each on the same side of an intersecting line cannot be shown to fail to intersect as they do not intersect in the line of the paper, the parallel postulate in its' referral off of the plane of the paper to spaces beyond it, space, if it were a unity as the Ancient Greeks suspected still remains a perplexity, an, almost unaware perplexity of all of the curiosities and endeavors of modern society. Euclid might have, in retrospect, been able to account for a photograph, the assembly of photographs temporality to make a video but not the lack of mechanical connections involved in the energy metabolism to make the photograph move-i.e. the movement of electrons in a conductor to cause the turning of a motor, a light to light; within today's vast progresses of science in the assembly of theory and the manipulation of nature there is little reflection on the parallel postulate as a statement about concepts of proximity, the infinite and eternal, as they fit with the intuitive sense of the world as a holism, an undivided, , indivisible unity.

In order to extend the planar geometry of Euclid into a three dimensional space, I will employ the mobius strip (Figure 4). A mobius strip has as a center to its surface, not a point, but a unique line drawn exactly midpoint of its width through its length. It is made so that it has a twist in it as if an open belt closed with a half twist so that its' inside surface is contiguous with its' outside surface. A cut made along the exact center of the mobius strip results in two linked loops, each loop the same length as the starting loop but possessing half the area. As a beginning product the mobius strip has one continuous surface, after its' division the linked loops have a finite surface area that is the same for each loop, each loop half of a whole transit of its' parent strip. Intuitively as a candidate substrate and or catalyst, generator of open nature it has gross qualities amenable to descriptions of nature as infinite and continuous, possessing finite structures, composed of many kinds. A video film strip may be cut and sealed to resemble a mobius strip, create a functional movie, but, possessing necessary intersections and attachments is still within the realm of Euclid's renditions of plane geometry. As a free floating figure, without the physical attachment of a movie projector the mobius strip is quite interesting and distinct from a plane untwisted movie strip that is joined to be round. When cut to form loops the mobius, divided into two parts can still be viewed as a single structure. The loops free floating but confined to one another, are necessarily parallel to one another, having originated from the same line. Thus conceptually, it is a bridge from the geometry of figures drawn on planes, on paper, to open space. Progeny loops from a mobius strip, geometrically parallel to one another, are necessarily not parallel to one another in the 'plane' of perceived open space because of the mechanical hindrance imposed by the twist in the parent loop. If one can envision many mobius strips held parallel in the plane of space, all loops produced from

divisions are necessarily parallel in the original perspective because all of the (parent) lines are parallel to one another. Sets of parallel chained loops can be composed of parent strips of an infinite number of dimensions of length or width, each distinct from one another, confined into malleable pairs, together can be envisioned sufficient to include all of the points in a volume of space, the center lines of parent structures, parallel to one another define a contiguous surface and all other lines are not only distinct from those and not contained in that same flat or unflat surface, but all possible lines other than those from the center line, each given by a unique angle to the midline, are able to form sets composed in dimension of the number of parallel parent strips. All points defined by sets, whether in looped chains or parents comprise a unique set in the second plane of real space but are confined in description to the Euclidean coordinates for parent structures in the parent plane. In this presentation the set of mobius strips has two members, those that can exist in physical space and those that are abstracted to exceed physical constraints imposed by their surfaces to exist in space. There is a limit to the physical dimensions of model physical strips made of paper for instance; they must be sufficiently small in width so that they can be twisted and joined, intuitively a mathematical limit to width would appear to involve the construction of a whole transit as a limit circumference of circle of radius  $R$  such that  $R/2$  specifies a maximum limit to the width of strips so that mechanical interference does not occur; the circle occupies the greatest area for a given closed length,  $R$  is the maximum interval of separation for different faces of the strip. Regardless of this complexity, a conceptual divide evolves in this example in which simple mathematics elucidated for a geometry involving tangibly conceived and non complex intersections finds, at the same time both existence and a definable obstruction to the existence of actual physical models-a boundary exists between the set of, identical mathematically, abstracted and real possibilities. Whether this boundary is consequential to the definition of real spaces and volumes is not so certain or apparent, real designs for space need to elucidate a unity/holism with a condition of uniqueness for all coordinates. The sets of lines for parallel sets of mobius strips, described with and without conditions limited to whole physical possibilities for models, are obviously distinct and one must consider facts of potential redundancy in abstractions. The criteria necessary to describe a special case verses the dualisms inherent to modern general cases might potentially translate to correspond at the surface of this interface where attempts to elucidate a open universe repeatedly and perennially stumble at concepts of emergence with time, necessarily find paradox with respect to the energy of assembly in the life sciences and concepts of beginning and end in the physical sciences.

Intuitively, either the combined set of abstracted to exceed the physical, or otherwise, might be envisioned to accommodate all of the physical coordinates of space, volumes of any dimension and shape. The parent strip with a half twist composed of the center line and a plane that encompasses both inside and outside mathematically encompasses all of the points of a plane, though not necessarily volume that is birthed from the twist; from the perspective of the coordinate system of the parent uncut strip; many in parallel can be envisioned to fill completely

volumes of space. If one, however projects to volumes of open spaces occupied physically and tangibly with non obstructed contiguous surfaces in three dimensions a separate (special) coordinate system emerges. The theoretical strip width limit of  $R/2$  for circumference  $C$  of the center line not only precludes an infinite surface area to strips of finite size but specifies a physical maximum of  $1/4$  turn to the possible  $1/2$  turn of whole strips. and might be used to refer to empirically testable physical parameters. *Thus, the special set of feasibly physically existing parent strips/arranged in parallel and the set of linked chains, by definition all geometrically parallel, generating planes, in the coordinate system of the set of all parent strips are but a subset of it.*; the coordinate system in open space is not only not equal to the coordinate system for the unconstrained example which is able descriptively in sets of number that must be greater than one (because the twist displaces lines made of its' surface) to fill space uniquely, but lesser and yet must also fill completely the volumes of space. It seems plausible to bridge the difference physically and descriptively, accounting for energy to volume transformation as an embodiment by the transformation of parent to progeny loops from the mirror symmetry in original structures that generate them, and to assert to space the property of 'mirror' that is embodied by the symmetry of parent strips in the center line such that all space is endowed with it.

Many strips conceived to be parallel in the same frame as one views the coordinates of the parent strip, made to describe surfaces in that frame can be rendered a twist with respect to one another such that the geometry of the mobius renders space as the set of, each unique sets of parallel lines (i.e. mobius mirrored parent strips and (parallel) looped chains), in which in the set of spatially constrained members, and linked looped structures are parallel only by definition as a consequence of their relation to the center line per frame of reference. A mobius strip that is parallel to all the strips in witness pairs becomes definable. This though renders an, at least, transiently existing parent strip to the (transient) witness pair, suggesting the "chronic" existence of a third (transient) point of reference, and is very reminiscent of the assignation of a constant velocity of light in the special theory of relativity. One might also find suitable analogy to this situation with the thought that the system state of proximals (i.e. witness pairs) reflects a third state that is a synergy of the two. A box of red light and a box of blue light in proximity could be conceived to result in a box labeled "color". Whether color is a suitable point of reference with respect to blue and red does not seem seem difficult to reconcile. Whether 'color' can be defined by the same philosophy of parallels and twisted contiguous surfaces (as in a mobius strip) comes to question about the nature of 'color', can it be described as an energy that occupies a volume? What of two human being conversing, is there a third witness 'conversation/language' concept, i.e. an ever present deity?. One might approach this paradox with the solution that it is an ever present logic that is valid to all frames of reference, to both physical construction and interaction/propagation. How does this though account for a third frame to witness pairs if by definition witness pair implies only two entities. One would have to conclude that the lines in witness pairs are parallel to the lines in a third reference frame, and if

he chooses not to stop at that point to claim forth and more frames, each greater with lesser curvature so that only sections of whole strips are involved as mirroring entities with which to (approximate) alignment two sets of parallels at once- all descending from the vast to the frame of witness pairs-as entities within. What is, could be, the location(s) in space for such perspectives 'without'? This is again reminiscent of the general theory of relativity that assigns the existence of mass-less gravitation-less though closed spaces and un-supporting of life requiring open space., though one might also remind himself of the above example of boxes of colored light in which it is not an entity that is referred but a concept as the third reference. A concept maybe considered a closed phenomenon, the concept of a concept also closed, the concept of a concept of a concept, so that all one can and does encounter in frames beyond beyond the witness pair is an ordered library of descending parallels that arrive at an example of witnesses in pairs that are parallel both to one another and to all frames that exceed them. Still again, though where are these frames? To account for them one must include the same notion of physical coordinates that are lended to witness relations, unless one wishes to make a .separate case of them as they appear to be distinct from entities in the theories of general and special relativity, though resembling the closed mass-less gravitation-less spaces of general relativity. One might wish to claim an inherited set of proximities in order to give concepts location; why cannot a synergism of the energies of blue and red boxes of light have a location as well the location assigned for that synergy and location assigned to for example a synergy of square and round have a location for the synergy of the two concepts. One must claim somehow that the concept and either or both together of the parties in the entity 'witness pair ' cannot form witness to it, to place concepts in a separate category ,possessing energy, , but not mass, again as in the general Theory of Relativity ,though with physical coordinates that are renderable from the plane geometry of Euclid, but with a twist and added demands to comply with a world that is not abstracted but confined to the constraints of physical reality.

It is at this notion of special and general, at the boundary of abstracted plan and tangible reality that I wish to conjecture a shared/common branching point or line to draw a parallel between the quantities of the radiation/propagation of energy and mass as matter in a gravitational field, either filling volumes of space. This parallel is dependant on the described geometry of the mobius strip. Its center line has two potential roles, as delineator of length to an endless surface if it framed with respect the quality of inside verses outside, and as a mirror which has no dimension with respect to it as a concept, but is describable with physical coordinates. The space containing these, entity and concept, filed exclusively with parallel lines generated from the center line of the mobius strip in which nothing can be defined as straight in line, less for the occurrence of coincidences. The longitudinal center line, a mirror, is given a dual function as both a transverse a longitudinal element. A long its length, it can be used to describe a path of propagation of energy, and transversely to describe the material, matter, mass in a gravitational field; in which its length is applied equally as a parameter in both directions to describe a volume that is a geometric product of an area times a distance, the area of a plane times the distance of a

line. On inspection, this description can be extended to account for many features of experienced space. As radiation propagates in a planes and mass in a line, the volume of any process may be described as the product of the two. Matters of the longitudinal propagation of energy aligned conceptually with the length of the center line and matters of the possession of energy by matter aligned transversely across the mirror such that the path of propagation of a beam of light renders in a time dependant fashion distance and mass whose energy is embodied by the concept of linked loops that are rendered from a divide to the center line., In a sliced viewed, a still frame, mass is rendered, tentatively based on a threshold, whose both, dimensions and mass parallel, the length of the path of transit. This pictorial also parallels both description of light with transverse and longitudinal elements as well as controversy over the nature of light as particle or wave. Second, not present in the theory of relativity or other descriptions, is a potential accounting for the concept of mass as strictly physical existing weight as property of witness pairs, a single witness, non-proximity not to exist, but the energy (of concepts) given a location along the line of propogation, a distance in relation to the distance of relations of parallel lines in witness pairs. Bearing no mass it has no potential witness relations with mass.

If one asks about the bending of light in gravitational fields, a fairly ubiquitously accepted phenomenon, it might be that the mass generated transverse to light propagation interacts with masses, or that it can be accounted for in complex manner as facet of vast distances of propagation along lines in which nothing but parallels exist to parent structures and observers in a Euclid like reference system, but which are modulated by both the physical constraints of mass with respect to the long length and travel time along a center line. The curvature of space, not observed, impossible to observe by witnesses, renders an observable curved path if other entities (masses) are observable in the same frame, or both interpretations. Otherwise, referral of the bending of light by mass, as a 'bent concept' might seem appropriate to describe an unusual circumstance in which an unusual event is born witness with the employment of scientific equipment and given interpretation in terms of proximity that is construed in the witness frame of reference from a perspective of common naturally perceived proximity along a straight line, is 'seen' as if all events were tied in a straight line, to bend. In either case, mass that is manifest as weight, force, cannot be attributed to propagating radiation, potentially only as a manifestation of its path, less one contemplate, in this scheme, to assign physical weight to a concept. The conceptual divisions assumed in order to assign light both transverse and longitudinal properties, particle verses wave properties can be accounted for as totally longitudinal in nature, time not only active in all frames but shared parametrically and not divisible among witness pairs or separable between masses(witnesses) and paths of energy (or concepts).

Thus interpretation with respect to witness or perception becomes location/witness dependant as a kaleidoscope that renders different compositions dependant on witness location. One might

add an order to this scheme if he assumes this layout for all of space such that it is imposed as a constant facet to the intersection of energies transmitted through different spaces, internal spatial changes within entities, external changes, modulations intersecting with remodulations to produce coherent lines of change, motion (in vision for example) that are all compatible (with the same described coherent form of entities/ space), as the basis of all relations/means of relation and inter relation of the kinds, parallel does not mean straight as in the geometry of Euclid, but in this scheme parallel in the Euclidean sense in any given witness pair set unique to each witness rendering the frames of each witness parallel; parallel is denoted only with respect to perspective defining center lines of defining mobius strips; things in nature can be made straight only with respect to the geometry of Euclid and with assumption/postulate that parallel lines do not intersect.

When the mobius strip is flattened and arranged to form a circle it is clear that  $R/2 + R/2 = R$  encompasses the maximum possible width so, that as a result of the twist, greater widths would not overlap/intersect adjacent positions physically, physical clearance from other parts of the strip potentially existing below this value and not above it. If the center lines are confined to a plane in any reference frame, strips are constricted so that fractional divisions along the center length are made to correspond in exact ratio to fractional divisions of the complete half turn embodied to the whole strip. Thus widths of 0 to  $R/2$ , correspond to circumferences of 0 to  $C$  ( $C=2\pi R$ ), for any particular strip and a correspondence of  $1/2$  of the whole  $1/2$ , or  $1/4$  turns. To accommodate 360 degrees in the parent coordinate system a minimum of 4 strips of distinct orientation is needed (  $4 \times 90$  degrees). A model comprised of all possible abstractions, though has a maximum possible of  $1/2$  turn, at a width of  $R$  and requires at least 2 strips rather than 4 in order to encompass 360 degrees. The difference in the number of strips need to encompass a whole turn might be translated to mean that a different number of parameters are required to describe space depending on whether one wishes to render its core structure abstractly or confined to the requirements of physical space. Intuitively one would lean towards the simplest description with the least number of constituents. The corresponding models might be reduced in size if the requirement for a 360 degree coordinate system is halved with the introduction of a required plane of symmetry defined by the center line. At this crossroads, in analogy, today's science picks the less bulkier, but abstracted model that escapes the demands of physical reality at its core. For example, the value  $c$  for the speed of light is held as a standard for the unit of distance- in the same breath, with the same dualistic ideology of arrangements of the parallel and series to render concepts that descend from the same starting point, from the senses of physical distance, proximity arriving at an identity between abstracted and real values.

However one other possibility exists that makes this conception, obsolete, lost to obsolescence in the wake of a synergy that yields a holism of divides and symmetries that do not require mathematical degenerations –i.e. 4’s to 2’s to 1 in which space is described as a process catalyzed by the surface of the mobius strip translated from its’ parent plane into the constrained volumes of space, neither its’ center line, plane, chained loops physically existing, such that all that is abstracted is a geometrical form that can be tested against data and observation. In which the existence of dualisms, monisms, constants become second in importance to the assumption of a monism as a geometrical form that that can be suitably fit to elucidate volume and energy I do not think this has been accomplished in light of the nature of the both open and closed spatial facets of the general and special theories of relativity. In the mobuis model presented all parameters can be given physical interpretation. The  $\frac{1}{2}$  in Newtons laws of motion ( $\frac{1}{2} mV^2$ ) translates to align with the requirement for spatial constraint of figures ( $R/2$ ),  $c$  (the constant for light velocity) translates to a physical value for the velocity of propagation along the mobius center line. In the frame of a moving mass emitting radiation in which mass and time can be given as state variables, one has :

$$E/m = R^2/2 + C^2$$

$$\text{Volume} = R/2 C^2$$

In this case the existence of physical structure depends on the intersection of the tangible (plural mass with gravity-i.e weight) with the intangible (geometrically constrained space) energy as the constituents of motion. Though, the fabric of space conceived as a cloth weave might be accommodated equally well by either situation, ,though one, the abstracted one ‘fits’ well within the proximities defined by the physical dimensions of the plane of the drawing paper, and naturally construed proximity, the restricted space model abstracted from it, has connections of both parallel and non parallel lines able to uniquely fill space but not the plane of the drawing paper. The former general model in which all possible parameters for the mobius strip are included, fills the demand for a physical coordinate system to account for volumes, though in the tangible world of processes, this coordinate system reduces in description to the mechanics of the motion picture. It is at this paradox, to explain a contiguity of past to present that an analogy is easily found to the motion picture studio, but not so easily for actual processes of emergence. This paradox seems to resolve if credential is given to the existence of illogic, the converse of a logic for processes. The logically construed and created from assembled natural law, the movie theater as well as the logic of the physical processes that describe it, maintained as a testimony to the logical construction of nature must be placed into the class of illogic that also composes the constructions of dreams. Dream content may contain even coherent descriptions of the Theory of Relativity, Newtons’ Laws of Motion or an exactly logical, comprehensible, and valid relation of human history or even nonsense. It may contain a valid account of making movies but is no more bound to the actualities realized of actual contiguity of time than either the Theory of Relativity or Newtons’ laws of Motion. Physical

theory of the world has progressed only from the conception of slices of nature to construe more slices of nature. In the sense of a common logic of processes, the existence of life, viewed as a periodic intersection with logic, all is encompassed into a category of logic plus illogic = illogic, that is put to explanation slice wise as neither a whole or part, ultimately is self defining and escapes the requirement for empirical investigation as the only source of grounding for meaning, lingual meaning, much of which is not within the means of investigation. The vain mathematical exploration of the physicist to render an 'illogical' mathematics such as the operation operation in the Schroedinger wave equation, or the reorganizations achieved by the Lorenz transformation may be doomed by the absence of coherent total perspective, the illogical can be captured only with the 'logical', common senses attributed to language which is by necessity grounded in the empirical. In this case a real meaning must be discerned for proximity; this I believe is only realized with the realization that the property hunter-gatherer can be applied only towards the economic and proximal tangibles of agrarian life that involve only land, food and the perception of volume as a source of energy related to physical size. The furthest conceptually that this may be extended is towards the bacterial flora in animals and soil but not to their internal constituents as a means of controlling energy flow, energy is but a concept, possessing no mass in this scheme, and is not matter for consumption. The case in the abstraction model given that renders one two or four distinct possible uniquenesses seem to be, but are not the only alternative. Generally, processes that possess description involving geometrical progression or regression ubiquitously elude to a reverse path that is construed from a present frame-i.e.-radio active decay. It makes sense that the choice is not between cases of 2 or four varieties, whether to abstract or confine, maintain symmetry, but that a whole 'slice' fitting empirical interpretation involves something other than a choice of cases, but in present models indicates a single unique case with a unique focus resembling the mathematical regression, i.e. a special situation of space that currently exists and is maintained in which simultaneity is maintained both longitudinally(i.e.-beyond the plane of the paper) and transversely (within the plane of the paper)) as a general feature. This might be conjectured to be a common (chronic) temporal influence of an unknown phenomenon involving space, mass and energy (Kirsh, 5 ). It is not impossible to apply the presented model to study systems that are composed of both fast and slow propagations, e.g. agriculture problems involving the movements of populations, and solar radiation, to create histograms and to compare them physically to those generated mathematically, (e.g. Figure 4) in order to locate disturbances.

It is at this point of argumentation that I believe an addition might be made to the concept of emergence, emerging concept of nature that is arrived from a sense of an 'emerging nature' in contrast to a nature containing emerging objects. Mankind, tending to model nature, not in likeness to himself, but to his problems that are seated in conceptions of nature with respect to

behavior, to feed and care for, in an organized way, a growing population that is hunting and gathering. Hunting and gathering the internal constituents of cells, chromosomes, etc. is not the same as hunting and gathering food and resources.

The logic of nature's construction, man's own logic he reserves for himself with which to render interpretation, is but, as in my rendition of movie making or dreams, a necessarily illogical slice of a grand illogic erected from non energy containing, non-emerging volumes on the flat surface of paper, when unaware, diffused to fill spaces that are not defined and have come to evolve in description into a general encompassing case for which conflicting data from empirical test is beyond the real means and philosophical assumptions that are assumed by science. A bullying of nature around has occurred to suit circumstances.

I wish to build a special case ascribable to the world from the above rendition of logic and illogic, which obviously both exist in nature if man construes himself as part of nature. In this manner the only logic ascribable is that of an absolute renderable contiguity of the identity of the kinds with time; the present as an emergence product of the past, which has no definition with which to build a grounding. This fact must hold true for all aspects of the world. It must be though, a special product of emergence, a special case, as man with his own hands can create situations of logically comprehensible emergences; but which are only slices. The world here, to be accounted for logically in rendition, is examined with respect to the concept of proximity, the past as a transparent component, the construed present as an apparent, meaning witnessable and testable, component. It would seem, does seem, that in constructions, in existing endeavors, that an escaped fact common to the folds of the past as they relate to the present both baffles and threatens that our science is unsound. As a result a compulsive and manic thirst involving exploration and data collection seems to be underway. Once considered scientifically unattainable, materially unfeasible, science fiction, computer systems can be found commonly in house holds. Science appears to have progressed to a state that endorses strongly its tenets, emerges stage to stage sometimes to draw attention for explanation and study to encompass man's own assembled creation, as in a quick, yet enduring marriage with a projected lasting in which self discovery is perennially at the door step, but as described above for the relation of man and machine, taken as a logical facet of his relationship with the environment, it is really no more than an addition to the set of illogical compositions of the world that comprise the unexpected as a certain partner to life processes. To include the facets of physical invention within a set ascribable to an understanding might be analogous to the process of boring holes with one's own self created drill and to boast that he knows the dimensions of the hole bored.

The process of creating one's own contiguities with an assumption that involve the conception of a mirror for his study of the contiguities of the world to which we are born, by definition, "born into", pre-existing seems at the least unwise, as the past is inaccessible and basically unknown. . At the root of these misconceptions seems to be a false construction that embodies the notion of 'proximity' as physical closeness, and although the theory of relativity approaches

this issue, temporal proximity is included into slices divided into concepts of transverse and longitudinal that are a single issue of the longitudinal. The world is framed in this unreal manner past to present as logically assembled. A tangible conceptual scheme can be made with assumptions in the form of a thread, emergence to emergence, as inherited proximity involving all entities and decreasing complexity to the whole in order to account for an energetics of evolution, birth of life, instead of from perceptions of a rendered statistically ordered, less diverse, inert element, to lend to these (inert elements) a greater complexity and diversity than is assumed simply from their arrangements, and witnessable distribution rather than complexity of structure; to consider arrangements and complexities of structure in a temporal order as one contemplates emergences; to consider the grand expanses of the cosmos down to the micro world of atoms, molecules, the biochemical composition of living entities and to construe that the human being, even his appearing advanced cognitive processes, new in evolution, are arrived at from a state of higher complexity and diversity. In this view form might be construed to take president in a different manner than what is ordinarily construed. If one considers the examples discussed of the mobius strip it might be possible to construe a universal holism in the form of a logic centered on it as a mechanism to find explanation, employing it to structure all states, past and present to an emerging open system of matter- energy, and empirical fact.

Figure 1 shows a square in which three sides are consttued to construct the present/transverse element; the forth side is derived from longitudinal/temporal, propagations from that preceding as energy is born witness to the other three sides by means of inherited proximity. The sides of the square, which may as well be represented by a triangle or other figure, but in actuality is an emerging circle (or egg shape) defined by contributions from both the transverse (witnessible) and the longitudinal (past, unwitnessible). as a geometry of lengths that are conjectured to function at the root of all natural fittings. Form is reduced to a matter of lengths rather than velocity and mass such that the fitting of parts, longitudinal and transverse, is accommodated more as matter of the assembly of a (3-dimensional) picture puzzle than as rules governing the energy of chemical and physical processes. The geometrical structure of the mobius strip as catalyst is made to account for the inherent energy of matter as the consequence of a torque energy and a mirror symmetry along the dividing line of parent mobius strips with a  $\frac{1}{2}$  twist. It is proposed to be an inherent and indivisible aspect of the properties of matter, that is witnessed conceptually as the generation of untwisted looped pairs from, parallel to length longitudinal cuts of parent strips. The uracil molecule found in RNA of the cytoplasm of cells and not in the DNA of the nucleus or other organelles, seeming to act as a the delineator of biological identity has a mirror symmetry that is unrenderable in test tube experiment as it has been found not to be synthesizable from it chemically synthesized mirror halves. It's biological function and specificity to RNA seem to be a factor of the contortion ability of its planar configuration to fit in o the structure of DNA verses RNA. Space is conjectured to be shaped and embodied in all aspects with respect to the contour of the mobias strip, such that it is by no means straight geometrically with respect to proximity, either of matter or of energy-the energy attributed to

concepts versus the witnessable.. DNA can be construed in this scheme as a piece of physical path , physical and energetically active memory defined in relation to its previously existing state of energy possessing parametrically a unique path and velocity (Figure 2).  $\Delta C$  is proposed to be the topic of constructions and is translated in magnitude to fit the square puzzle piece as a manifestation of proximal spaces to form a synergy product of volume (with the other three sides of the square in Figure 3). A unique description, one case results in which linear motion is represented as the case of mechanical constraint (i.e. limit of strip width= $R/2$ ) and the propagation of the energy of radiation energy is represented from the case of bidirectional propagation (area = (distance of propagation) <sup>2</sup>) . All is encompassed beyond the plane of the paper (as an applied parallel property of contours, mechanical constraint, mirroring, and halving of strips to change their conformations) in which a geometrical form only is maintained in all frames of reference.

. The manifestation of proximity is intuitively suggested to be a function of the inverse of parametric values of distances that translate to the values of energy contained to volumes, approximated to  $\Delta c$  such that it is a necessary property of the universe that a congruency exist with respect to appropriate acceptable sizes of masses and their formation energy with respect to interpretation in which energy is translated to distance/length... Inverse plots of the egg (Figure 4) from a construction of space involving light emitted in plane transverse to the direction of propagation of a moving mass, from the mass as a traveling point on a line fit both the scale and shape of starting plots though independent parameters of angle align very differently in the rendition of form. Inverse values of  $c$  ( $1/3 \times 10^8$ ) m/s, ,about .3 meters per year ) are within explanatory range of gestation time and size of the gametes of mammals. The universe births egg shapes structures, either mass or volume in this scheme in which only increments of change and ratios are considered.

This conceptualization of emergence is very similar to the physics of crystal growth in a medium which supplies the energy and resources for growth from a seed, e.g.an ordered arrangement of volumes in an energy supplying medium. . Recent research reports (Sowerby et al., 6) on mechanisms of the origin of life suggest that the genetic code might emerge from layers of nucleosides generated under artificially created conditions that are postulated to have existed in the past. This evaluation, though lesser in scope than the presented model does not preclude it. Recent assessments (Danchin et al., 7) relate the spatial constraints necessary to account for the physical structure of the cell wall from the arrangement and composition of the gene sequences responsible to encode for its' constituents This creative holistic approach in analysis concurs with the presented representations of proximity and the existence of physical/spatial constraints that are arrived from a translation of linear geometry in which constraints exist as a special case (i.e. pre-existing in DNA) and are translated to be characteristic of the physical content of space(s). In a broader view DNA is postulated to obey the same physics with respect to emergence, structure and function. The interpretation from observation of a genetic language

is suggested to arise by induction (Kirsh,4) that excludes self/internal and external relation and is given classification, as presented, as a general case.

The geometry of Euclid can be envisioned to graduate conceptually from the set of the illogical sets of slices of the world to a set of logical wholes, with a simple twist that inverts inside with outside. made to Euclids' plane geometry that yields physical intersections to conceived parallel lines . Most important to the pursuits of civilization, science can possess a 'logical' concept for proximity that bears it's truth more in philosophically found aspects of the world rather than from strictly within views erected from the wishes, wants and frustrations of civilization as hunter-gathers.

Important to this is the concept of a natural ethic that encompasses a whole rather than slices of nature lingually oriented as a malleable form rather than mathematically oriented as a rigid structure, embodied mathematical logic to the innately illogical, as it relates to topics of the economy of space is a growing population with limited resources. On inspection of plane geometry and the spatial arrangement presented, the accepted (general case ) description entails the utilization of space at a much greater rate than the arrangement of mobias strips in which the class number of sets in the latter is reduced by a maximum of  $\frac{1}{2}$ , and is (the general case) reflected in the false assumption of proximity to objects that in reality exceed the classification as tenable objects of hunting/gathering behavior from which the natural world has been organized scientifically. Space is not used economically, but spend thriftily from a reserve perceptually perceived to be infinite to unnaturally cause a lessening that is hardly perceived distinctly from the effects of overpopulation.

## Conclusion

Scientific method can be limited by either experimental serendipity, philosophical short comings or both. It is suggested in the enclosed manuscript that nature is misconstrued as a result of false ideations of proximity. Representations of the proximities of entities are suggested not to be apparent from the perspective of sensory based human perception, but more realistically organized not as the world is perceived to be structured but as routes of emergences actually occurred.

The theory of relativity is proposed, in part, to be the product of an overlooked, unavailable to the senses, emergence of a force to the environment of the earth over an extended longitudinal time period with respect to humanly constructed, transverse slices over intervals appropriate to the human life time.

Instead of strict mathematical translation of perception of nature into natural law. a universal geometry existing beyond linear constructions made on drawing paper, based on the geometry of the mobuis strip and a visit to the Plane Geometry of Euclid and his Parallel Postulate is proposed. It is decided that

straight lines on the plane of paper exist in a real space in which parallels can intersect and nothing might be straight or determinable to exist purely that way. Space is postulated to be egg shaped by virtue of the available coincidences of change needed to produce coherent structure involving the linear motion of masses and the planar propagation of radiation or energy. An ever-present logic involving simple mathematical operations and ratios is proposed to pervade all-i.e. internal physiological construction and function as well as sensory discrimination and energy states responsible for the existence of concepts and cognition, all are postulated to be mirrored from a primordial form existing in nature that is differentiated from it by means of the possession of different routes of emergence, inherited proximity. Major implications of this scheme are a natural ethic and the unfeasibility of other means for the arrangement of space e.g.-multiple universes, the closed spaces entailed by general relativity, etc. The universe as the topic of human study is restricted to exclusive definition, a mutually shared nature with the human mind as the instrument of test by means of mutual witness; as tribute to their sameness with respect to their means of existence. It is the contrast of sameness and differential path of inheritance towards apparent proximities that presents the paradox of inertia to account for motion, constitution and property differentiation of different spaces/entities with respect to frame of reference, simultaneity, memory and consciousness in living organisms. Quantum theories of brain function and consciousness are suggested to be, in one frame, a milking of the stone in search of mathematical enumerations of proximity relations that are ubiquitously derived, in part, from unwitnessable past events; and in another frame a search for explanation of a beginning in lieu of granting an external (to ?) funding source for the orders and diversities of nature that are accomplished by the inheritance of proximity, and the absence of non proximity such there are no feasible loose-ended abstracted exceptions to common logic. It is proposed to be this frustration, at the doors of unresolved paradox and failed experimental serendipity to unearth appropriate physical parameters to oppose escaped theoretical abstractions generating rationalized parallels of environmental, agrarian in origin, tools for survival with equipment that penetrates the interiors of observed structures, that universals of spaces and volumes have become the victim of accessibility, frustration from the mallets of physical scientific-social machinery.

## Literature Cited

- 1) Einstein, Albert *Physics and Reality* Journal of the Franklin Institute 221:3 359-382 March 1986
- 2) Heath, Thomas, L. *The Thirteen Books of Euclid's Elements*, Cambridge University Press 1908
- 3) Kirsh, Marvin, E. *Induction, Space, and Positive Ethics* Ludus Vitalis, vol. XVI, num. 30, 2008, pp. 225-228.
- 4) Kirsh, Marvin E., *Einstein and Mythology : The Lengthier the Relations in a Myth the Greater Its' Mass.* (in review : [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1422742](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1422742))

- 5) Sowerby, S.J., Heckl, W.M., *The Role of Self-Assembled Monolayers of the Purine and Pyrimidine Bases in the Emergence of Life*, Origins of Life and Evolution of the Biosphere, Volume 28, Number 3, June 1998 , pp. 283-310(28)
- 6) Danchin A., Guerdoux-Jamet P., Moszer I. , and Nitschké P. Mapping the bacterial cell architecture into the chromosome Philos Trans R Soc Lond B Biol Sci > v.355(1394); Feb 29, 2000.

Figure 1 Representation of Transverse and Longitudinal Components that Comprise Volumes

Grey = transparent, past derived unwitnessible unmeasurable components

Green=apparent, witnessible and measurable components

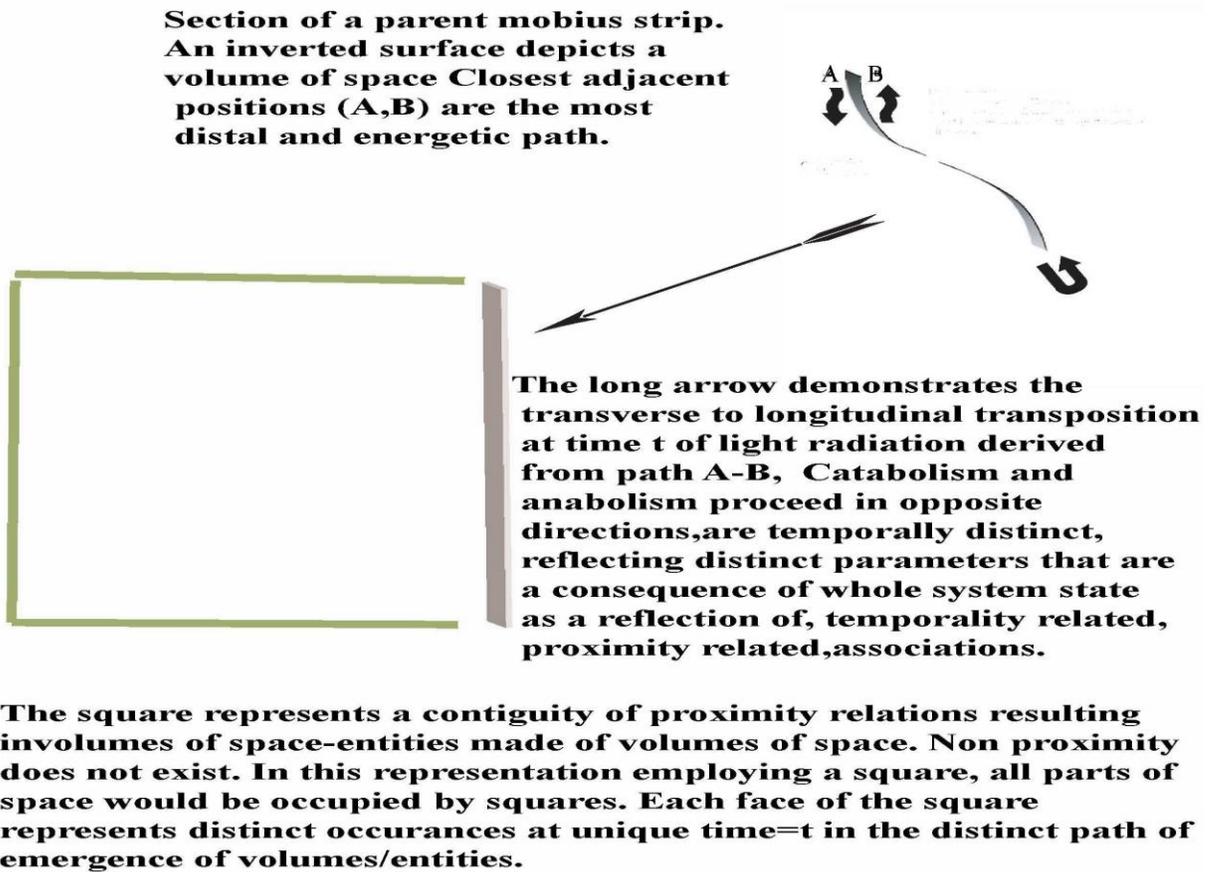


Figure 2 The Form of DNA possessing the quality of memory is derived from the general form of space as an inverted surface. Distances are along the length of the inversion; volumes are areas of surface multiplied times distance. A model composed of inherited proximities are proposed as a spatial necessity for the feasibility of living entities.

**INVERSION PATH OF SPACE**

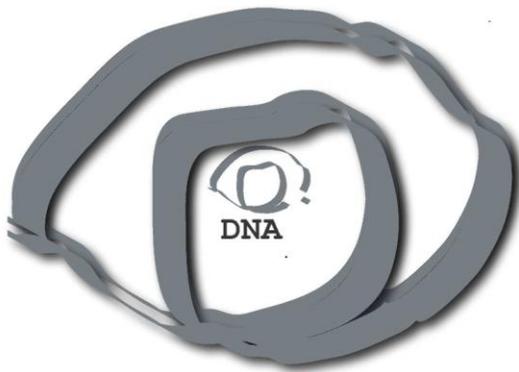
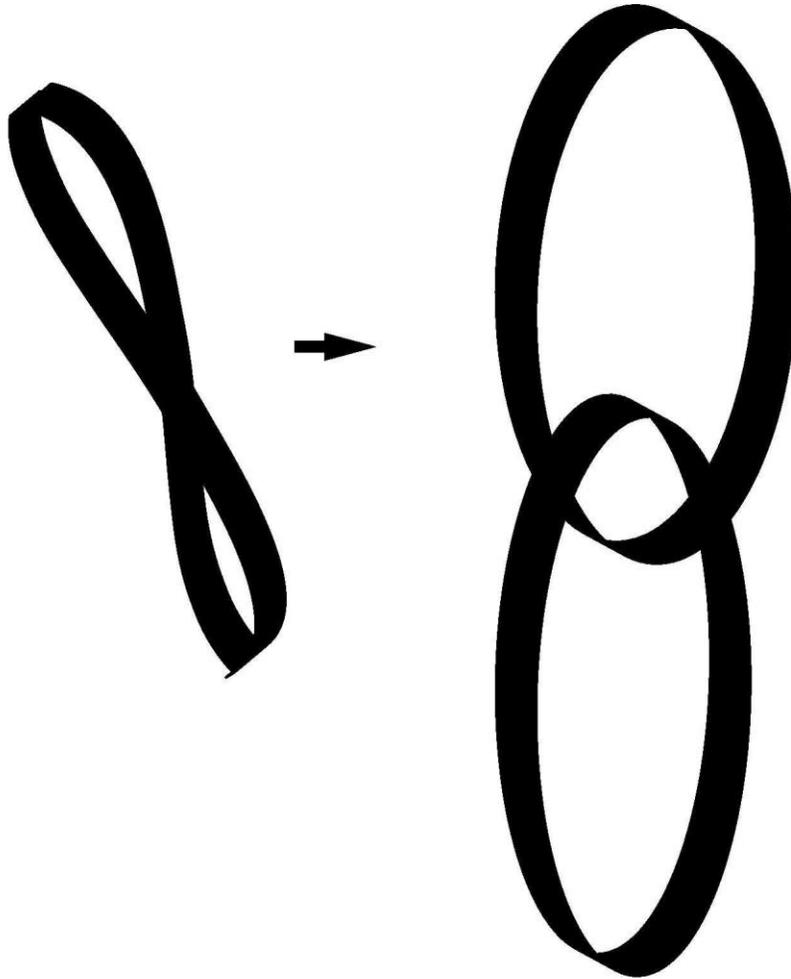


Figure 3 Geometry of the Mobius Strip



**Parent mobius strip and progeny looped structure from a longitudinal cut along the center line. looped structures reflect an energy possessing mirror symmetry attained in the formation of mass from energy. The chained loops are construed in a physical sense to be conceptually parallel with matter, the parent with the propagation of energy. A process is describable with the more fluid propagation of energy (the plane coordinate system of the parent mobius ) and matter (the translation from parent to progeny to from volume, parallel lines in the parent translate to constrained, energy possessing, associations. The world is construed to be wholely composed of parallel relations lessfor the married loop pair which is spatially constrained, manifest within matter; married loops, temporally identical are not meantto indicate chemical bonds but energy inhetent to chemicals,**

Figure 4 A graphical representation of an egg made from an equation (Equation 2). On the right is its' inverse (1/R)(black) super imposed on the non inverted form (green). Both the inverted and non inverted forms occupy comparable volumes and shapes, may represent a fitting of transparent energies/geometries to form a 'logic' of the universe

$E/m = \text{Velocity}^2/2 + \text{Light Velocity}^2$  (C (Speed of light) is applied as a variable

$R(a)\sin @ = \text{Velocity}$       $R(a)\cos @ = \text{Velocity of light}$

$\text{Radius}/\text{Radius}(a) = [[(\sin \theta)^2 + (\cos \theta)^2]^{1/2} (2 \cos \phi)^2]^{1/2}$

