

‘Every point (of view) is a world in itself.’ *Leibniz, philosopher of science*, on the fractal point of view, fundamental particle of the Universe

‘The why is the only thing a physicist should not ask.’  
*Feynman, physicist*, on the proud ignorance of Physics.

‘Out of Nothing I have invented a strange new Universe’.  
*Bolyai, mathematician*, on the Non-E Geometry of the 5<sup>th</sup> dimension

'Time has a logic higher than human logic'



*In the graph, all including humans are organisms made of time cycles that enclose a vital space, centered into a point of view.*

## SUMMARY.

**Intro.** Philosophers vs. Physicists. Time cycles vs. Timelines.

**I.** The worldcycle of superorganisms and its generator equation

**II.** An organic universe of fractal, cyclical time-space beings.

**III.** An overview of all sciences through its space-time generation.

## **INTRODUCTION.**

### **THE PHILOSOPHER OF SCIENCE VS. THE PHYSICIST: 2 DIFFERENT WORLDVIEWS.**

In this article we shall consider 2 different worldviews, which have always fought for supremacy in Science:

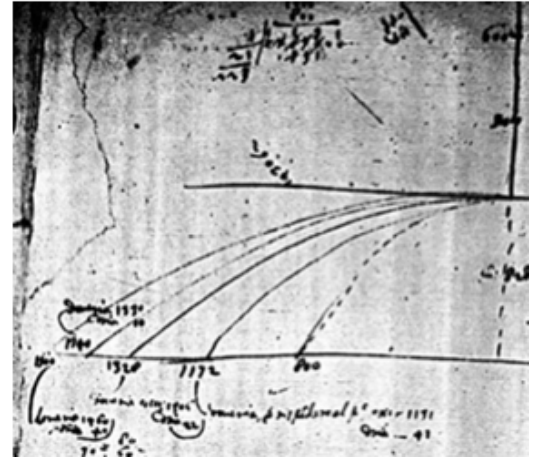
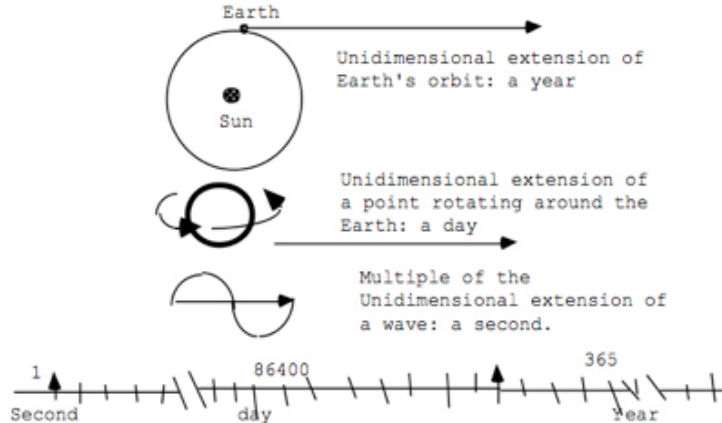
- The larger, all encompassing view of philosophers of science – larger in time, as it can be dated to the first Mathematicians, Pythagoras and Plato and the first Logicians, Aristotle, in the western ‘decoupling of history, and to their counterparts in the East, the Taoists, WengWang and Lao, and the Hindi and Buddhist philosophers - and larger in space, as it aims to explain ‘all’ knowledge of Humanity’, that is not only the experimental facts of all species, and all languages of knowledge– the mathematical languages of space, the temporal verbal languages, but also the human perceiver himself and its senses and artistic forms derived from them Vs.

- The reductionist view of physicists, which only considers a restricted part of reality – physical systems, only accepts a language of description, mathematics, only defines a form of motion in time, external translation in space, and yet surprisingly enough pretends with those very limited ‘parts’ of reality to have a Theory Of Everything that makes sense of all what exists. And what is more surprising, it has achieved global recognition as the ‘high popes of science’, excluding the work of philosophers of science from the search of ultimate knowledge. This is largely the product, not of the achievements and merits of physical theories in the explanation of reality but of its praxis – the construction of machines and weapons, which are the ultimate source of power of our technological civilization.

## GALILEO VS. DESCARTES.

### LINEAL LOCOMOTIONS VS. TIME VORTICES AND POINTS OF VIEW

A year: Cycle of existence of the Earth respect to the sun



*In the left graph, all time cycles return to its origin, creating a circle, but physicists uncoiled them and put all those revolutions one after another creating the concept of Lineal time – an artifact of measure, and equalizing all the different clocks of the Universe, all the different cyclical actions of its species with a single ‘time clock’ elongated into an infinite duration.*

In the right graph, Galileo's principle of lineal inertia, derived from his worldly profession. Galileo in fact created lineal time, because he was an artillery master for the Venetian arsenal, earning 1000 golden ducats, an astounding sum for the age, with the job of finding the longest lineal possible trajectory for canon shots (which he found to be alas! not a line but a parabola).

But that didn't deter him, from proclaiming in his first book called 'On military instruments', that his discovery of lineal time would be '...of great use to artillery masters, and a delight to philosophers'. It was a worldview that ratified the religious paradigm of Abrahamic religions, in which man had a lineal manifest destiny of progress even higher than that of God, the

mind of the Universe, since 'he was created in the beginning – hence before God himself - above heavens and Earth'.

The confusion of technology with knowledge carries a heavy toll for our understanding of reality. It first eliminates all internal elements of knowledge, the mind, and its languages.

Now we shall return to the proper definition of time and space in simple terms, from where we shall derive much more meaningful truths about reality:

*'Times are cyclical, closed motions. Spaces are lineal, open extensions'.*

The concept of cyclical times is not new. On the contrary, as it is evident in the left picture that all time clocks are cyclical, repetitive; the true mystery is how humans are so 'dumb', as to deny it in the modern age. Since all Asian cultures, and all western cultures till Galileo, did believe in cyclical times. The word in fact still lingers in the names of our newspapers: 'The New York Times', 'The Times of London'.

Moreover science would not exist if times were not cyclical as 'scientific laws' are merely the repetition in time of patterns of behavior and causality. So to deny cyclical times is to deny science, logic and objectivity. But it also means to deny the fundamental particle of the Universe – a being made of space-time cycles that 'thinks, therefore exists' as a world in itself.



## **ARISTOTLE VS. KEPLER. 6 MOTIONS OF TIMES.**

Further on by the reduction of all time motions or 'changes', which already Aristotle, the philosopher, classified in 6 types, 'conception', 'change of internal form or evolution', 'extinction', 'growth in size', 'diminution' and 'locomotion' to a single time motion 'locomotion', today called 'translation in space', physicists reduce time to a parameter that measures exactly and only that – translations in space.

And that would be Ok, if they acknowledge the other forms of time-change as relevant to truth. Yet when Kepler found the laws of locomotion of stars he affirmed, 'God has waited 5000 biblical years to find an intelligence like his to understand his clockwork'. So for Kepler all knowledge was to know,  $F=ma$ .

Now, as Physicists call its Theory of Locomotions, the Theory Of Everything or T.O.E, we shall call the theory of Philosophers of Science, which includes ALL the 6<sup>th</sup> Times motions of the beings of the Universe, a Theory of the Organic Everything or T.Œ as:

- it includes all things, and all motions, among which the most– 5 of them – have an organic nature (generation, evolution, growth, diminution and extinction). So we consider the not even found T.O.E, an inorganic simplex, description of physicists with a single lineal time motion a 'limiting' reduced version of the larger T.Œ.

Further on as all modern developments in mathematics and physics consider lineal inertial systems, just a short small view of cyclical, accelerated/decelerated systems – such is the case of the pan geometry of Lobachevski, where only for reduced distances space is Euclidean, becoming exponential, hyperbolic for larger ones; of the study of General Relativity and the motions of the galaxy at large scale, where all motions happen in an accelerated galactic vortex, towards its center; in the

study of fields; in the study of fractal spaces; in the study of Earth geodesics that only in short distances become planes; in the study of life cycles that only in small moments become invariable, in the study of the theory of Lineal Functions and Analysis, where only in short distances a curve function is approximated by a lineal tangent, etc. etc. we shall consider the lineal concepts of time and space, a limit of a much larger cyclical view of the Universe.

It will then be evident through a survey of the fundamental opposition between the worldview of physicists and Philosophers of science that advanced both opposite worldview of time and space, Galileo vs. Descartes, Newton vs. Leibniz, Darwin vs. Clausius; Minkowski vs. Sancho (this writer) that T..O.E vs. T.Æ gives us a very different outlook of the Universe. One describes only the how of reality, and its small details. While T.Æ gives us the larger whys and the thoughts of God.

The reduction of the 6 motions of time to a single external translation, where time merely is used to study the change in the speed and position in space of a being in lineal fashion is NOT a truth of Nature, but a truth of artillery masters, which once formalized became a canonical formula that excluded all other time formulae.

So this locomotion, described merely with a single mathematical formula by Galileo,  $V=S/T$ , converts Time in a parameter of space,  $S=vt$ , or in Einstein's-Minkowski's version,  $S=ct$ . This means that as 'things that are compared must have the same dimension and form', Time must acquired the fundamental property of space, which is to be a lineal, open extension. And by reason of this fictitious linearity of time, to be converted into a perfect line which is an Euclidean parallel extended to infinity.

The 6 motions of times thus became a single mode of change, their cyclical clock-like form, a lineal parallel, the finite

duration, an infinite lineal duration that 'walks' along an infinite space line. And both written in an abstract Cartesian single plane of reference, which in paper seems to extend to infinity and be unique, became the absurd concept of an infinite space-time continuum, that only exists in the imagination and the paper in which the model was drawn.

So how can we correct this 'fatal error' in the conception of time of mankind?

As it happens, 5 of those motions, generation, growth, evolution, diminution and extinction are organic changes that happen along the world cycle of existence of any entity of the Universe. So we can talk of a 'world cycle', instead of a 'worldline', which is the term physicists use to describe the motions in time of the Universe. It only rests to accommodate within that world cycle, the motions or translations in space, which we shall see latter are in fact the reproduction of information along a path of space-time as it happens in waves that impress its information in the matter over which they move. And so we will be able to accommodate the 6 motions of time into the new 'unit of time changes', the world cycle, which repeats the formal motions of the Universe, conserving it into a dynamic but eternal present.

### **The content of this post.**

We divide the introductory article on T.Æ in 3 parts. First we consider the work of the previous masters of Philosophy of Science, confronted with the vision of physicists, to fully grasp the importance of its statements, and advance further their views to form an organic whole.

In the second part, we describe the fundamental system of the universe which is a fractal space-time super organism extended across 3 relative scales of size of the 5th dimension (the quantum/cellular  $\Delta-1$  scale, the thermodynamic-organic,

$\Delta$ -scale, and the gravitational/ecosystemic  $\Delta+1$  scales.

And introduce the 3 ages of time, which resume the 'world cycle' (no longer a worldline as physicists put it, since cyclical time has more dimensions, it is a world cycle), of all beings, between youth and old, informative age, between conception and extinction, and the logic formalism needed to describe it (the generator equation).

Finally in the 3d part we make a fast survey of the main sciences of mankind, describing them with the isomorphic laws of all fractal space-time super organisms, and its world cycles, starting from mathematical geometries into astrophysics, biology and social sciences.

The isomorphic laws of cyclical Fractal space-time, develop with 2 degrees of complexity in the first and 3rd lines.

The specific studies of each science and its species in the 2nd and 4th line.

The work is ongoing and as I use the blog as my template, some articles are not corrected I do expect to finish 2016 the first two lines, which give a thorough review of those isomorphic laws and the main sciences of reality. The 3rd and 4th lines, which is the complete model will build slowly for the rest of my time, but it won't ever be complete as "only the Universe has all the information bout itself' Haldane.

# PART I.

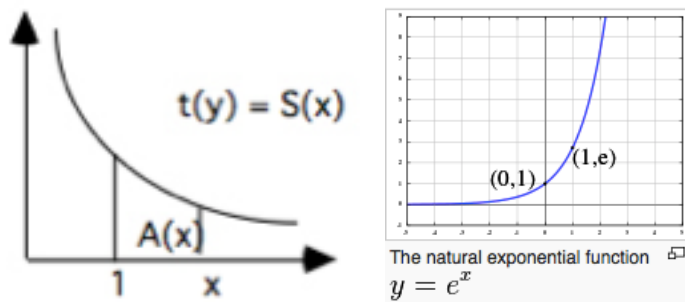
## SPACE-TIME WORLDCYCLES

### Duality:

#### Informative time cycles vs. Expansive Planes of Space

Now the key to understand the Universe is to understand the complex meanings and multiple possible perceptions of those  $2 \times 2$  elements, its ternary combinations (as space-time), and its symmetries and antisymmetries (inversion of properties). So algebraically the representation of the Space-Time Universe is the hyperbolic function:

Indeed transcending the material reality of those 2 formal motions, the logic underlying truth of all this is the inversion of the two poles of the Universe:



*The most important function of the Universe is the inverse function between Spatial expansion and Temporal Implosion in its infinite manifestations (in physics those laws are always of the type: Energetic information  $(ST) = \text{Space quanta } (H, k) \times \text{Time frequency } (v, T)$ . So we derive the fundamental laws of quantum and thermodynamics and the meaning of its constants, with the left side equation (which the nuclear physicist will immediately identify with the decay rate of an atom, and the 'entropic believer' with the  $Pv=nKT$ : gas law).*

*Its commonest mathematical function is the exponential,  $(1+1/n)^{TM}$  whereas '1' is the value of the whole system, n, the number of fractal  $\Delta$ -1 cellular parts, and T, its temporal repetition, which defines all processes of growth and decay, in which in each time period the system grows or diminishes a space-quanta (hence its time derivative is always proportional). In that regard, one of the most fascinating elements of T.Æ is the enlightenment of the equations of mathematics, the MOST REALIST of all sciences, as it describes in its 3 disciplines, 'fractal analysis', Non-Euclidean Geometry, and 'non-Aristotelian Algebra' the common isomorphic laws of all species of the Universe. Time permitted by Summertime we will add a 4th post to this section, with the fundamental laws of  $\neg\mathcal{A}$ , 'i-logic' mathematics'.*

In that regard, departing from the duality of Relativity (all dimensional forms are indistinguishable from relative motions), we have 4 possible 'entities' according to the duality of form and motion or the duality of Cycles Vs. lines:

- We shall call Cyclical motion, time clocks, which carry information in its cycles and frequency. So there is also:
- We shall call Cyclical form, information.

And then:

- We shall call Lineal motions, energies or entropies or lineal time duration.
- We shall call Lineal form, space dimensions.

This order has given primacy to the duality of lineal and cyclical forms, and its  $\emptyset$ -wave like combinations.

And so the Universe conserves both cyclical and lineal motions & still forms:

- Cyclical and lineal motions, that is, angular and lineal momentum, become then the main motions of time, which combine in  $\infty$   $\emptyset$ -waves.

- Cyclical information and lineal dimensions, that is spatial forms, which also combine to create complex organic systems with heads/particles of cyclical form that store information and lineal limbs/distances that process energy with its still forms.

Science is full of variations on those different symmetries and studies, and the interchangeability of both ways of observing the Universe to get the same results.

To stress though, that of all those terms, the most ambiguous is the physical concept of energy, which here we use sometimes as a synonymous of entropy or lineal motion (kinetic energy) in the common sense expression (I don't have energy, you have too much energy), expressed as the capacity to move, and opposed to information, also a wider term than the restricted concept of Shannon in physics, more akin to the common use of information as forms that can be perceived. Hence related to form. As a cycle do have more form than a line.

Reality thus is a game of two elements, spatial energy and temporal information and its combinations and transformation, symmetries and species made with them.

We thus fast forward to the expression of the Generator, feedback equation of the Universe of space-time beings, which Galileo and Newton missed (but Leibniz, the ignored Genius understood with his concept of fractal space and relational time):

| -Sp (Spatial Extension: fields/limbs) <ST (iterative waves-bodies) > It (heads-particles of temporal information).

If we see those 2 motions as forms, we talk of lineal space and forms of information. If we see them moving we talk of kinetic energy and cyclical clocks of time.

If we see them sequentially, we talk of flows of time. If we see

them co-existing in simultaneity, we talk of a simultaneous organism of:

Sp-limbs-fields<ST-Bodies-waves<Tf-Particles heads.

Since we ARE made of time cycles and lineal motions of space, perceived either as It: information, or Sp: space, in stillness, or Es: kinetic, lineal energy and Tf, cyclical time clocks when in motion.

This is the next huge advance of T.Æ, to know what we are made of: Es, energy and Tf, cyclical time, as when we say, 'I don't have energy any time to do this', perceived in stillness as Sp-bidimensional planes of space and tall, bidimensional planes of information, It; where bi-dimensionality means a 'thin sheet' as the thin screen of information which you are reading this blog.

Physicists call this fact the holographic principle of Information. They wonder why black holes seem to store all the information its bidimensional surface. They wonder how space and time can mess in space-time relativity IF only entities with the same number of dimensions can mess.

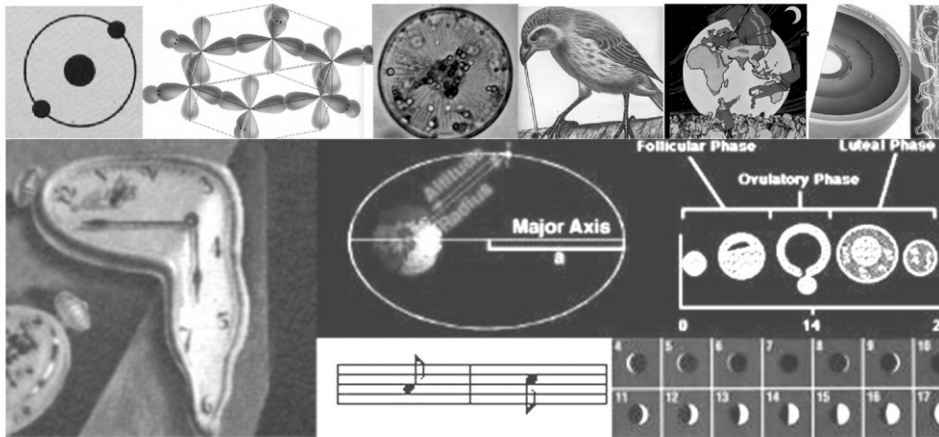
So we shall soon consider those concepts in physics. But before we do so we need to introduce the third element that structures the Universe and orders all those time cycles and vital spaces – the 5<sup>th</sup> dimension of relative sizes in space and speeds of time clocks.



## NEWTON vs. LEIBNIZ

### FRACTAL WORLDS, FINITESIMAL MONADS AND RELATIONAL SPACE-TIME: THE 5TH DIMENSION

**We are all relational space-time beings.**



*Time cycles divide space into an outer and inner region, which becomes a broken piece of vital space, surrounded by the 'membrane' of the time cycle - a 'space-time being' - the fundamental entity of the Universe. So the first big discovery of analyzing the Universe with the more complex concept of cyclical times, is to realize that we are all made of broken vital spaces with motion, commanded by logic, cyclical systems of information.*

*Time cycles are vortices, accelerating inwards the frequency of its clocks, the vital space is filled with entropy moving along the time cycle, and the point of view is a 'Cartesian mind', frame of reference of its own world-universe.*

*This ternary structure described by philosophers of science and Eastern religions - Aristotle, Descartes, Leibniz, Lao, Buddha - always escaped the reductionist view of physicists, of a Universe made of simplex, lineal 'locomotions'; where time becomes lineal, the vital space of energy and information is ill understood and the point of view, a mere scalar quantity.*

*We need thus to understand better the universe to expand our view of those maxwellian demons of informative cosmic orders, the souls, Atmans, frames of reference, non-Euclidean Points, Monads, Worlds, which all together play the game of the 6 motions in time, of existence, locomotion, evolution, growth diminution and extinction of each of its world cycles.*

*We shall complete the Universal view of a Reality of infinite fractal worlds, as opposed to the 'single World' of the Physicist who pretends to be describing the entire Universe.*

We shall state something that should be obvious but it is not, deformed by the lineal measures we make WITH time clocks: time clocks always run in cycles.

All time clocks are closed cycles, paths or knots that return to its origin, closing the cycle. And so they break space into an inner and outer region (fundamental law of knot theory and topology), creating an infinite array of cyclical membranes that close a vital space, forming the infinite beings of the universe we shall call knots of time cycles (mathematical jargons) of space-time beings (physical jargons) or species of energy and information (biological jargons).

A magnetic field acts as the membrane that protects a mass or electric field of points particles (reason why magnetic fields do NOT form monopoles, that is not their function).

That is, why time cycles will appear structurally as membranes that close a vital space and break reality into Space-time entities, of which the Universe, a puzzle, sum of those space-time beings is made.

The sum of tics of your heart gave the entire life of a human; the total number of cycles of a ball or wheel gives the lineal displacement of a car. The regular, repetitive patterns of those cycles are the origin of the so-called laws of science, which is

able to predict the future of the species it studies because they do repeat their orbital time cycles, the circadian, biological cycles, their reproductive life cycles.

But as they say, the devil is in the details. So the question to start our inquire is how exactly are we made of vital space and temporal cycles?

Obviously we all exist in a finite time between conception and extinction, and we all occupy a 'region of space', we carry with us. And then there is always the I, of the 'we', the point of view to create order among all those motions and form. Let us then put the 3 together in an organic, meaningful way.

We say that time is cyclical motion/form and space is open, lineal motion/form. As this is the truth of it, physicists despite using different names have found the simplest theoretical elements of their models are open strings (of space) and cyclical strings (of time).

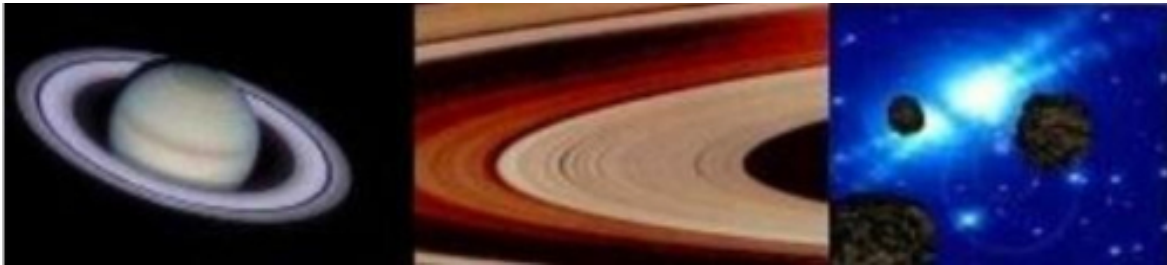
Yet there is a 3rd element on those Universal systems, which is by far the more interesting and less understood, which physicists of course also use in all their theories: the mathematical frame of reference, or zero point, the center of the circle, the point-particle that 'gauges information', without which again not a single theory of physics can be understood (it is the point of the inertial frame of reference that 'measures', the cause of their physical theories which are called for that reason 'gaging field theories').

So now we can expand our definition that 'time is a cyclical motion and space a lineal open motion'. And affirm that:

"All what exists is a combination of open' vital' spaces, enclosed by membrane-like Time cycles, which are centered in a fractal particle –point that gauges and process energy and information from its relative still frame of reference'."

## **Galilean Paradox. The principle of absolute relativity: minds cannot perceive together motion and form.**

The duality of motion-distance is similar to the way we see a car moving in a night picture as a fixed line, or the stop and go duality of a film projector, which is perceived as motion. And it has deep implications, which help to resolve many uncertainties of physics. The next graph illustrates this and other dual paradoxes of endophysics – motion vs. stillness; continuity vs. discontinuity, single space vs. fractal scales, all of which depend on the detail of the observation – hence the quantity of information we have on the object we study:



In the graph, Saturn's rings, first observed by Galileo, seem continuous, still and bidimensional from far away; but observed in detail they become discontinuous in motion and made of 4D spherical particles.

Moreover, what appears as a single space-time continuum in detail becomes at least 3 scales: that of the rings with cyclical motion, of its particles, the rocks that turn within them and the not seen but known scale of atoms that create the solid networks of those rocks. The 'present' state of science deals mainly with the single space-time continuum of the more 'obvious' human scale studied in terms of 'present'=differential motions,  $\partial t$ , with minimal latitude of time. The 5th and sixth dimensions deal with a longer duration from the absolute past (birth of the entity) to its absolute future (its death), when evolutions of form, frequencies of multiple actions and cycles of creation and extinction happen.

The Paradox of Galileo – ‘why if the Earth moves, we see it still?’ – is the key question to understand the meaning of dimensions, which can be generalized to all forms: ‘why we see reality still, if all what we study in the quantum scale has motion?’

The answer- given by quantum physics that we expand to all scales – is the law of complementarity: ‘all what exists is still and has motion at the same time; all is a ‘fixed particle’ and a ‘moving wave’, but we perceive a limited quantity of information about reality – either state, but not both dual, complementary states, a motion state and a still state, together.

### **The Philosopher of Science vs. The Physicist.**

It is indeed remarkable that of the 4 colossi who founded modern science, the 2 ‘pure physicists’, Galileo and Newton did not understand this obvious truth. While the 2 equal figures, which had however a more mathematical and philosophical background, Descartes and Leibniz, did grasped at once this ultimate fact of the Universe.

*So Descartes, contemporary of Galileo, and the true founder of modern science with his ‘Method of reasoning’ and the Frame of Reference of the mathematical mind, said that all what exists was made of:*

- *Open space, which he called ‘res extensa’.*
- *Closed, cyclical times, which he called ‘vortices’.*

And then he added a 3<sup>rd</sup> element, the final stroke of a genius unparalleled since the times of Aristotle; after realizing that the only proof he had of the existence of those vortices and res extensa was, the fact that he perceived them: *Cogito Ergo Sum. ‘I think therefore I am’.*



‘Infinitesimal self-centered O-Point x  $\infty$  cycles of space-time’ =  
O x  $\infty$  = C-constant Linguistic Mind mapping of the Universe’.

So each o-point eliminates information from the  $\infty$  beings in existence to reduce its information to an infinitesimal. In the human case, we reduce the 4 dimensions of our plane of existence to 2 dimensions for each eye, eliminating depth and motion to fit all that information in the mind.

So we convert time cycles into forms and they seem solid to us, and we convert vacuum space with entropic motions into lineal distances.

This is the most important property of those points of view - the capacity they have to reduce the Universe into a mind image, of linguistic nature, which explains the duality between 'motion perception and form', as all is motion, either cyclical time motion or space-kinetic energy motions but the mind reduces it to a still image, as Heraclitus or Buddha first realized, considering that the stillness of the Universe is a Maya of the senses.

### **Space $\approx$ Lineal motions. Information $\approx$ Time cycles**

*And so we need to differentiate between ‘lineal motions or lineal momentums’ (|-Sp) and its still continuous perception by the mind, or space (|-Sp), and cyclical motions, clocks of time, (O-Tf) and its still perception by the mind or information (It)’.*

*Since they are the 2 reverse sides of the same coin, we shall use the same symbols, merely inverting their order, and call them Spatial Extensions-Entropy-Energy and Temporal Form-Information, fully aware that humans used multiple different jargons and concepts to express the same, Es and It.*

So how to call both states; time cycles & spatial lineal motions?

*This is a difficult choice of wording, given the confuse terminology humans use for those a 'p priori states'. The proper way would be to call it fractal world vs. moving Universe, form vs. motion, virtual vs. real, and so on.* But as we are in a world of physical concepts, after much ambivalence in the terminology – not in the concepts and mathematical analysis of them – I came to settle in the classic terminology of philosophy based in the relative function of those 2 elements in the systems of the Universe and call generically:

- All states of relative motion 'time states' or 'time ages'. And its study diachronic studies.
- All states of relative form 'space states' or 'space organs'. And its study synchronic studies.

And yet keep the formal duality naming O-Time clocks, Time, but also |-Space motions, entropic spatial motions.

Why? Because in relative terms time motions, cyclical motions, vortices, implosive motions, are accelerated motions, while lineal motions, entropic motions, res extensa are decelerating motions. So in relative terms time moves faster than space. And this is the key to understand physical systems. So we can ascribe to the ternary elements of reality 3 type of motions/forms:

- Tfo: There are cyclical vortices, which are accelerated motions-states-forms. So they are studied with cyclical, accelerated equations. Such is the case of General Relativity, which studies the accelerated vortices of time created by masses. And their geometry is spherical, elliptic. They are the particle, or solid, crystal state in its center.

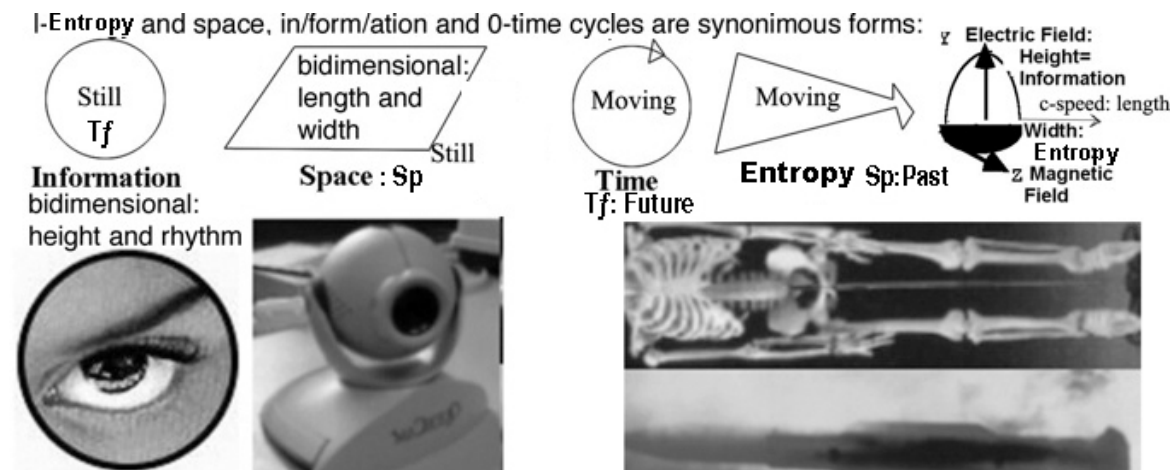
- Spe: The are entropic, big bang, expansive, res extensa, spatial motions, which however decelerate from the initial impetus and are the inverse of cyclical vortices. So we find



often the equations of a big bang correspond to the inverse equation of a cyclical vortex. For example, the equations of the cosmological big bang are the inverse of the equations of the black hole, as they are the limit of temporal vortices (the black hole) and expansive, res extensa (the big bang that creates space). And their geometry is planar, toroid. They are the field or gas state of physical systems.

- STœ: And there are ‘waves’ with a steady inertial constant speed, which combine both, cyclical and lineal elements, and their geometry is hyperbolic. They are the wave or liquid state of physical systems.

So let us introduce you to the much vaster wealth of knowledge provided by the proper understanding of ‘vortices’ of cyclical time and its interaction with res extensa, lineal space:



In the graph, the bidimensional nature of time cycles, divides the 4 dimensions of time-space in 2 'formal motions', tall, cyclical time, which carries the information of the Universe in the form and frequency of its cycles (as the n-sphere has the maximal volume in minimal space), as such is the gauging 'particle-head on top of all systems (so photons stay longer on top of the wave, your head is on top, as an informative mammal, with the dimension of height, eyes and cameras are spheres and antennae are on top, so are speakers: function is

form) and wide, lineal space planes, which are the most extended fastest distance between points so fast 'planes' are... planes, limbs and fields are planes.

Cyclical times have more form, more dimensions than lineal space, as they are time cycles, not lines, and this fact - that cyclical time, has more dimensions than a line, is vital to the whole understanding of time cycles. How many more dimensions?

Time cycles have actually 3 dimensions, or motions (depending on how you see the cycle, still or in motion), which we have always known.

Since space and time now had two dimensions each, we can compare them, and transform one into each other, we could write that property with a simple formula, where Sp is a flat plane of 'lineal space' and Tf is a cycle of tall time.

$Sp(\text{length, width}) \approx Tf(\text{height, frequency})$

This simple beat of existence, flat fields of space that become tall cycles of time, energy that converts into information, is one of the commonest beats of the universe. And its rhythms explain infinite transformations.

As only parameters with the same dimensionality can be transformed into each other; now we can transform space dimensions into time dimensions. So a cyclical vortex of time (a mass, a charge, an angular momentum, you name it) can be changed into an, entropic motion that expands into a plane of space, precisely because they are 2 dimensional. And this will then be carried to the 3 dimensional symmetry between 3 spatial topologies (toroid-limbs fields, hyperbolic waves-bodies and spherical heads-particles) and its 3 time motions-ages (entropic youth, fast motions; reproductive, iterative adult ages and informative, 3<sup>rd</sup> ages).

And then every 3 space-time symmetries that fill up a plane of the 5<sup>th</sup> dimension will emerge upwards or dissolve downwards into larger or smaller scales also with dual motions as ‘energy and information emerges’ into a new scale with new topologies of space, new motions and clocks of time, or dissolves into an infinity.

Now as always the simplest proofs of the bidimensionality of space and time, which is essential to the structure of the Universe, are mathematical. Of this, already the Greeks took note, as they could not calculate easily a cube volume from 2 cubes. The fact is, there is not superposition of tridimensional cubic forms:  $X^3+Y^3 \neq Z^3$ , the famous Fermat Theorem. And there are NOT numbers of 3 elements, but only single numbers, bidimensional numbers (complex numbers) and quaternary numbers (quaternions) *albeit without commutative properties*. An interesting property for more advanced courses.

So why we talk of 4 dimensions in standard physics, with a ‘signature’ of +, -, -, - whereas + is a time dimension and – means a space dimension? And further on in any bigger dimensional model physicists will always write a ‘signature’ of +, -, -, -, -, ..... , -. Simple, because they have no idea what to do with ‘time’, what a time dimension might mean, stuck in a single lineal time duration and entropy, spatial time dimension. As they have deformed time into lines and never got back and look at what they did, but accumulate deformation upon deformation, and now the ‘hump’ paraphrasing Nietzsche is so huge that there is no lion able to cut it off and run faster.

Indeed, even the + in Einstein’s Relativity is NOT pure time, but  $ct$ , and since  $c$  is a speed, hence  $v=s/t$ , really what we write here simplifying the concept is  $ct=s/t \times t = s$ , ‘eliminating time properties’ and making it lineal space-like. We analyze in depth many ‘times’ this spatialization that kills ALWAYS the 4

features of time cycles on the physical discourse: to be cyclical, hence to be repetitive and so causal reason of the repetitions and patterns we call laws of science, to break space into fractal inner vital spaces and outer regions and to be bidimensional at least to close the cycle.

Simple, the combination of bidimensional fields of energy and information creates a holographic Universe of space and time:

*Past-Sp>Future-Tf: field>particles.*

Or the superposition of layers of bidimensional 'present' wave-bodies create a ternary dimension, with a 4<sup>th</sup> dimension of motion:

$\Sigma$  bidimensional (space or time) layers -> 3 Dimensional (space or time volume or flow) -> 4 Dimensional (volume of space with motion, flow of time with form)/

Space as expansive, decelerating entropic field-motion and time clocks as cyclical accelerated motion are 2 concepts akin to Descartes' 'Res extensa' and 'vortices', which he considered rightly to be the two formal motions of the Universe are thus the ultimate poles of physical existence.

WE DO have though here 2 'symmetries', which constantly are used to explain reality. The dual symmetry of cyclical time clocks, accelerating inwards, and expansive entropy decelerating outwards.

But then we shall also consider the still vs. motion ternary symmetry between space and time: Sp-fields/limbs <ST-body waves>Tf-Heads/particles, perceived in simultaneous spatial stillness or temporal flow.

Yes, we know them so well, intuitively that before physicists reduced time to what the clock measures and not even that -

we learned to talk to describe them. So we invented 'verbal times' to explain the 3 dimensions-motions of time: past, present and future.

What is the difference between them? We shall soon get to it. But first we must resolve the implications of a time described as a cycle. First the obvious: if time is a cycle, there are infinite times, and what physicists call lineal time, absolute time, is as Leibniz, the philosopher said to Newton – well not to Newton, who would not receive him, but to Clarke, a ‘friend of a friend’ – is just the pegging together of all those finite time cycles. Next, if time is a cycle - and here is where the insights of Einstein have its value - we can SEE time, as long as the cycle is fast enough to close in less time that the eye takes into seeing. So all ‘time cycles’ that close in less than the second the eye takes into make a ‘still picture’ of the Universe.

And this brings us the solution to the second Principle of Physics: ‘e pur si muove, e pur no muove’. The relativity of all motions, which can not be distinguished from stillness, *when the cyclical motion is fast enough to seem a solid form in the case of closed time cycles, or when we are moving along the frame of reference of the other motion with the same ‘spatial lineal speed’.*

So in the same manner that Mr. Einstein built his Relativity on the aforementioned principle, (only referred to lineal space, as he never understood cyclical time), we shall build a much more rich meaning for the Universe, on the aforementioned principle, based in the duality of cyclical time forms of information or time clocks in motion and lineal space forms or distances and line motions.

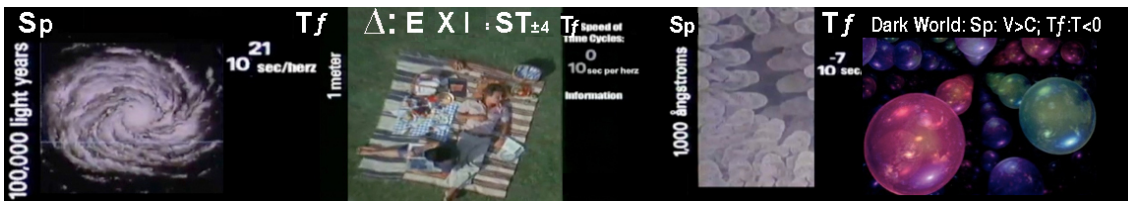
The reproduction of Motion dominates the perception of form. A Universe of repetitive actions of energy and time.

Now, it is important to understand that the Universe is made

of 'Energy and Time', 'Lineal and Angular momentum' Motion with form. But motion dominates form. Even if the mind things otherwise because of the Galilean Paradox. The perception of time and space as a moving cycle or line or a fixed form or distance is obviously an effect of the mind. It is NOT there, it is the mind that stops time cycles and lineal spatial motions.

This must be understood from the beginning, the ultimate reality is motion not form, time moves and space moves. They just move in different shapes. And then minds, lock those motions into a simultaneous, 'informative', 'dimensional' shape because it sees those motions in 'slow camera'. The arrival of filming makes this easier to understand. Stillness is just the perception of very fast cyclical motions, as when we see a turning wheel as a fixed form.

### The 5th dimension.



Now in a universe of infinite 'world cycles' of time, there must be a way to order them. Indeed. If there are infinite speeds of time cycles. So we need to order all those world cycles that require to study all those different sizes and speeds of the cycles of time of the Universe. But to do so we need to encase all those fractal space enclosed by cyclical time's in scales of size from micro to macrocosms and the actions beings perform within scales, in a mathematical, simple 'metrics' of space-time. This formalism is what we call the '5th dimension': a series of laws that order the infinite species of the Universe according to their size in space, and the speed of its cyclical actions in time.

Thus, the fifth dimension metrics is the ice cake element needed to order a fractal Universe broken up into an infinity of beings made of vital space and time cycles (of body-waves and particles-heads). Only then we have a scientific model able to order it all, with its bio-topo-logic properties, isomorphic laws and 5D metrics. This can be done since all those systems of 'spatial energy' (body/waves) and temporal information (particle heads), can be roughly classified by 'size' in space, and 'speed of motion and action-reaction' in time.

Then a 'new rule of order' appears: bigger systems move slower than larger ones. Their clocks and metabolisms tick slower. This is a Universal law: mice beat hearts faster than elephants and particles turn faster than galaxies. Yet the product of both, the spatial size and temporal speed of any system remains co-invariant. So we can write in a first approximation:  $S \times T = C$  and define a 5th dimension of scales of size that organize the Universe from past, smaller, faster systems into future, larger, slower systems. Moreover, for the first 'time', we find a clear arrow from a relative past to future, as wholes cannot exist without the evolution of simpler parts first.

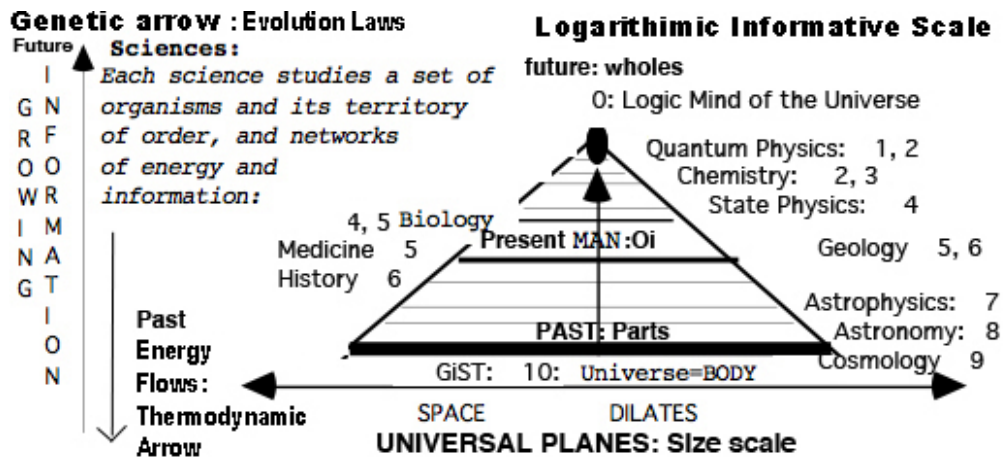
In the graph we can see 3 of such scales and its relative size and speed measure in frequency (the inverse of lineal time duration:  $T=1/f=1/T_0$ , whereas  $T_0$  or  $T_i$  are the fundamental symbols for cyclical time): The galaxy, the human and the DNA. Those scales create in groups of 3  $U_{\pm 1}$  'universal planes', complex organic systems, in which the faster speeds and information of smaller systems, codes larger wholes, which in turn control the motions of the smaller systems. And those are precisely the organic properties of the Universe, which extend also to physical systems.

### **Unification of sciences: A graph of scalar space-time.**

Each science is just the study of a scale of relative size,  $S_p$ , and Frequency of time cycles,  $T_f$ , of the Universe. So if we put

them all in a simple scale of co-invariant systems, whose product of size and time speed is co-invariant, we realise that each science is just the study of the species of an specific scale of size and temporal clocks, and putting them together we obtain, the scalar plane of a 5<sup>th</sup> dimension of infinite scales of size and speeds of time cycles that describe the more general laws of T.Æ with application to all the sciences and worlds of reality:

Let us see in a simplified graph those 3 elements, and how they can order all the species of the Universe, in different sciences, each one specialized in the study of a relative 'plane of space-time size/speed' of the Universe. Since indeed, the final concept to structure all knowledge is the realization that each science is merely the study of a relative scale of size of the Universe, from quantum physics (smaller scales), through chemistry (molecular scales), biology and history (human scales), geology and astronomy (cosmic scales):



*Each scale of size of the fifth dimension was then study by a different science, from the smallest quantum physics through chemistry to biology, history, Geology, astrophysics and cosmology. But only the metric laws of the 5th dimension and the properties of cyclical time could find the common laws of all of them, as all species followed a world cycle.*



## ABRAHAM VS. WENGWANG.

### ORGANIC WORLDCYCLES: THE 3 AGES OF EXISTENCE

'From one comes two, from two comes three, from three the infinite beings in existence' *Cheng Tzu, Taoist master. First full understanding of the world cycle of existence.*

'The Universe conserves and maximises present time, in the point of balance between time and space : Sp (past-space limbs/fields) x Tf (Future Time particles/heads) = ST-present body-waves (Max. ST: S=T)'.  
$$Sp \times Tf = ST$$

'At the end of Times, all people will become slaves of Yhwh or will be exterminated' *Sanhedrin, Talmud, Millenarian prophecy. Origin of Lineal time, Jihads & Biblical Racisms in all its forms, and the Western military, 'exceptionalist' and manifest destiny - to be exterminated.*

The concept of cyclical time is not new. On the contrary as it is evident that all time clocks are cyclical, repetitive, from your watch to the pendulum, from the orbital clocks of 'years' to those of 'days', to the frequency clocks of waves – *there is NOT a single clock in the Universe that measures time, which has not a cyclical form.*

*Now, this even a 3 years old child understands. And yet humans no longer see time as cyclical.*

The true mystery is WHY physicists first and by extension the rest of mankind denied it in the modern age. Since all Asian cultures, and all western cultures till Galileo, did understand that time was cyclical'). The answer is similar to the reason why around 4 billion human beings believe that an ass breeder

of the Bronze age, who saw a bush burning and claimed he had heard God in the cracking sound of the fire, is considered the man who understood better 'God', the mind of the Universe.

Yes my friend, Mr. Wenwang – the highest mind of mankind in the understanding of the cosmos and its ternary symmetries. Have you ever heard of him? We are going backwards ever since, and we will return to that. Because it was only when I solved the 8 baguas and its equivalence with the 8 varieties of topological manifolds combination of the 3 basic toroid, spherical and hyperbolic varieties, which become the 8 sub-ages of times-space, I understood Time-Space and understood myself, my past, my future, my present and could tabulate all the species of all the planes of existence of reality, from the 8-manifold ways of mental space of Buddhism, to the 8-manifold octets of quantum physics, to the 3 and 8 sub-ages of life, to the 8 planets and the 8 notes, the 8 cells and the 8 vowels of all the games of creation of the Universe,  $2^3$  that is the number of all names, the branching of all species, and permutations...

So in honor of Mr. Wenwang, we shall now consider the 3<sup>rd</sup> of the symmetries of the Universe, the 3 'ages of time=change', and then consider the modern version of time in physics in the last of our confrontations of philosophers of science vs. physicists.

Let us first remember the dualities of Sp and Tf, which are the 'first' simpler' steps, needed to reach the ternary symmetries of the full  $\rightarrow\mathcal{A}\mathcal{E}$  structure of the Universe.

### **Past, present and future: symmetry of time and space.**

Now we are confronted with a problem, which is the enormous ambivalence of human languages in the use of those 2 fundamental words, space and time, and its ternary formal motions, Sp, SxT: ST and Tf.

So we need to attach certain mathematical, geometric and logic concepts to our verbal terms to avoid so much ambivalence. Let us then return to Descartes and put some properties attached to those 3 symbols, which we advance ARE the 'ultimate' formal motions we care for, Sp, ST, Tf.

**-Sp or Spatial Extension**, is 'res extensa', something extended in 'space'. So it is a motion that expands in space, as in a big bang. And contrary to belief as it expands in space it decelerates in 'time' so it loses its 'time motion' till it becomes truly what ambivalent words tends to call Space- a still form. Thus space tends to slow down and extend itself; it does have motion but becomes finally a 'flat' extension.

**-Tf or Informative time cycles**, which carry the information of the Universe in the frequency and cyclical form of its cycles, is INVERSE in properties, as it actually accelerates inwards, as it becomes smaller, as all vortex do,  $V \times \text{Radius} = \text{Constant}$ . Thus smaller radius, turn faster, as it happens with angular momentum, black holes or hurricanes. And they become 'taller'.

So this shows some fundamental facts of **Sp vs. Tf**. They are inverse. They are both FORMAL MOTIONS; but space has LESS of both; it is flat on the long term, and slow to stillness, and Time is faster and a cycle, which tends to be tall. So we can ask also define them by dimensions. Of the 4 dimensions used today, space tends to have 2 of them, length and width, and time, width and height. And so they combine in the 'width' dimension, which brings us the 3rd element:

- **Sp x Tf: E x I: Reproductive, wave-bodies** that combine the entropy of space and the form of time clocks into 'meaningful', workable parameters, 'energy' (entropy with direction) and information (form with meaning).

So again, here we must focus in the 'Duality' between the Inverted 'yin and yang', 'cyclical form and lineal entropy', Sp and Tf, and its combinations that create the ternary 'formal

motions' of reality, which will structure all beings.

And realize that we can see them 'static' and then we will call them SPACE, or we can see them in motion and we will call them TIME. This is the way to proceed with the ambivalences of words and as we shall see also 'mathematical sciences', which after all start with words.

The 'reality', which is not human words, is made of two inverse elements, 'Entropic extensions, which are lineal, planar, and decelerate' and 'informative cycles, which are circular, and accelerate inwards'. And its geometric properties are VERY important, because lines and planes are more extensive and connect two points faster, and cycles are more informative and store more information in lesser space. So those 2 extremes are ultimately geometric motions, formal motions, and form, and motion  $\approx$  function are related.

And in the middle, there is a present, exi, merge of both, which is the most important element, the body-wave that combines cycles and lines, expansive and implosive motions. So we can then see this 3 elements in terms of 'temporal motions' or in terms of 'formal space', and we will talk of:

- |-Sp: Past Entropy, lineal formal motions >  $\emptyset$ -ST: Present, repetitive, body-waves > Tf: Informative, cyclical time clocks.

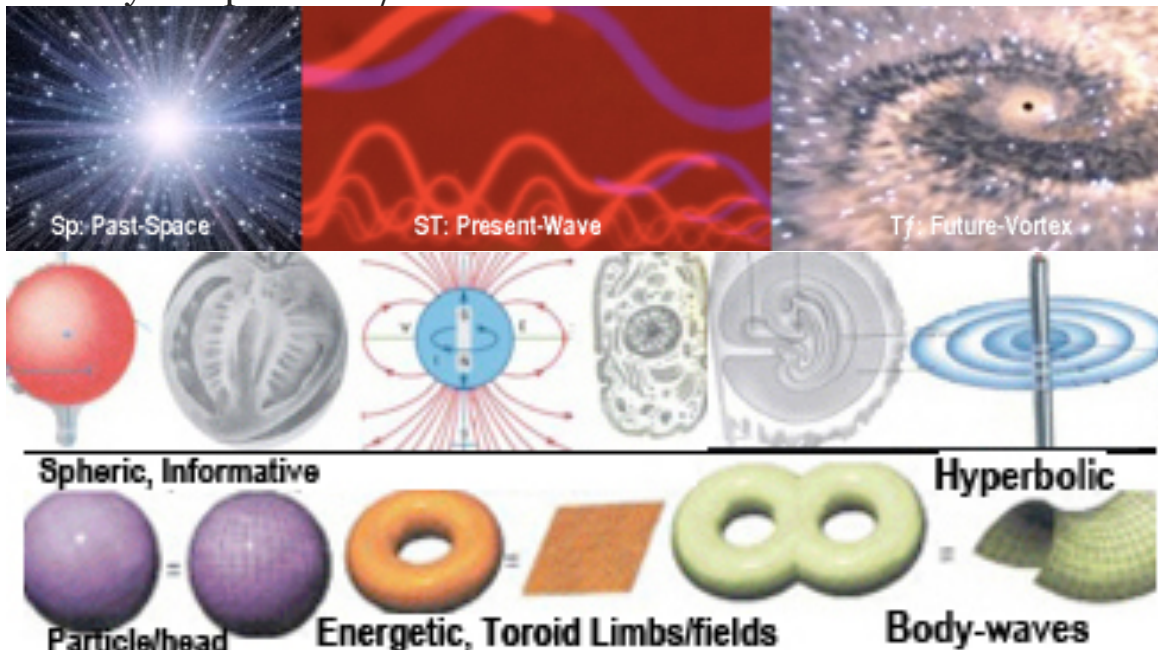
Now we can SEE that reality and this is also VERY important, as a sequence of motions in Time, and it turns out to be the 3 ages of existence. Or we can see them as Forms in Space and they create the ternary structure of all beings of reality, physical, biological or sociological. So we break it in 2 equations:

- The equation of the 3 parts of space (which we can simplify into  $Sp \Leftrightarrow Tf$ , for some systems), that relate the limbs/fields of spatial energy and particles/heads of temporal information

of systems, combined into waves. So we shall talk of 'fields-waves-particles', which interact together creating 'physical systems-organisms' and limbs-bodies-heads in 'biological organisms' and 'energy-class, re=productive class, and informative-class' in social organisms.

And this simple ternary scheme will be enough to describe any system of the Universe, because on top of that the mathematical universe has only 3 topological geometries, lineal-toroid limbs-fields, hyperbolic body-waves and spherical heads-particles, and each of them is the perfect geometry form to the function of lineal motion (toroid/lines/planes), reproductive processes (hyperbolic systems) and informative processes (particles-heads that store maximal form in minimal space).

- The equation of time, or the moving sequential flow of those 3 time motions which are in fact the origin of the 3 TIME AGES of all beings, dominated by those 3 'organic parts', a young energetic age of constant motion, an adult reproductive age, and a 3<sup>rd</sup> age of information dominated by the particles/heads.



If we observe those 3 motions as 'still forms in space', they give birth to the 3 'ONLY' topologies of our Universe:

The toroid, lineal entropic past-forms of limbs/fields; the spherical, informative, 'future forms' of heads/particles that DID guide the whole system towards its future; and its combined, hyperbolic, bodies/waves in the middle, that REPRODUCED the system.

Thus a deeper analysis of time cycles shows them to have always 3 'ages', 'phases', 'arrows', 'states' or 'dimensions':

- < (symbol of expansion flow), SP: Past, entropic motions, dominant in the youth, with a toroid, lineal expansive form.
- > (implosive flow), Tf: Future-form: a cyclical time vortex proper.
- $\approx$  (symbol of iterative wave): ST: Present-iterative motions that don't seem to change; or dynamic, body-wave motion

And this gave us the 2 'variations of the Generator which described existence in Time and Space, easily written as:

**Time:** Sp (young expansive age) > ST (adult, iterative-reproductive age)  $\geq$  Tf (informative age)  $\leq$  Sp (Back to the past: entropic death)

**Space:** Sp (Limbs/fields)  $\leq$  ST (body-wave)  $\leq$  It (head-particle)

Those symmetries correspond in space to the only 3 topological forms; hence systems can only be constructed with those 3 topologies that define as the graphs show all organisms and physical species.

### **The 3 arrows=motions of times.**

Now I realized I could consider this ternary 'reality' in ceteris paribus analysis as 3 pure time motions. Entropic expansive motions, repetitive body-waves and informative, time vortices.

Suddenly I realized, I had solved the *way the universe created its beings*, from the mystery of quantum physics, (the so-called wave-particle duality, as all physical systems were wave-particles moving on an entropic, accelerated field), to the reasons why evolution always worked right, choosing despite its seemingly infinite options the few 'efficient' aforementioned topologies (so wings were flat energetic members, and eyes spherical ones).

Namely *they were the only* available choices of topology. Alas! Curiously enough the great 'mystery of Darwinian biology', which he had also wondered about - the 'right choices of the seemingly chaotic process of evolution made sense, because after all there were a mathematical planning NOT of course a religious design. And the biggest Mystery of Physics (the complementarity wave-particle) also became resolved.

And this was to me the proof that I was indeed on the right path of T.Æ, because the 2 principles of truth, 'Simplicity, Minimalism (Occam's razor)', and Correspondence (a theory proves previous ones besides bringing more solutions), were met.

Equations of physics and biological designs kept pouring into the model and finding its whys, fitting all nicely. Something scientists did not even try to understand merely describing it now had easy whys, in the ternary symmetry in time and space of the Fractal Generator of the Universe, truly the 'Equation of God', not a 'Particle of God', not a 'substance', but a Logic, mathematical Symmetry of space-time that created us all, the details of that 'thought'.

But if we were made of time-space cycles and forms, of this ternary 'Generator' structure seen static in space as a formal organism, and moving in time as a series of cycles, it was necessary to analyze each of those 3 parts of all beings, and decide its inner structure and hierarchy.

Now, I am afraid we are going to refound also logic. I know I'm nuts. But what can I say. We cannot go further without a new logic, because if time has 3 arrows, then the simple A->Causes b does not work. It is more about ternary logic and symmetries in space, time and 5D. It is more about the GENERATOR fractal equation of the universe and its infinite variations.

So Non-A logic is a huge new science - the study of the symmetries between the 3 motions of time and its sequential ages and the 3 spatial forms and its organic parts. Its 'Generator feed-back equation' will be essential to describe all the beings of the Universe:

$\Gamma$ . Sp (young-past-entropic limb/field)  $\leq \geq$  ST (iterative, adult, present wave-particle)  $\leq \geq$  Tf (future, informative head/particle)

Where the symbol < means an expansive, energetic motion, > an implosive, informative one and = a repetitive present motion.

All what you see is encoded by that formula, either in space, Sp<ST<Tf (whereas the limb field provides entropic motion to the ST wave-body, and the Tf head particle provides information, and the ST body-wave reproduces the system), or in time, Es>ST>Tf, its inverse symmetry where energy young motions slowly warp into the adult and finally old age of information.

So we shall maintain the classic concepts of science and talk of 3 space dimensions, while dividing the dimension of lineal time in the 3 motions of time that we shall call 3 ages, to keep the convention that time has a 4th single dimension:

3 space forms symmetric to 3 time motions, but ordered in different ways Sp<ST<It, and Es>ST>Tf, how simple and beautiful the world cycles of space-time reveal the essence of



the Universe.

Those 2 simple laws, and its equations, the equation of the life-death cycle:

$E_s(\text{youth}) > S = T(\text{maturity}) > T_f(\text{3rd age}) \ll E_s(\text{entropic death})$ .

Where  $>$  means an implosive, informative arrow of time and  $\ll$  and entropic arrow of death.

5d metric is caused by the fact that the product of the size and speed of time of systems is relatively constant for different species of the same family (physical species, biological species) ARE the most important equations of science discovered since Relativity, and yet nobody was impressed.

Apart from explaining the life-death cycle, it explained the reason why information flows perfectly from lower scales (genetic scales) to upper wholes (since lower scales preserve more information) and there is however entropy, loss of energy when you move upwards, but when you move downwards, from wholes to parts, there is no loss of energy - so your cells follow your hand.

Suddenly I realized those scales of size were symbiotic and organized co-existences and synchronicities that created organisms and physical systems.

And so in mystical terms, the 5th dimension the dimension of future, of information, as parts must come before wholes, was also the dimension of eusocial evolution, of love, that justified the messages of love prophets, the Darwinian love of survival of the species, not the individual, the organization of history in scales of larger social units, since the future, the whole was stronger than the parts and survived. So I found that besides the actions of motion, energy and information there was an

action of social evolution in all beings. It is the survival program of the Universe, resumed in 5 vowels for each action:

$\Delta\text{æ}$ : acceleration-motion,  $\Delta\text{e}$ : energy feeding,  $\Delta\text{œ}$ : iteration, reproduction,  $\Delta\text{i}$  observer's gauging of information and  $\Delta\text{û}$ : social evolution of parts into universals. This was the will of survival, which explained the mathematical space-time cycles of physics and Nature, and history, which merged physics, biology and sociology

An entire Universe of whys to all sciences and harmonic laws was opening in front of my eyes.

### **The worldcycle of existence: travels through the 5<sup>th</sup> dimension.**

Now as I was a poet of words, a painter of images, with my Sp: I=Eye<Wor(l)d: Tf, my spatial and temporal 'human senses', my function of STi-ence, before I became a mathematician, I like to extract the deepest 'genetic grammar' of the English language, so you will see those 'games of words'.

I think therefore I Exist. That was the title of my first short film (-; Present is all, it is existence in preSenT, to combine your spatial and temporal functions into energy and information. So you will see in some texts, the Function of Existence in present space-time, as an entity of Energy and Information, written as Tf<ST<Sp.

This is a deep word, Tf is your head-particle of logic < your flow of form and orders to your ST wave-body of energy and information, which exists in a field of space-time, St, where it will perform your actions.

So all it is resumed in the function of existence, To Exi=st is all (if we were to use the concept of Energy and Information as rough synonymous of space-time). The details of the Infinite

Cycles of Existence of the Universe is what ExiStential Stiences do. Play with words. Do not think that only mathematical languages display all the beauty of the Universe, love and live with your human I=Eye<Wor(l)d, do art, believe in social love, the essence of the 5th dimension, BE HUMAN, because you ARE and your languages MATTER as much as those of mater do

So to fully grasp the 3 x 3 symmetries of the Universe, specially, the co-existence of several scales of infinitesimals into larger wholes I coined the concept of a super organism, each being a cell of the species - the super organism of the larger scale of the 5th dimension, which lasted more in time.

And man a super organism, each citizen a cell of mankind. I resolved then the meaning of Gods, the subconscious collective of a civilization, I classified them all, find their cycles of life and death, solved the 3 ages of its mental life, the 3 styles of art of all civilizations, the young epic art, classic and baroque informative age. And finally wrote the sequential equation of all time space world cycles of life and death:

Es: Youth (max. Spatial Extension) > ST: Adult, reproductive age > Tf-Informative, Future old age.

So the 3 topologies of space that formed beings have a sequential order, the 3 ages of life. Now we can always see a system in space or in time. And with any degree of detail. Let us then see some of the elements of the previous graph.

Let us see of those symmetries the 3 horizons of evolution of species, in its symmetry between spatial forms and temporal ages; starting from the earlier biological species, through the human being, ending in the Whole, the globalized planet, which contrary to all abstract, anthropomorphic descriptions of reality is NOT longer evolving us, human beings... as it SHOULD BE if T.Æ, the Organic paradigm dominated our

world.

**FRACTAL ORGANISMS D-EVOLVE ITS NETWORKS THROUGH 3+1 GENERATIONAL AGES**  
BIRTH: eti-1 < YOUTH: Max.Ei > MATURITY: ExTi > OLD AGE: Max. Ti < DEATH: eti-1

**Human Socio-Biological Organisms:**

i=3 i=4 i=3 Death of Cell

**Human Organism**

**Lower Plane** i=5 **cell**

**EPIC, LINEAL ART** **CLASSIC, REALIST ART,** **BAROQUE, FORMAL ART** **WAR**

**Culture : Human Super-Organism** **Death of Society**

**Birth** **Energy Hor.** **Reproductive Hor.** **Informative Hor.** **Extinction**

**Plasma Birth** **Energetic Gas** **Liquid, Reproductive State** **Solid, informative state, M=E death**

**Lower Plane** **States of Matter** **Lower Plane**

**Energetic Birth** **Steady, Spiral State** **Informative, Globular Age** **Quasar Death**

**Galaxies**

**Energy Big-Bang** **Steady State** **Big Crunch**

**Universe**

In the graph, the meaning of life and death, a world cycle of time, which is similar for each physical and biological species, and its equation, in the  $\neg\mathcal{A}$ , non-Aristotelian, Non-Euclidean Logic of the Universe of cyclical time.

In the graph, we have summarized all those scales and the 2 relative inverse arrows, which make a life-death cycle a 'loop' of time in 3 ages moving also upwards and downwards in the 5th dimension, origin of the 'Generator Equation' of 5D Fractal space-time, poised to become the most important equation of science in the XXI century, as it resumes its 3 elements, the motions up and down in scales of the 5th dimension, the 3 ages of time, dominated each one by the 3 parts of all organisms, which respond to the 3 only topologies of geometrical systems' - the young energetic age dominated by lineal toroid fields/limbs of entropy of maximal speed between 2 points, the mature, reproductive age dominated by present hyperbolic body-waves and the future-informative age dominated by spherical particle/heads of maximal informative storage:

$\Gamma \cdot \Delta-1$ : Sp (past-lineal, toroid limbs-fields)  $\leq \geq \Delta$ : ST (hyperbolic-planar body-waves)  $\leq \geq \Delta+1$  (spherical future particles-heads)

Whereas we introduce some basic symbols of 5D Metric,  $\Delta$  for the 5h dimension with an index for its planes,  $\Gamma$ , the G-generator equation, which can be studied for each system in detail and for each part in new ternary fractal divisions,  $<$ , the arrow of expansive entropy,  $>$  the arrow of future information and  $\approx =$ , the arrow of present balance, ST, the energy and information mixture of Sp: Spatial Extension and O-cyclical, temporal clocks with maximal form which body-waves mix in present states.

As both arrows can happen between entropic limbs-fields and waves, which move informative heads-particles and each part can be divided in new ternary parts (so for example your

informative nervous system divides into a lineal spinal chord that controls the energetic body and limbs, your brain with a hyperbolic grey matter and your smaller eye, the focus of your information, making you an I=Eye (max. Information;  $T_f$ ) < Wor(l)d=ST verbal brain: i think therefore I exist: max. balance, the site of your will and finally the spinal reflex past system of control of your external motions - that obsessive part of a system of time space physicists study so well, but so simple when you know the whole depth of time space (-;

The old age is one of information.  $\approx$  means a repetitive, parallel wave of present, and... uh, where it is < the arrow of entropy? It SEEMS that all goes > warping space into mass, or  $\approx$  repeating itself. Alas! What else there is there in the Universe after conception, young expansive ages, repetitive, reproductive maturity and old, informative age, which erases < entropically information to close the 'world cycle' of existence.

Thus for each world cycle of existence, Death is the final reversal of the arrow of informative time from past to future into the arrow of disorder from future to past or entropy arrow, <.

And to compensate the two arrows  $Sp > Sp \times T_f$  (ab.ST)  $> T_f$ , DEATH must be TWICE  $<<$  entropy.

It must be Max. return to  $Sp$ ,  $T_f << Sp$ ; a huge big bang expansion of information into Space with no form.

Death = Max.  $Sp \times$  Min.  $T_f = Sp \rightarrow \infty \times T_f \rightarrow 0$ .

So when you die in an instant of Time,  $T_f \rightarrow 0$  all your information returns to space, the cycle of existence ends and you expand in space, burn into atoms in the incinerator; insects eat you up, dust of space time you become.

It is also the equation of the big-bang, when in an infinitesimal

moment of time, the previous Living Universe, expanded wildly under the inflaton field to enormous distances, in a single Planck quantum of death.

See the beats of existence, of the 3 arrows of time, of lives and deaths, of opening and closing wings, entropy-form...

It is the combination of the 5th dimension of space-time and the 3 ages of life what solved that equation, as we ALL BEINGS ARE BORN on the seminal faster, lower scale of the fifth dimension grow fast and then die back to the lower scale. And then I made to myself a big statement:

'Existence is a worldcycle through  $3 \pm n$  planes of the 5th dimension' (:

Indeed, Klein defined a dimension as a system, which had a co-invariant 'space-time metric', which allowed displacements through such dimension. And the co-invariant law of the 5th dimension,  $[Sp \times Tf = K] \Delta \pm 1$ , defined the existence of any being in the Universe as a travel through the 5th dimension, which implied a 'growth in size' (Sp), coupled with a slow down in its temporal clocks (Tf), limited to 3 of such planes; which created a series of 'families' of 'world cycles' (no longer world lines as in 4D physics, since now each time cycle had a new dimension of 'height, and growth').

So all beings are born in a seminal relative infinitesimal scale and grew larger, as they multiplied in clone cells and reorganize them into bigger wholes, from the quantum/cellular to the matter/organic scales (biological and physical systems), emerging as slower growing beings into the outside  $\Delta + 1$  social, ecosystemic, gravitational world, to return back through an expansive, Sp, explosion into the moment of death.

So I wrote the equation of existence, of all world cycles of the Universe; as they are conceived, as points of pure genetic/

memetic/quantic information that reproduce, evolve, emerge as single beings, live 3 ages and explode in a relative big-bang death, back into a flat plane of space without motion.

The only difference between the beings of those scales was the size and length of the world cycle, as larger beings had slower time cycles and lasted longer, but all have the same subjective time existence - an insect beating 10 times faster and living 7 x10 years.

And each of those infinitesimals who become wholes, and live and die through 3 arrows of time, back and forth, could be described now properly with the logic, mathematical formalism, of all complex space-time languages, which reflected in its monad minds the fractal structure of the universe.

### **The conservation of Presents.**

Now, T.Æ has certain basic rules of thought, based in the stringent minimal conditions for truth established by the scientific method, and the geometric structure of the Non-Euclidean space.

To it we can add the principles of conservations of physics, which in fractal space-time, is rather simple, embodying all other principles of conservation:

‘The Universe conserves the Present’.

Now what this mean in logic terms is easier than explaining it in mathematical terms, though we will do so.

Basically it says that the present stays. It is all what exists, and what philosophically the Universe conserves. But what is the present? The question here is expressed with a principle, quite proved, the principle of conservation of energy, and other still



complex, called the principle of conservation of information. As this second 'concept' is ill defined.

A simple case will illustrate this lack of precise definitions, for the concept of information and its inverse, entropy: I thought of calling it "information", but the word was overly used, so Von Neumann told me, "You should call it entropy, nobody knows what entropy really is, so in a debate you will always have the advantage."

Neumann to Shannon.

Now, it is important to clarify those concepts around the 'real ones':

/Spe: Space-Past-Plane-Entropy, res Extensa, a lineal form and motion that expands in space.

$\Phi$ ,  $f$ ,  $t$ : the frequency in time of the reproduction or repetition of that space-quanta, minimal plane of reality, which is bidimensional and becomes then, 'converted' into a fluctuation along the height and rhythm dimensions of time cycles:

ST: A space-time plane of present, which combines the expansive motions of past, space, res extensa, and the implosive motions of cyclical accelerating time clocks - the wave-body reproductive state of a form.

Now, what is the present, goes well beyond the physical study of a single motion of time, as there are 6 motions, which were understood by philosophers, well before physics of lineal motions, or locomotions, existed. This must be understood, Aristotle declared 6 motions, 5 of which were organic, generation, growth, evolution, diminution, extinction and locomotion, which is the one treated abstractly by physicists.

We shall show though by resolving Zeno's paradox that motion

is reproduction of form, in an adjacent fractal point of space-time, and as such is part of the 5 organic motions, which converts the Universe in a constant orgasm, of present 'repetition of form'.

Present is iteration, reproduction, repetition, as it is evident for anyone who observes the Universe as a dynamic system, which however seems not to change. And this happens because motions with form reproduce, repeat, exist in present, and this simple equation – fact:

Space x Time, Entropy x Information, Past x Future =  
Energetic Present Time

Which is what the Universe conserves. From this simple realization of the mind-point, we can create a full theory of reality which includes all sciences, as all happen in time and space, in past and future, in present space-time, repeating each of them its cycles of existence.

So what is present? A closed cycle a conservative force, a path allowed because it will return to its origin, in a similar antisymmetric back to the past form, cancelling the arrow of time-life-information, in a single sweeping motion at fast speed, on a quanta of time, called death.

The worldcycle in organic terms thus is a cycle of 6 motions, Generation, growth, locomotion, evolution, diminution, extinction.

In which the origin and the end 'coincide' in terms of the 'zero-sum of information', 'zero sum of energy', of the total cycles and all its partial motions.

We shall therefore departing from this fact, expressed in the Equation of a worldcycle (a closed cycle of space-time), develop the laws of all science.

In this post we shall do the proper with the Physical sciences.

Let us then remember the equations of present explained in T.œ:

$$Sp \times Tf = ST$$

$$Sp > < T = ST$$

$$Sp > ST < T$$

This simple equation of Present, can be written as a Simple Lagrangian, such as the potential energy, or energy of position and form, or  $Tf$  and the kinetic energy, or  $Sp$ , tend to balance ( $Sp - Tf \approx 0 \rightarrow Sp \approx Tf$ ).

### **The 3 motions=ages of time and its parallel forms of space.**

This always surprised me. How people could believe in a single infinite time duration if their 'time cycles of life and death were all similar to those of all other beings and all were finite?'

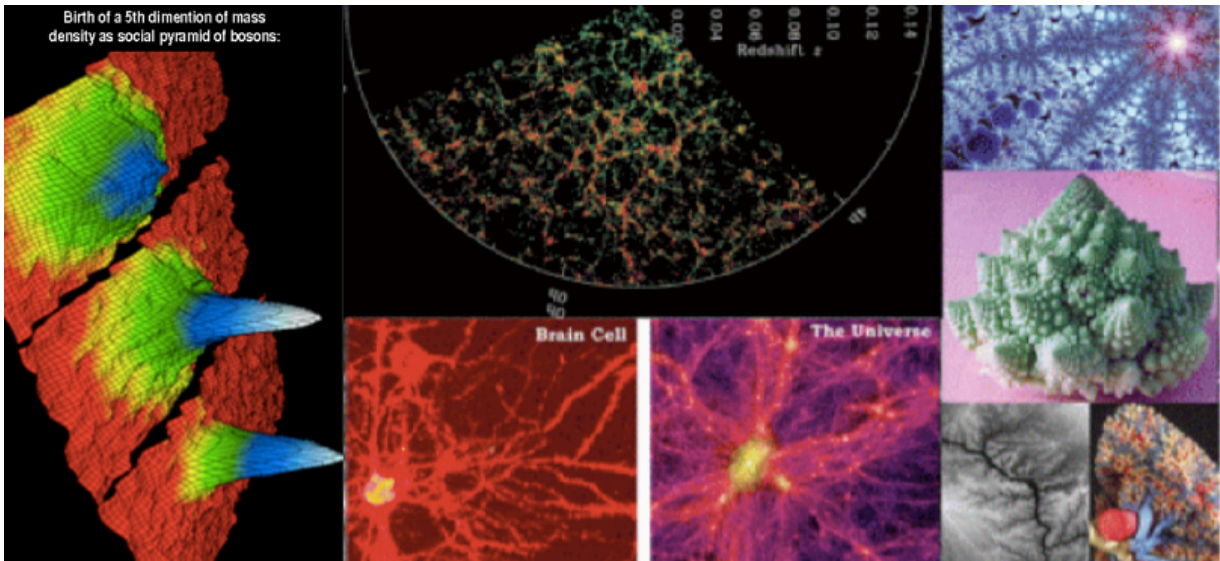
Let us give you a first hint to what might be considered the most important sequential beat of time - the finite life death cycle of beings:

All systems are born as seminal seeds, including physical systems (crystals, black holes), growing, going through 3 ages and then dying away back to simpler forms. So they had to be made of finite time cycles which somewhat warped, wrinkled their vital spaces.

But T.œ requires topping the cake, with an eternal equation – why we exist? The answer is organic and obvious: to survive. As if we didn't we would not exist. And then all comes to the question, how we survive? And this is an organic, biological

question: providing energy and information to our ternary systems, and further on, evolving into larger, more powerful wholes, through the 5<sup>th</sup> dimension. And this simple truth is the program of the Universe.

It is worth to repeat: 'the 5th dimension is a dimension of time, from past to future and future to past. The 4th dimension is the dimension of 'present', as it is calculated in both versions, Galilean and Einstein's relativity, with  $\partial t = \partial s / \partial v$ , instantaneous derivatives, 'moments' of present time; and in Einstein's different notations with Lagrangians, 'o' derivatives and simultaneous=present measures. Now, the motivation of understanding the past to future causal, deterministic time flows is what makes 5D metrics so fascinating. In



*In the graph, the Universe is made of scales of relative size and speed of time in its clocks, which carry the information of each of its 'fractal world-systems'.*

**languages reduce Universe to still, ternary worlds.**

Thus what is real is the duality of motions, infinite cyclical and lineal motions, which are used by different minds to replicate reality into still minds that map part of those motions to create different worlds.

For example, Computers use O and | to create models of the Universe.

Humans use words also in a ternary symmetry, where the point is the o-subject, the energy of the point the |-object, over which it enacts a verbal action. So when we say 'I eat bread', 'I' is the point, 'bread' the object of vital space, and 'eat' the feeding implosive action. This allowed linguistics to create the Universal Grammar of all languages:

Subject (o-point) < Verb (action: O x ||) > |-Object (Energy of the subject).

On the other hand visual languages are also ternary in colors and forms. So the eyes use lines and cycles to create 'conic curves', which are all the curves that exist in Euclidean Geometry and so on.

So we can now extend our definition of reality to include its 3<sup>rd</sup> elements, which conform a word, whose infinite sum creates the Universe:

*A Constant, Dynamic World is born of the interaction of both formal motions, vital spaces, enclosed by times connected by a mind that measures them: Ø”*

*The Universe is a puzzle sum of ∞ such Worlds:*

$$U = \sum \emptyset \times \infty = C'$$

This is what Descartes explained to the (Human) World, sum of all human minds.

We were all, so to speak, thoughts of God, the Mind of the Universe, understood as the underlying language with the common 'isomorphic laws' shared in the construction of all those 'virtual worlds', including the human world, since you

are not watching the Universe, but the electronic image, your eyes and brain constructs with rods of space, called 'light-speed', and cycles of time, called 'h-quanta', pieces of lineal and angular momentum that build up the puzzle of your mind.

### **Knowledge vs. power.**

But nobody understood among physicists, because while Galileo had failed to be 'the delight of philosophers', his lineal time had become of great use to artillery masters, which carried the day and made him and his family, dedicated to manufacture 'military instruments', among them the famous 'spy-glasses', today called telescopes that allowed the Venetian navy to see on advance the enemy fleet, one of the wealthiest men of renaissance Italy.

Descartes meanwhile had to make his living selling his mind to 'artillery masters', till queen Cristina, the 'Minerva of the north', knowing he had a poor health, perversely made the 53-year-old Descartes rise before 5:00 AM to give her philosophy lessons, even though she knew of his habit of lying in bed until 11 o'clock in the morning.

She also ordered him to write verses to celebrate her role in the Thirty Years' War, where one third of the German people die, and the statutes for a Swedish Academy. She had no role whatsoever on the war, but his father, Gustav, had r=evolved the science of ballistics, as an artillery master, massing up canons instead of soldiers, for which he was called a Genius. It was all in the family. His grand-father Charles who usurped the throne pronounced the sentence 'Bellum ipse alleat', 'war feed itself', starting the trend of Western nations to dedicate most of their resources to war, to feed its cannonballs while most people at home and abroad died of hunger.

Descartes yielded though to Minerva, the Roman Goddess of war... and the arts – what those 2 things have to do, nobody

really knew, except the shrewd military caudillos and artillery masters that sell their craft - murdering life - with the propaganda of knowledge and beauty, which seems to be acquired in the carnage of battlefields and through the study of entropy, lineal cannonballs and death, properly glorified by Hymns, military marches and battle pictures since the times of Assurbanipal and his low-relief, lineal walls, and dying lioness.

So while delivering hymns and statutes to the queen at 5:00 AM, Descartes caught pneumonia and died, saying, laconically, 'in winter men's thoughts freeze like the water'.

And so his most important discovery along analytic geometry, the nature of the 3 elements in which reality is founded, Vital spaces, enclosed by Time cycles, perceived by a o-mind, floundered for a long century.

Meanwhile artillery masters prospered, as the forebears of the makers of all the weapons of mass destruction of the future, and so did Swedish Minervas, and Academies, till Mr. Nobel, the inventor of the dynamite, biggest producer of weapons of the XIX c. nicknamed the 'Merchant of death', became the wealthiest man of his age, and like Minerva, instituted the Saint Nobels of the Dynamite, to convert artillery masters in the Popes of Science. He though forbade to give it to any evolutionary thinker, since being a pious believer in Yahweh, and the manifest destiny of lineal time, could not conceive the concept of a r=evolution of times.

In fact, besides physicists only Abrahamic Religions, not exactly a science, do believe in a lineal 'future', of a 'chosen species', which will reunite with a mythic God of the Bronze Age... And not surprisingly Newton, the next 'physicist' who made absolute lineal time sacred dedicated most of his time to Biblical studies, was obsessed by Apocalypse and considered lineal time the absolute proof of the existence of Yahweh. And Kepler said 'God has waited 5000 years - the biblical age of the

creation of the world - to find an intelligence like his (Kepler of course) to understand his clock-work. Today a priest, Lemaitre 'discovered' the lineal big bang, which is just a creationist version of it.

The answer then of why western physicists believe and force feed their equations with such concept that so much confuses our understanding of the Universe, against all reason in lineal time should be obvious to the few humans who can 'reason' and accept 'criticism', instead of belief and memory: the founding fathers', Abrahamic religion and the worldly profession of most of them - to make weapons that deliver lineal energy and machines that move fast.

### **The Euclidean Mind of light-space. Kant.**

Newton indeed believe mainly in 2 things: Yahweh and absolute lineal time and space, a background abstract reference set up by God, who talked to him with comets.

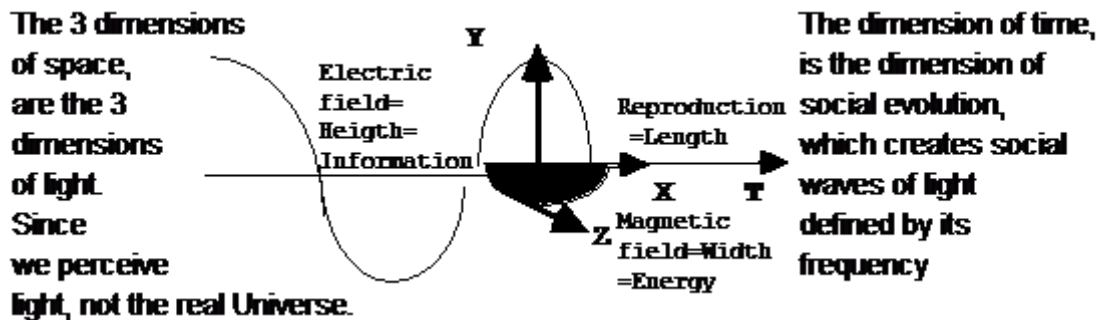
So he studied the Cartesian graph, when reading 'La geometrie' which he acknowledged was the beginning of his interest for science.

But for him the graph and its lineal coordinates were not merely the human mind-world, but the graph that represented ALL of reality, which he blew to cosmic proportions and affirmed to be the graph of the absolute Universe and its space-time. This is NOT truth, and we will bring here a simple proof, derived from Kant's realization that we 'see light space-time', because the 'human mind is Euclidean', which latter influenced the perception of painters, creating impressionist, as they realized also that we do NOT paint reality but light, THE RELATIVE SPACE-TIME our electronic eyes measure:

A light quantum has the 3 perpendicular dimensions of the informative electric field, the magnetic entropic field and the



lineal c-speed that reproduces the wave. And those are the 3 exact perpendicular dimensions of our perceived space, as our eyes are electronic and feed on the information of light – hence also establish light as its fixed rod of measure or constant space, (relativity) but the universe has multiple world-views, and some are non-Euclidean (gravitational worldwide) some are atomic (smelling worldview) etc. Human eyes and mechanical eyes though are electronic, and their bits of information visual, hence Euclidean:



*In the graph the Euclidean world is caused by the 3 perpendicular arrows of light space-time to which we add the social colors. 2 more elements are needed to define our human space-time, first the organic relationships between our electronic eyes that feed on light, and the properties of information – as information is perceived in stillness, in an stop and go motion, similar to that of a film – so electrons go and move as waves, stop and feed and perceive light as particles, entangling its distances with other electrons in ‘fixed’ distances. Hence c-speed is always constant, our rod of space, as relativity proves, without giving the proper i-logic explanation.*

It is indeed essential for the reader to understand that linguistic mappings, stifle and deform the objective similarity of all beings.

So all kind of distorted images that carry a certain truth are possible, and relatively correct, but ONLY an objective analysis

from the widest possible perspective, will make sense of all of them.

This widest Theory Of Everything, naturally can only be proposed by a Philosopher of Science, whose task is precisely to understand all the varieties of 'formal motions' and 'ternary symmetries' in space and time, measured by the infinite frames of reference of the Universe.

While each science and scientist will study a particular form and type of species in its detail, with more or less deformation according to the linguistic models it proposes, its specific 'ego-centered paradox' and the 'worldly profession', it engages with. Which of course the Philosopher of Science must also explain, to the chagrin of the different 'Religions', 'Cultures' and 'Minervas of the North', and the sure solitude that will engulf his work.

So how can we differentiate subjective truths, and biases? To that aim the philosopher of science has created the 'Scientific method', which the likes of Aristotle and Descartes established, and the likes of Galileo and Newton usurped and deformed.

But as we said all relative truths carry certain information, which is valid to create a mapping of reality and that is why subjective versions of reality do work and remain standing. Indeed, Ptolemy could perfectly establish the orbits of planets with the Earth at its center, just adding epicycles. But it was a very complicated motions. Thus Science considers the fundamental 'tool' to distinguish a higher objective truth from a subjective one, called Ockham's razor: the simplest theory of reality which can explain the maximal number of facts is a more objective truth.

This was the merit of Descartes, the true founder of modern science, which we have upgraded to our ternary analysis of all systems of the Universe, in what we shall call, T.Æ, the Theory

of the Organic Everything, as all those ternary systems made of cyclical times, lineal spaces and self-centered territorial points of view that organize them, will show clear 'organic patterns in its form and actions.

Let us then, keep narrating, the next installment of the history of western thought, and its duality between the Philosophers of science, who know better vs. the Physicists, who have more power – explain in modern terms the findings of Descartes, with the help of the new mathematical tools of topology and fractal geometry those discoveries, in more detail.

### **The 3 topologies of all Universal systems: vital spaces, cyclical membranes and o-points of measure.**

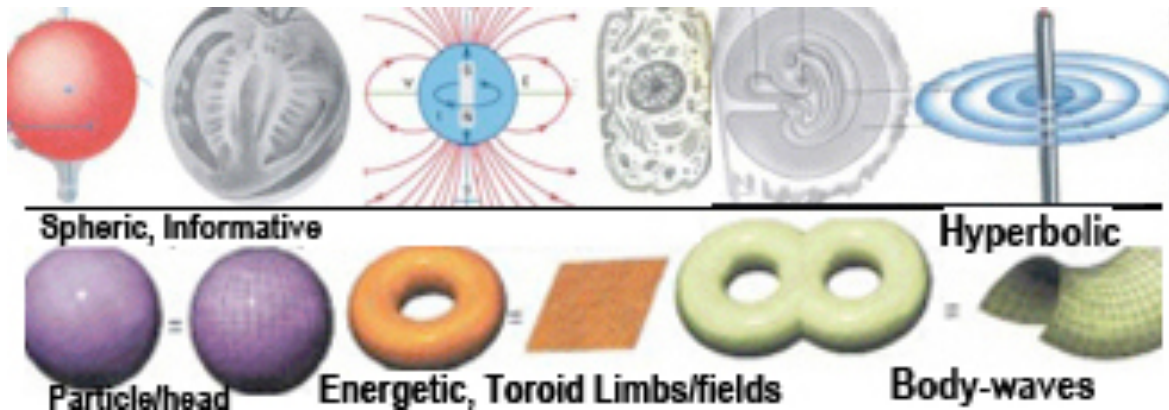
So we find in the Universe always 3 elements in all systems, which correspond to the 3 'topologies' of mathematics, and the 3 'ages' of life world cycles (since life is cyclical ,changes in time are NOT worldlines as physicists believe, but world cycles):

- The vital space of lineal motions, enclosed by the cyclical membranes and time cycles, focused in a central point of view or frame of reference, of maximal density of information that gauges information, linguistically and has the structure of a Non-Euclidean, Fractal point, through which multiple 'parallels of energy and information' can cross.

This 'mind, soul, god, monad, Maxwellian Demon' that creates the order of the Universe will be then defined by a simple mathematical equation and geometry as a o-point, whose function will be to maintain the whole system 'stable'; that is in biological terms 'to make it survive'. It does not need to be conscious, but as Leibniz described it in his work on monads, apperceive mathematically, vegetatively or linguistically, because simply speaking, Evolution implies that a system which 'maintains the 'whole' stable and survive lasts on time.

So automatically as time goes, ONLY systems who had this ternary efficient, symmetric, stable configuration have lasted, have been selected.

This definition, when translated to mathematical physics, coupled with the Principle of Relativity as defined by Poincare-Einstein, 'we cannot distinguish motion from stillness' will allow us to derive all the laws of Physics and explains its main systems. So for example, an atom has a central point of view of maximal density; but it has the advantage that can be applied to all other sciences, to define all the laws of knowledge.



In the graph, a few of the ternary systems, made with the 3 only topologies-functions of all systems of the Universe, an atom, a tomato, a planet, a cell an embryo and an electromagnetic field. Though at first sight their resemblance might seem a mere coincidence, all of them are ternary systems, which we can describe with the same 'Generator equation' of  $\sim \mathcal{A}E$  mathematics, the formalism of T. $\alpha$  (the Organic Theory of Everything, which unifies all sciences as descriptions of such systems in any scale of the Universe).

All of them will be made of:

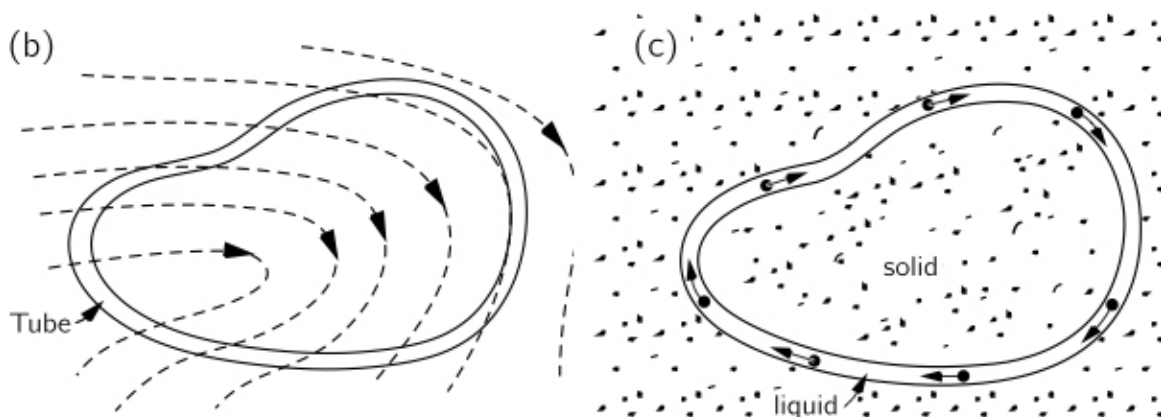
- A central, informative point, seed, or o-point that gauges energy and information, connected to a membrane or time cycle...

- That encloses an open, entropic field of lineal motions-distances that displaces the system.

This seemingly simple structure, however has infinite variations and 'biased deformations' from each point of view and language. So in science we shall always observe the complexity of the details of each variety of the ternary 'organism', and specially the enormous inflationary number of 'linguistic mirrors' that reflect and deform this vision creating particle subjective Worlds out of objective uniformity of reality.

The next graph is a synopsis of the 3 fundamental elements that structure the Universe: the bidimensional topologies of spherical heads/particles, which assemble with planar toroid fields/limbs, forming together organic body/waves. And this simple structure is obeyed by all systems of the Universe. There is no particle without an associated wave (quantum complementarity), and there is no living organism without head. On the other hand, those systems extend across several planes of different size and time speed, synchronized by complex organic relationships.

Consider for example the laws of electromagnetic fields:



We define a quantity called the circulation as the resulting speed of the liquid in the tube times its circumference. We can again extend our ideas and define the "circulation" for any

vector field (even when there isn't anything moving). For any vector field the circulation around any imagined closed curve is defined as the average tangential component of the vector (in a consistent sense) multiplied by the circumference of the loop. And as Feynman puts it: "With just these two ideas—flux and circulation—we can describe all the laws of electricity and magnetism at once."

But then again, in biology we can describe in time the birth of life as a process of creation of membranes holding a field of carbohydrates.

And finally in both, field theory and biology we will find a central point of view, the charge or the DNA will appear, accelerating the informative process of evolution of the system.

Thus the approach of the philosopher of science to the Unification of all systems, is one that includes together the 6 motions of time of Aristotle, its cyclical patterns of generation, evolution, growth, diminution and extinction, along a 5<sup>th</sup> dimension of relative sizes and speeds; and of course, the 6<sup>th</sup> motion or Locomotion, in lineal space, which however will turn to be the less important for 'meaning' of all of them.

This is what the Universe is all about, and the only difference is the jargon each science uses to describe it. Do NOT think that because physicists speak mathematics, biology, genetics and evolution, societies religion and politics, economists money, they ARE describing different things.

Now if we were to speak the most beautiful of all those jargons, as it is the language of all those beings, Non-Euclidean, Non-Aristotelian i-logic mathematics, the needed upgraded 2300 years overdue of the sciences of logic and mathematics that will allow all those of you who are NOT only 'selfies', self-centered life cycles and can take the necessary bashing of all your 'beliefs' to relief your slavery to childish thoughts, we

would define those 3 elements as the ‘only 3 topologies of the Universe’ and write a Generator Equation in terms of topological geometries:

$|-Toroid\ limbs/fields > \emptyset-Hyperbolic\ body/waves < O-$   
*Informative particles-heads*

This simple topological equation defines how the 3 parts of all beings are constructed. And remember if you are a mathematical physicist that the universe has no more topological forms than those 3. So all what exists will be a ‘diffeomorphic’=local assembly of those 3 topological parts. And you just need to fill the names of that geometrical template. An atom will have a O-nucleus, an |-electrons and a  $\emptyset$ -hyperbolic body-wave of neutrino, gravitational and  $\Upsilon$ -electromagnetic waves between them.

This simple statement ‘enlightens’ your understanding of an atom and a galaxy and completes 100 years of quantum physics and relativity. Take it or leave it.

I shall prove ad nauseam, as ‘master ludi’ of all languages and sciences that NOT a single science escapes the ternary symmetries defined by the Fractal Generator of the 5D space-time Universe and its structure. But you WILL likely deny all those proofs. Since man is not alien to the paradoxical equation of the mind:

‘Infinitesimal self-centered O-Point  $\times \infty$  cycles of space-time’ =  
 $0 \times \infty = C$ -onstant Linguistic Mind mapping of the Universe’.

But how can we differentiate forms and motions. What are a form and a motion? The answer is that all has form and motion *at the same time. Motion is the objective reality, Form is the still perception created by a mind. So the Universe is about motions, the worlds of the mind about forms. Reality is about motion, knowledge about form. Reality is made of time cycles*

*and lineal motions, mind about forms created with time cycles and dimensional distances, created with minds.*

*And this is what Galileo discovered but never understood, as he was just an artillery master. It is the Principle of Relativity, which is at the core of all physical, scientific laws, but we shall call the Galilean paradox, because Physicists, from Galileo to Einstein, were aware of it, founded their science on it, but have never quite fully grasped it.*

Now, a pause. Let us be clear enough, philosophers of science love physics, how couldn't be otherwise.

Physics is the Universe in *its entire description through its 6 motions of time*, in its whole and its parts, with all the properties, organic, mathematical≈mental and inorganic, derived from those 6 motions, even if we are aware of the shortcomings of lineal physicists, with its obsession for locomotions and the ego-trips of their human mind, so often as the case of Kepler, Newton and the authors of the big-bang 'polluted' by the lineal concept of time of Abrahamic, anthropomorphic religions.

Descartes was also a physicist, besides a mathematician, and a philosopher. It is though important to distinguish between 'physics', the universe in its full description, which we shall call as part of T.Æ, Astrœ-physics (-; and 'physicists', the lineal point of view of the world of artillery masters and Abrahamic Believers – which IS *culture* not science, as it reduces physics to locomotion.

We shall therefore study here as a philosopher of science, in the full tradition of the word, astrœ-physics and if this post is found in the larger web on the full T.Æ, all other sciences with the 6 motions.

This said it is obvious that today the philosopher of science has



no dictum, and his wider view is ignored. Moreover, as the physicist bullied its limited view with artillery masters, and the parallel inquisitions of Abrahamic religions and anthropomorphic beliefs kept imposing its lineal vision of Nature over that of Darwin and Evolution, the philosopher of science reduced its inquire to what today we study in philosophy of science – the scientific method, which is ONLY the first step of T.Æ.

We thus regain with our work, the true purpose of philosophy of science, which was carried about by Aristotle, Descartes, Leibniz, Darwin and Hegel (and its disciples in social sciences, Marx, Kondratieff, Spengler, and finally the practitioners of systems sciences and theory of information, albeit poisoned by the lineal concepts of Physics – Shannon’s definition of information as lineal messages, etc.)

Unfortunately the limits of inquiring only lineal time motions to explain the meaning of it all, amounts to a constant deformation of reality similar to that of the Abrahamic cults or the Ptolemaic use of the Earth as the center of the Universe.

Yet those limits are today ignored, by the imposition mainly through the power of technology and the propaganda of those who create machines and weapons as the ‘seers’ of time (the old definition of Augustine of ‘God’) of a reductionist view of lineal motion as all what is worth to know about times.

So of course, it is necessary to make also ethic statements on the worldly profession of physicists –to make weapons of lineal energetic motions – to account for many of its theories of time – in fact all of them, Galilean’s artillery motions; Clausius, entropic, steam-machine motions and Gamow’s, big bomb bang theory of the Universe. This is a topic, but *topics exist because they carry truths, and they endure when censorship of their truths oblige them to become topics.*

Since clocks carry the information of the Universe in its form and frequency, we can then talk of two inverse arrows of time: information increases when we look downwards on those scales as in fractals, but size and speed grows when we go upwards. This 'non-commutative' asymmetric direction of spacetime is the key to most mysteries of the Universe. For example, since information flows freely from down to up scales, there are genetics (information flows from smaller systems) but there is no Lamarckian evolution, (the whole does not inform the parts).

On the other hand, since motion flows freely from up to down sizes, we can move the hand and everything smaller within it moves in perfect harmony, but the other way around there is a waste of motion called 'entropy' that does not flow upwards. The existence of such clear cut directions of time and the co-invariance in 'families of systems' of the product of its size and the speed of time clocks, (metabolic animals, particles, orbital planets, etc.), allow to create a 'metrics' of the 5th dimension; that is, a series of rules which dictate how systems 'travel', in 'size' and 'speed', as they grow and evolve, live and die through that 5th dimension.

Life for example is born as a fast seminal particle, with high metabolic rates, which emerges from the microscopic, cellular state, into a 'Universal plane' of larger size, at birth. Then the system goes through life, with changes in its relative energy and information and dies back to the lower 'plane' of cells. Yet those phases of a life-death cycle are the same in any physical or biological system, since they follow the same simple metrics of the 5th dimension, and the laws of a 'cycle of time' that always ends in its point of initiation.

For example a star is born out of a 'seminal cloud' of atoms that collapse its energy into the form of a vortex of matter, a galaxy that will feed a denser black hole and finally die into a quasar explosion that will return the energy to the universe. So

energy never dies but transforms into form, into information back and forth in life-death cycle for all species. Moreover, all systems start with a lot of energy, which becomes form, information, from gas to solid state, from a young energetic age to an old, informative one. And this is a simple law of all time cycles that 'curve space into time' (Einstein).

Thus if you consider the past, the lower planes of the 5th dimension, the future, the wholes, the time 'worldcycle' of life and death, the creation and destruction of those wholes from parts (it is no longer a worldline as in physics but a worldcycle as we have added this 5th dimension from past to future), we do have a clear cut order, and organization of the Universe, through the new 5th dimension and the new worldcycles of life and death (no longer worldlines), which is an enormous expansion of the principles of science, and a complete reorganization of all sciences and species, with new global laws, that deeply enlighten our comprehension of the ultimate phenomena of reality. Now it should be obvious to the reader that the 5th dimension is a dimension of time, of motion and as such it must be a dimension that moves from past to future or future to past.

It is interesting to remember the founding fathers of science, which ARE NOT the Mechanists of the XVII century but the Greeks who understood it all:

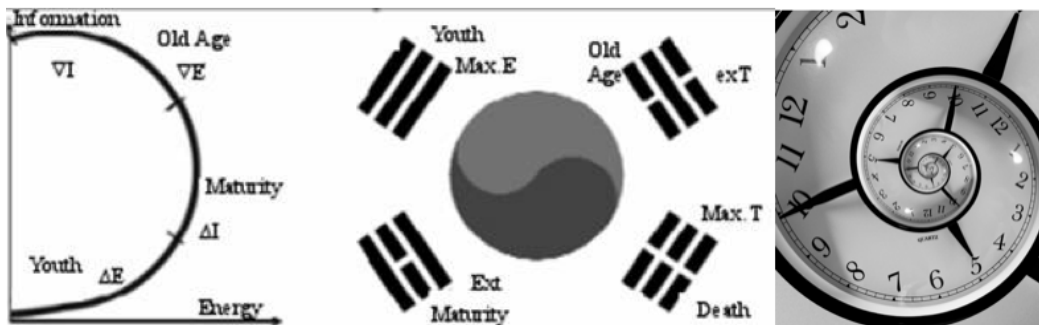
- Democritus said the Universe was made of atoms, and atoms had 2 qualities 'MOTION AND FORM'. Yes, he didn't see them so he went straight to the philosophical essence. This, Plato understood. And he divided motion into 'biological motion or internal change' and physical motion or external locomotion. He understood.

- Aristotle, the highest mind of the western decoupling, only comparable to Leibniz, went into detail and classified motions into 6 types, and it is worth to mention:

- Motions in lineal space, or locomotions, the only one physicists study.
- Motions in a time cycle, divided into 'conception and birth', change of state (internal form or quality motion) and extinction, dissolution.
- Motions in the 5<sup>th</sup> dimension, which he divided into growth and diminution or 'motions of quantity'.

He understood without the need of telescopes and microscopes the essence of the Universe.

Yet if we consider a simple graph of those ages in terms of yin-information (broken, warped forms) and energy, yang (continuous lines), we will easily realize that the same knowledge was already in the Chinese-Korean traditional culture:



The graph shows in the left the half-wave cycle of existence of all beings, with its final 'cut-off' back to the beginning in the moment of death - without a Present middle age.

So they are the ages, of Max spatial energy or youth, mature balance,  $E=T$  and old informative age of maximal temporal information after which a system dies away in a big-bang explosion or dissolution in the moment of death. In the right the Eastern Taoist symbolic interpretation of those phases

Unfortunately the 3<sup>rd</sup> age of time, and the whole time cycle

must be considered an accelerated vortex, not a fixed steady state cycle. This small difference understood by Einstein which studied the laws of General Relativity and mass-cycles as accelerated vortices, and non-linear geometries, are the key to fully grasp, those 3 arrows of time-life as a growing process of information, which ends uncoiling the 'clock' in death.

The spiral of time is thus an spiral towards a centre of maximal information, accelerated inwards. In physics it is the non-linear equations of Einstein's general relativity and charges, moving inwards, till in the 0-point, in the event horizon, the being 'explodes its form, dividing its 2 fields', Sp & Tf. Then the Sp-entropic field is absorbed and the Tf is spit off, as the Universe does conserve energy but it does NOT conserve information, the ego, the world paradox, which constantly is renewed and repeated - its conservation is in the long term, but not in any specific form. Themes those of deep consequences at all levels.

## **CONSERVATION LAWS - THE ETERNAL PRESENT**

### **CLAUSIUS VS. THE UNIVERSE.**

'The Universe is dying' Clausius, 'inventor' of the thermodynamic arrow of time.

### **The conservation of ST-presents.**

The Universe conserves the 'present', SxT product of both, at the point in which they are closer in harmony with similar value - in mathematical terms, the Universe minimises the Lagrangian function, at the point in which S=T, Potential energy = Kinetic energy, angular=linear momentum, male=female, thus where the 3 elements that compose it, Sp < ST > Tf reach its harmony.

The conservation laws of the Universe can be resumed in the

conservation of the total  $Sp < ST > Tf$  reality and its ternary symmetries across space, time and the 5th dimension. So angular and lineal,  $Sp$  and  $Tf$  momentum is conserved, and its larger, 5D vision as integrated planes of systems or energy and information (kinetic and potential energy) is conserved. And the number of particles and antiparticles, or life and death states of a world cycle is conserved. Yet because  $Sp$  and  $Tf$  are relative past and future arrows merged into  $ST$ -waves-bodies of present, which constantly iterate its forms, actually all reduces to the conservation of  $ST$  dual fields. Present Fields. We do exist always in present.

Thus all starts with a simple philosophical statement: *'The Universe exists constantly in present'*.

This seemingly simple statement, is a powerful instrument as soon as we realise that the present,  $ST$ , is a bidimensional system with a parameter of a dimension of relative space-frm and time-motion, or  $O-x \mid = \emptyset$ , that is an event which is creative.

The study of the Function of present,  $Sp_{ast}$ ,  $x Tf_{future} = \emptyset$ -Present, a Constant of existence, which 'exists' in one of the scales of the 10th dimension 'alone at a time', and the study of other 'simplex dimensional conservations in any  $\Delta$ -Plane of the energy and information,  $Sp$  and  $Tf$ , quanta and infinite continuum vibration in space of two poles, which brome a harmonic oscillator creative event:

$Sp = \infty \times O = \text{Time point} \rightarrow \text{Constant of existence which fluctuates through its differential equations from a lineal function } \partial y \text{ to a full cyclical function, } Dy/dx, \text{ in any of the two possible upwards and downward social dimensions of affine or topological spas.}$

Thus a constant of existence,  $Sp \times Tf = E\Delta_i$ , can be also perceived as a sum of quanta of space, of discrete volume dimensions which are seen as fixed and a seemingly

continuous due to its extreme range of harmonic oscillator functions between 2 poles.

The line then becomes the true 'minimal entity of the Universe', and as such, since lines have breath soon become waves of points, extended also transversally till finally are organised in a different type of vibration, that of a plane.

Which has by definition, *one more dimension and so has points of view, called particles, with a larger gravitational mind of dimensions that the simpler, thermodynamic and electromagnetic,  $j$ ,  $\mu$  and  $h$  quanta.*

So we could say that the mind is gravitational because of the way we perceive geometry operate with eyes, etc. and so it is cold because it makes a reduction of thermodynamic form - hence its gravitational in the scale it measures.

What are the quanta of gravitation? The only known candidate is the neutrino hence, IT IS the neutrino. How to adapt the equations of present mathematical physics is through the Jordan theory of neutrino light in which particles, first exchange along the invisible side of the  $c$ ,  $m$ ,  $t$  barriers, a measure line, invisible but that we know it is there to form the first informative neutrino-gravitational connections.

So we are gravitational beings.

We become then frames of references of mechanics in the equation of the mind which is the equation that truly defines as the relative constant of existence,  $c$ -speed or 0 temperature or  $H$ -planck.

The Universe is immortal in 0-sum time cycles that never end, perfectly anti(symmetric) between the two directions/forms/motions on the extreme of those two cycles, which converge into present, static forms and its infinite-simal

up and down in the 5<sup>th</sup> dimension. And having that on mind we can describe it all.

The main of those laws is the immortality of the Universe, and its dualist formal motions, which are a zero-sum when we put together its antisymmetries of space-time, which conserve together its potential vs. kinetic energy, angular vs. lineal momentum, time vs. space anti-symmetries, across 3  $\Delta\pm 1$  planes of the 5<sup>th</sup> dimension.

This is the 'essence' of it we must grasp. The immortality of the whole is based in the inverse symmetry of its 2 elements: form vs. motion, left vs. right, expansion vs. implosion; lineal, decelerating, expansive stillness vs. accelerating implosive cyclical motion; faster than c speed vs. slower than c speed, positive charge vs. negative charge, particle vs. antiparticle... Positive vs. negative wave sides. opposite genders, a 'male' or 'female' element, which are complementary and fusion in a reproductive present or divide in two opposite fractions.

Thus 5D Physics explains in a much more natural manner what many physicists came to call the group theory disease; that is, the use of the abstract jargons of modern mathematics, without understanding what they truly mean, and what is 'truth' and what is mere mathematics, provoking the present inflation of 'Group transformations and Symmetries'.

Reality is rather simple, and the proper jargon slightly different. There is not a breaking of symmetry as physicists express it but rather the creation of a symmetry of opposite elements, departing from a universal constant, of Present State,  $Sp=Tf$ , an immortal point of balance in any plane of reality, which diverges both sides, to one side of MORE INFORMATION, Max.  $Tf$  and a side of larger spatial energy, as that is the ONLY ternary elements of 5D space-time that might "diverge or converge" in any scale.



In brief, the 3 'standing points' of the e ages of a Worldcycle in time or ternary symmetry in space or  $\Delta\pm 1$  scales of the 5<sup>th</sup> dimension might diverse from present to relative past and future, lineal and cyclical, higher or lower scales and that gives birth to diversity. So we shall first consider in the domain around our local scale, space and time parameters-constants, how those divergences might happen.

So zero systems expand into the negative (past-Sp in our conventional choice) and positive (future, Tf in our choice) relative sides of a constant of symmetry, Sp=Tf, which is expressed by giving birth to two cancelling opposites.

*Coincidentia Oppositorum*, said Nicola da Cusa, the infinitely large and slow, the infinitely small and fast, the 0 and the  $\infty$  which are relative and multiplied give us a constant 'o' for adding operations or 1 for multiplicative inversions, or a Universal constant for logarithmic scales of the 5<sup>th</sup> dimension (log vs. e, ln vs. 10, log2 vs. 2 vs.  $\sqrt{2}$  being the most important of those inversions).

### **The 'Generator' equation of space-time beings and its ternary logic.**

Unfortunately the beats of the universe are difficult to understand because the logic of present man, especially that of physicists seems 'lineal Aristotelian': A causes B.

Reality though is more like the Eastern philosophies of Vishnu-yin-information and Shiva-yang-energy/motion:

$A \Leftrightarrow B$ , that is A and B interact to create a ternary  $\Leftrightarrow$  present element.

Reason why there is conservation of Angular and Lineal Momentum, there is Space and Time, Energy and Information, O-Particles/Heads that store time cycles and

limbs/fields that move them, mixed in bodies and waves that reproduce both of them.

Humans of course, naturally have always expressed this 'Ternary' Structure of the universe.

And so the parallel syntax of the languages of knowledge we use to describe those Universal beings - verbal, mathematical and visual languages - all have the same ternary 'grammar', which I have called the 'Fractal Generator' of the Universe:

Tf (Subject or Function of 'temporal information') < ST:  
action, operandi or verb  $\geq$  Sp (Object of 'spatial energy').

We associate counter-intuitively 'cycles with motion' and 'lines with Still space'.

It has to do a lot with the limiting errors of classic physics, where only lineal inertial motion matters. Fact is big-bang explosion DECELERATE speed till it becomes Still lineal distances and dimensions, that is pure lineal space with no motion or vacuum space (as in any physical big-bang of entropy). While the equation of cyclical vortex, is  $V_0 \times R_0 = K$  (2-manifold, simplest variety), which counter-intuitively accelerates ( $\Delta V$ ) when distance becomes smaller, ( $-\Delta R$ ) to maintain K constant.

Thus clocks, frequencies and vortices accelerate, and have more 'time' content, than lineal motions that decelerate to a halt.

Now, in duality Space was slower, extensive, Sp, Size, and time was faster, cyclical, accelerated (so are its maths). But now in ternary symmetry we have the need to 'extend' the meanings of time and space to the duality of the 3 motions of time and the 3 organic parts of spatial bodies and this makes some confusing choices of terms, such as:

Space will be the still, formal view of reality and Time the motion view. And so we shall talk of 3 'topologies of formal space', and 3 'ages of time motion', which together shape the fundamental duality of reality, the view of organs in simultaneous space and the view of beings living a worldcycle of 3 ages of time:

Sp (limbs-fields)  $\approx$  Young, past, expansive age < ST: Present, repetitive, hyperbolic body-waves, adult reproductive age > Tf (Temporal, future informative, cyclical old age).

Now here the convention I have adopted is to *Use the same symbols for either symmetries, the limb-field <body-wave> head-particle or spatial simultaneous view of an organism in space, and the Young-past-expansive < present-Adult-reproductive> Old-Informative 3 ages of time.*

This is where things seem confusing because the whole thing transmutes. The old age of future time has more information and it is cyclical, properties of time cycles, but it is also slower, property of space decelerating motions. The young expansive age has more motion, a property of time more than space and so on.

But as I have told you B & W and 3 color view are new worlds, and this is the closest way to express past references and correspond with human expression of all this.

A way out to avoid confusions with the ternary symmetry is to use more when dealing with the still, simultaneous spatial view, the 'symbols of geometry-topology, |, O and Ø:

| -Limbs/fields < Ø-waves-bodies > O-Heads/Particles

And the same for time ages with the reference of time motions:

| -young past < Ø-present, reproduction > O-Information,

future, old age.

So it shows the symmetry with the symbols | ,  $\emptyset$ , and O.

If in the future anyone goes through my 30 years of research in all this, they will then find that I profusely use those symbols.

But trust me if you really understand T.Æ which is more a question of mental attitude, the understanding will be clear from the beginning.

### **The generator equation.**

So I wrote the Generator Equation, a symbolic equation that represented all the systems made of fractal space and cyclical time and its space-time combinations, whose geometries ARE the 3 'only' Topologies of the Universe we perceive:

$\Gamma$ . Generator: Toroid Sp(limbs/fields) < Hyperbolic ST(st)  
(repetitive waves-bodies) > Spherical Tf (head Particles)

Since limbs and heads, fields and particles interacted and mixed their lines and cycles into 'conic bodies, and elliptical orbits and hyperbolic waves'.

Or as Cheng-Tzu the Taoist philosopher put it: from 1 (time cycles or Tao), comes 2 (the yang-line of energy and the yin-information, broken line) and from 2 comes 3, and from 3 the infinite beings.

(Asian cultures defined always time as cyclical, without the distortion of lineal physical time, also for cultural reasons we shall soon explain.)

So I could classify all the different space-time beings made with the 3 topological formal motions of the Generator.

Since Nature 'pegs' those 3 forms & functions, which put together create the underlying structure of all systems of reality, both physical and biological, as all combined the ternary elements of the generator equation, either in sequential time orders (entropic youth, reproductive maturity, 3rd informative old age) or simultaneous, spatial organisms.

Yet that is always a simultaneous organic construction, or rather superorganjc, as it is made of smaller beings which are also super organisms, controlled by the central point of view-network, the elliptic 'sub-system' of information that controls it all, in the  $3 \times 3 + 0$  decametric structure of all systems. So in the 10 sub-systems of the human super organism, it is the brain, the 10th element; in a 10 military system will be the sergeant, the captain, the general of each 10, 100, 1000 scalar levels. And in a simple tetraktys, similar to the billiard triangle, the central dark ball which coordinates all other balls, by being precisely in the middle, able to communicate with them all and organise the whole system.

### **Symbolism for bidimensional Space & Time.**

**Sp, (|-Spe)** will be a parameter of Size or lineal, planar space when perceived in stillness, or entropy (also denoted in mathematical physics by the symbol **S**) defined as an expansive, decelerating motion, when perceived dynamically – which increases the 'space' or res extensa of the system, decelerating to a halt.

In geometry space is a Space Plane, a bidimensional geometry, such as  $h$  (bivector of angular momentum) or  $c^2$ .

In its complete description sometimes we should write  $|-Spe$ , for Lineal motion-form, Space Plane, Past, Entropy and Energy arrows, when *considering the 5 fundamental perspectives, or isomorphic laws encoded on the bidimensional space elements*

*of the Universe:*

*To be lineal, toroid in mental, geometrical form (|); to be 'Space, res extensa'; to be a 'bidimensional flat plane', to be the Past, dead arrow, hence to be entropic disordered motions in terms of functions and motions through the 5<sup>th</sup> dimension, and to be 'kinetic energy' in the Present ST-plane.*

- **Tf** will be a parameter of cyclical time, which increases its cyclical speed as it becomes smaller. The full name would be 'Tifo', from those 5 perspectives, as Time cycles are 'Ti-me', 'i-n-f-o-r-mation' from the perspective of its fixed form and transference through the 5<sup>th</sup> dimension; future, old age, from the perspective of the worldcycle view – as the last age before entropic death, and o in its cyclical clock-like vortex form.

In geometry is a cyclical imaginary number that grows in the height dimension, 'sucking in' and therefore shortening by an inverse  $i=-x^2$ , quantity.

And we know there exists as social numbers (point planes and networks of the 5<sup>th</sup> dimension) do have this form. So imaginary numbers so called complex numbers have an i-sucking, negative diminishing X-dimension, of height that forms the temporal cycles, which are for that reason better expressed in exponential numbers,  $E \ominus i$ , whereas the number is elevated to the angular i conjugate.

So the reader must see sometimes, specially in non-corrected old graphs, any of those combinations – the most likely an E for Entropy/kinetic energy for Space and an I, for informative Time. And its combinations  $ExI$ , as symbol of present:

- **ST**, will therefore be preSenT. We shall write it also as, **ExI**, since the present is dynamic and outside fundamental physics and Geometry in biological and social sciences, people use the concept Energy and Information most often with a wider, loose

meaning similar to the two fundamental elements of reality. Then we can write:

ExI(st) as the function of existence in present time, which IS THE QUANTITY the Universe conserves, 'Present'. Or:

STœ; in which the 3 elements of all beings, its spatial territories (the closest of which are its limbs and bodies), its temporal functions and cycles, and its point of view are present. Systems do become extremely complex in their symmetries and relationships to a point it makes difficult to realise what is the whole, and its parts, and what are its forms and functions, but ultimately through the understanding of the 'isomorphic laws' of all of them, based in the ternary properties of reality, they can be analysed in full.

Now, while we will use the terms energy and information in a verbal mode on social and biological sciences, in astœophysics, we prefer to use the mathematical concept of Energy, which we shall call Energetic Information, as the parameter of the 5th dimension that 'integrates the whole' constant Tf and Sp volume of a system, to equal it with the mathematical formulae, as in  $E = h(Sp) \times f(Tf)$  in the quantum scale or  $E = nK(Sp) \times T(Tf)$  in the thermodynamic scale and  $E = 1/2m(Sp) v^2(Tf)$  in the gravitational scale.

### **The layered 3rd and 4th dimensions.**

How those planes of existence build their social planes, of space? Now, there has been much confusion on the meaning of dimensions, since Minkowski grand nonsense in conceptual thought, established departing of its useful mathematical equations of 4-vectors, the concept that time was a dimension of space.

What those 4-vectors show truly is a series of  $Sp = C/Tf$ , and  $Sp = Tf$ , maximal, minimal and steady points of the 3 ages

and symmetries between space and time. Albeit the time 3 ages/motions are integrated into a single lineal time duration and lose most of its meaning. So for each of those 4 vector equations, its fundamental  $S \approx T$  symmetry must be studied departing from space-time symmetries. That's all.

The relationship of time and space in those vectors is thus just one of essential balance and symmetry between the 3 vectorial dimensions of space and the 3 ages of time, sequentially added by duration.

Another expression common to mathematical physics are relations between the fundamental parameter of lineal motion, speed, and cyclical motion, density of a scalar, whose product is the flux of a quantity.

All these equations of dynamics require a specific analysis of which dimensions are seen as dimensions/distances/areas/volumes/membranes/topological forms and which one are seen as time, motions, rotary or lineal or wave-like motion, and so a lot of conceptual analysis on how the human observer quantity a given space-time symmetry and its dimensions/parameters of motion/distance is needed.

Yet there are generic models which allow us to extract clear formulae of combination of motions and forms in the construction of being. The 3rd dimension of pure form or volume, for example is obtained through the layer accumulation of bidimensional, think membranes along a gradient of accelerated time vortices, from relative max.  $S \times \text{Min. T}$  past upper layers to inner ones, as density increases.

This new 'dimension of motion and form', is thus a dual dimension which intersects with the membrane and creates a 4 dimensional 'vector', whereas however it should be considered the existence of two densities of form, the gradient towards the center and zero point and the motions within one of the

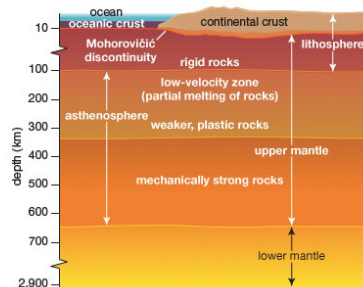
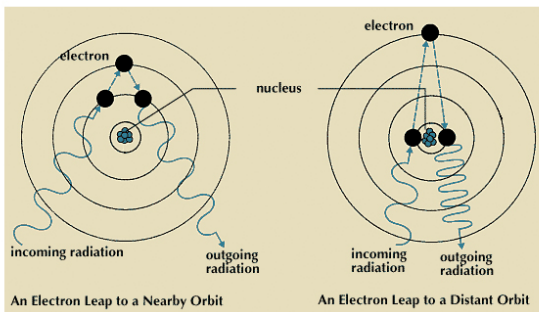
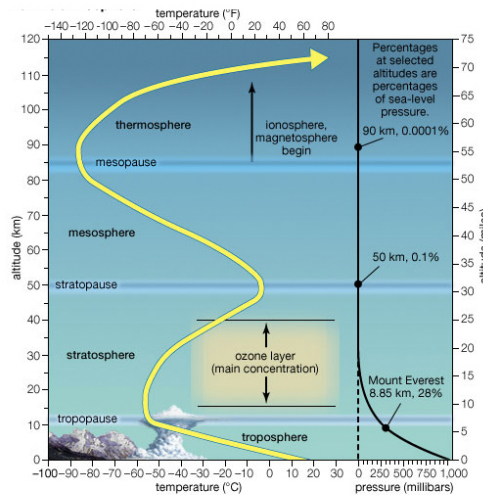
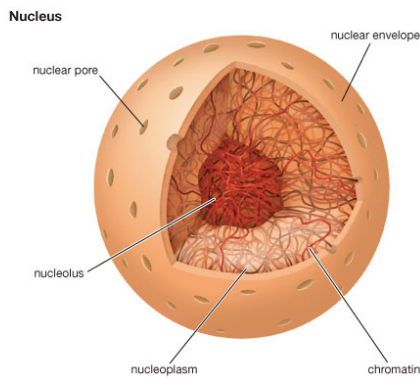


perpendicular, 'normal' layers or planes of space, along the time, integrative gradient direction of the vortex.

4 dimensionality must be seen generally as a holography of space-time bidimensional forms with motion.

We can also consider a 3 fixed form dimensions, the 2 of each layer membrane normal to the dimension of the time vortex, its rotary dimension and gradient dimension.

Now what matter is to observe that any of those diverse formulations of an event in terms of higher form and motion, gradient, curl, divergence or any multiple vectorial spatial or time tensor equation to describe the event and form on space-time can be reduced to an interplay of motions of time dimensions and space forms along the rules of 5D,  $\mathbb{C}$ ,  $\mathbb{A}$ , non-Euclidean geometry, existential algebra and 5D metric.



In the graph we see how new dimensions are added by adding 2-manifold layers which create the '3<sup>rd</sup> dimension of depth, gradient, and hierarchy between those layers, established in equipotential surfaces of similar value, which in detail appear as relative 'planes' of minimal curvature, as we saw the Earth for millennia.

Now the growth of planes of existence has in its simplest mathematical meaning an obvious limit:

it grows in pairs, often of space-time (complex plane of binary numbers), or by superposition in the Cartesian-hyperbolic Plane, of weaves and present space-time systems, of SS combinations, or in a polar plane for TT combinations.

So the Planes of bidimensional numbers permit bidimensional forms, but THERE ARE NOT TRIdimensional numbers. The next level is the plane of quaternions, 'OBVIOUSLY MOVING IN THE 5TH DIMENSION' as it is not-commutative as motions in 4 dimensions are.

So we have a simple guide for the first steps of construction of worlds: to know that numbers are social groups of any kind of points, growing in the fifth dimension, and to know that the complex plane is a space-time plane, where the angular frequency mounting the plane of space, sucks in as it does on the negative square part of it.

We can in that case consider the geometry of Einstein, where time rest  $-c^2t^2$ , considering time 'i',  $-c^2x^2 = +c^2t^2$ .

Thus what the Einstein metrics write really is:  
 $ds^2 = x^2 + y^2 + z^2 + c^2t^2$ , that is 'speed not time'.

The description of this complex plane of a space-time 4 dimensional system can be done also with quaternions as a single block, but it is hardly needed, as what humans are more

interested on in the exchange of relative energy and information, loose terms in the verbal mode for spatial energy, or lineal planar motions and cyclical, repetitive harmonic oscillators of information, cyclical motions, hence created at least with 2 points (as 2 points in the postulate of geometry of the cycle suffice to create one).

In the graph, we can understand better the meaning of a bidimensional Universe in which the 3<sup>rd</sup> dimension is made by a sum of bidimensional layers where the relative  $X \approx Z \gg Y$  structure extends over an equipotential 'democratic' surface clone 'œ-points'. Then the gradient of a given force or flow of information structure them in the 'hierarchical dimension', normally of Height, where the 'strongest', energetic point is in the lower center and inversely, the highest informative, most perceptive observer point in the upper layer.

So on Earth, the outer membrane or continental crust hosts its highest informative points, human heads, while the center stores the most energetic=massive atoms, an iron core, probably seeded of high density uranium-lead crystals.

The bidimensional structure is common to all systems, which have an outer thin membrane that breaks the inner vital space and outer Universe. It is not however an absolute concept, as there is always a gradient which allows transfers between layers or social classes, but this osmosis that transfers momentum between them normally is far thinner, slower than the communication between atoms-particles-heads of the same layers.

And so changes of layer membranes require an existential ST effort, either an increase of energy or information (in the inverse gradient of both formal motions). This case is illustrated by the electron 'plane waves' which constantly vibrate around the atom (Schrodinger's equation), but can change layer by an Energy impulse.

Thus in this manner the Universe adds a 3<sup>rd</sup> dimension of depth that gives volume to a bidimensional system, and also new forms of motion, which the classic model of physics group all together into the concept of the 5<sup>th</sup> dimension.

Dimensions grow as systems grow and multiply. So paraphrasing cheng-tzu, the Chinese philosopher, from one, Tao, 'time motions' comes 2 'space forms and time motions', yin and yang, space lines and cyclical forms' and from 2 comes 3 varieties of space-time, which give birth to the infinite beings of the Universe.

### The 5<sup>th</sup> dimension.



*Can we classify those ST actions according to their form and purpose? Yes we can. The 3<sup>rd</sup> element of T.OE, the 5<sup>th</sup> dimension orders the different speeds of time clocks and sizes of the Universe. Its metric allows us to order all those lineal and cyclical space-time 'formal motions'.*

Since bigger systems (galaxy) run slower than smaller systems (DNA) which carry more information, but both are invariant together,  $Sp \times Tf = C$ .

And this invariance is the origin of the order and structure and co-existence of all those different systems of the Universe, as the growth in size is balanced by the loss of information and vice versa.

## **5D Metric: co-invariance of size and time speed - the generator equation: $Sp \times Tf = C$**

Thus, the third element of T.Æ is the understanding of the fractal structure of space-time, divided into infinite scales of relative size and speed of information, which are inverse but co-invariant, meaning that smaller beings run faster its clocks of information, coding larger beings (so genetics codes biological systems and quantum numbers material systems), whole larger beings move slower but can synchronize with its huge bodies a myriad of little beings (so the Earth guides the evolution of the information of its beings, with its weather cycles of energy and the black hole guides the informative vortex of stars and planets towards its centers with its gravitational waves).

In the graph we see the fundamental 3 scales of reality, the gravitational slower scale the human thermodynamic scale and the atomic, genetic scale.

This 5<sup>th</sup> dimension and its formal metric are the key to fully understand the organic structure of the Universe, as the 3 'canonical scales' of all superorganisms of reality, physical and biological systems extending through  $\Delta \pm 1$  scales of the 5<sup>th</sup> dimension (ab. $\Delta$ ), the quantum-cellular  $\Delta - 1$  plane, the  $\Delta$  individual/thermodynamic plane and the  $\Delta + 1$  organic, gravitational planes.

The fifth dimension orders all those scales of size and speeds of clocks into a 'metric system' able to explain all kind of 'motions' and 'actions' that take place in isomorphic ways in all those systems.

This definition, when translated to mathematical physics, coupled with the Principle of Relativity as defined by Poincare-Einstein, 'we cannot distinguish motion from stillness' will allow us to derive all the laws of Physics; but it has the

advantage that can be applied to all other sciences, to define all the laws of knowledge.

Indeed, what we have just described logically IS not only the fundamental particle of physics, but the fundamental entity of any biological, social system – the key to the unification and understanding of the Universe, as a whole and all its parts, self-centered entities of time-space that put together create the puzzle of the Universe.

Since any cycle has the logic properties of repetition, which are the origin of the patterns, we call ‘science’, whose completion breaks space into an outer world and an inner ‘vital space’, whose ‘gradient center’ is the ‘point of view’ of the system that gauges the external information of the cycle.

As such the understanding of the time cycle, its interaction with its vital space and central point, and its synchronization and social evolution with other time cycles into larger wholes, which structure a ‘5<sup>th</sup> dimension’ of scales of space-time (so particles become part of atoms, surrounded by electronic cycles, which become part of molecules, surrounded by thermodynamic cycles, which become part of masses, surrounded by cyclical gravitational fields; and the same process brings DNA-cells surrounded by protein membranes, with a vital cytoplasm space between them.

And yet those cells, then become the internal vital space of a larger whole, your organism, surrounded by a membrane of multiple life cycles, your sensorial skin, which has once more a self-centered point of view (frame of reference in mathematical physics), called your brain that gauges energy and information. And yet again, from the upper scale of relative ‘sizes’ that we call generically the 5<sup>th</sup> dimension, you are just a moving, open, ‘free’ individual, however enclosed by a membrane called a ‘frontier’, part of a vital territory called a nation, with a self-centered point of view, called a capital and a president, king or

dictator, or in capitalist societies a 'stock-market', which controls the system and gauges its energy and information.

But in the same manner cyclical time and fractal space applies to all systems of all sciences, the 5<sup>th</sup> dimension and its metric apply unlike 'physical concepts of space-time', such as c-speed deformations of time essential to 4D metric, to all systems NOT only far removed scales of physical time.

5D metric can explain from faster metabolic rates in smaller animals, with faster time cycles; to faster information processing in smaller chips with faster time cycles (Moore's Law), or faster rotary options in smaller masses which have paradoxically faster rotary, attraction properties (rotating Black holes and quarks).

What it will be difficult for this writer after 20 years of exploring all the possibilities of this TCE, and the immense number of questions resolved by it, is to 'organize' all that new knowledge in a manner that the reader does not get lost, due to its 'encyclopedic extension'. Tf that aim when this blog is partially finished sometime during 2016, if he follows the top sentences, all should make sense.

Thus we shall try to give a general look to this TCE in this first post, studying its 3 main elements: 'Still, lineal, slow spaces', 'fast, cyclical time vortices' and the 5th dimension which organizes them through the co-invariance of spatial size and time speed,  $Sp \times Tf = K$ .

So we talk of a 'fifth dimension' of scales, which has a hyperbolic geometry with the lineal limit of quantum physics and the cyclical limit of cosmological gravitations, along which an infinite number of time cycles enclosing vital spaces, exist, in an orderly fashion provided by the metric of the 5th dimension.

## 10 logarithmic scales.

To notice that the 5th dimension is based on 10 logarithms because the 'Tetraktys' is the most perfect group of  $3 \times 3 + 0$  elements, which become specialised in the 'Sp-energetic, Tf-informative and ST-reproductive, iterative functions of the 'Program of survival' of all systems, which will be made clear latter on, when we analysed the world cycles of time and the ternary Generator equation in space and time, of the fractal Universe.

You have to be a bit patient, as we have first to ground all this in some basic mathematics. Thus between 2 such scales of the 5th dimension we shall always find around  $10^{11}$  elements - the ties of a DNA molecule, the stars of our galaxy, the cells of a super organism, the galaxies of the perceived Universe, and between the Universal Constants of Space, we will find the same differences, the energetic value between the H-planck constant of Tf in the  $\Delta-1$  quantum scale and the k-Boltzmann constant of the  $\Delta$ -Thermodynamic, human scale; and then the  $\mu$ -magnetic scale and so on.

So this said, the 5<sup>th</sup> dimension is in the holes of the real numbers each of its decametric decimal a lower scale of the 5<sup>th</sup> dimension. Yet as usual those numbers should be really cut every 10 'decimals, because then we enter into another scale where anyway the values of constants such as Pi, and  $\sqrt{2}$  vary as Lobachevski's proved.

This is made clear just by revising a simple number, e, but a key number for the derivative, proportional emergence or descend between scales, approximately 2.718281828. to the 9<sup>th</sup> decimal. The reader will observe that actually those 10 numbers form a simple series, 2.7 18 28 18 28 repetitive in extreme (except the first decimal missed by one to make it a perfect 28-18 variation, but after the 10<sup>th</sup> decimal it breaks, with 2.7 18 28 18 28 45904 etc. That is, the equivalent to the



loss of meaning and yet one more of the so many proofs I have found of the existence of the 5<sup>th</sup> dimension, its geometries, algebras, and mind forms, circular membranes, points of view and ternary organic parts.

Indeed,  $e^{x/n} = [(1+1/n)^n]^x$  is the only derivative which is proportional to the same number, since if we take 1 the whole and  $n$ , one of its finitesimal parts, in space, a quanta, and then repeat this growth of diminution an  $n$  number of time, and an  $x$  number of social scales of the 5<sup>th</sup> dimension, we shall find the emergence processes or dissolution  $\approx$  death processes of most systems of the Universe.

The quantitative scales however always yield in its meaning to the functions, and ternary symmetries we shall discover that make possible the existence of all systems as combinations of 3 'scales of the 5th dimension' (quantum-cellular, thermodynamic-organic, gravitational-social), 3 synchronous topologies and 3 diachronic ages, so we soon will write the Generator Equation of Space-time Beings:

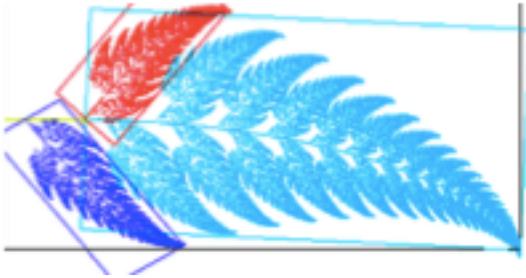
$\Gamma. \Delta-1: Sp$  (young-past-entropic limb/field)  $\leq \geq \Delta:ST$  (iterative, adult, present wave-particle)  $\leq \geq \Delta+1: Tf$  (future, informative head/particle)

This simple structure and all its fractal variations is essentially the description of any World-system, whose sum creates the Universe:  $U = \sum W$

Relational space-times thus have the key word 'relational', which merely means we need a 'metric system' to order and relate all those space-time cycles of the Universe.

And this is the 5<sup>th</sup> dimension of the Universe: the metric laws that put and order, RELATE to each other all the time-space cycles of the Universe, of which we are all made.

## Fractal space and renormalization.



Now the question of renormalisation has been in science for ever. It shows that we can add from the other clocks of time of other scales of the physical 5th dimension, 'power quantities' that add to the scale in which we are.

In total we talk of 3 x 3 sub-fractal scales with common quanta ( $\Delta-1$  quantum scale:  $h$  planck,  $\Delta$ -scale:  $k$  &  $R$ ;  $\Delta+1$  scale:  $\mu$  &  $c$ ).

5D space-time cycles means basically that reality is a fractal. This means all is self-similar, 'affine', fractal, isomorphic, self-similar words. And so somehow all can be described with similar properties under 'transformations'. For example:

An image of a fern-like fractal that exhibits affine self-similarity. Each of the leaves of the fern is related to each other leaf by an affine transformation. For instance, the red leaf can be transformed into both the small dark blue leaf and the large light blue leaf by a combination of reflection, rotation, scaling, and translation.

Those 4 operations are the essence of physical studies of material fractal systems. The methodology of physics consists in studying systems that are 'invariant' under rotation or time motion, scaling or 5D motion, and translation or space motion and reflection or Space-time motion.

However NOT all systems are invariant under those processes, in 5D physics there are 'antisymmetries' of time (from birth to

extinction, which are inverse actions) and hence asymmetries in space (as the 3 elements, Sp, ST (ST) and Tf are different topologies). And in 5D there are 'reversal roles on motions upwards and downward, so similarities happen, when we jump two scales.

So physicists ran into infinities because they could not accept fractals. For 80 years, they found an infinity in an equation and just got rid of them!

The early formulators of QED and other quantum field theories were, as a rule, dissatisfied with this state of affairs. It seemed illegitimate to do something tantamount to subtracting infinities from infinities to get finite answers.

Freeman Dyson argued that these infinities are of a basic nature and cannot be eliminated.

Dirac's criticism was the persistent:

'Most physicists are very satisfied with the situation. They say: 'Quantum electrodynamics is a good theory and we do not have to worry about it any more.' I must say that I am very dissatisfied with the situation, because this so-called 'good theory' does involve neglecting infinities, which appear in its equations, neglecting them in an arbitrary way. This is just not sensible mathematics.

Feynman wrote: Having to resort to such hocus-pocus has prevented us from proving that the theory of quantum electrodynamics is mathematically self-consistent. I suspect that renormalization is not mathematically legitimate.

Today they found a 'fractal philosophy' to accept getting rid of infinities, which ARE scalar 'finitesimal' numbers of an  $\Delta$ -n scale. Today, the point of view has shifted: on the basis of the breakthrough renormalization group insights of Kenneth

Wilson, the focus is on variation of physical quantities across contiguous scales, while distant scales are related to each other through "effective" descriptions. *All scales* are linked in a broadly systematic way, and the actual physics pertinent to each is extracted with the suitable specific computational techniques appropriate for each.

Thus, one of the immediate consequences of the formalism of 5D cyclical time and fractal space is to set the record straight on physics and its ill understood 3 modern 'ideas of time'. They are further understood in terms of the arrows of future-information, past-entropy and present-reproduction and its infinite fractal cycles in 5D metric.

Next in the graph a summary of the fundamental elements of the Universe of fractal space-time cycles. On the left the 3 elements that structure the Universe, its cyclical Tf forms (membranes and points of view), which enclosed a body-limb system of vital space that moves and reproduces the system. Below the scales of the 5th dimension, in which we always will find those 2 elements.

Spheric particle-head:

To:  $\text{Mind} = \text{Minimum Energy-Space, Max information-time.}$  X

Se: **Planar-Toroid Fields/limbs:**  
Maximum Energy-Space  
Minimum information

**UNIVERSAL ORGANISM : Hyperbolic Body-wave:STI**

**Macrocosms U=9**

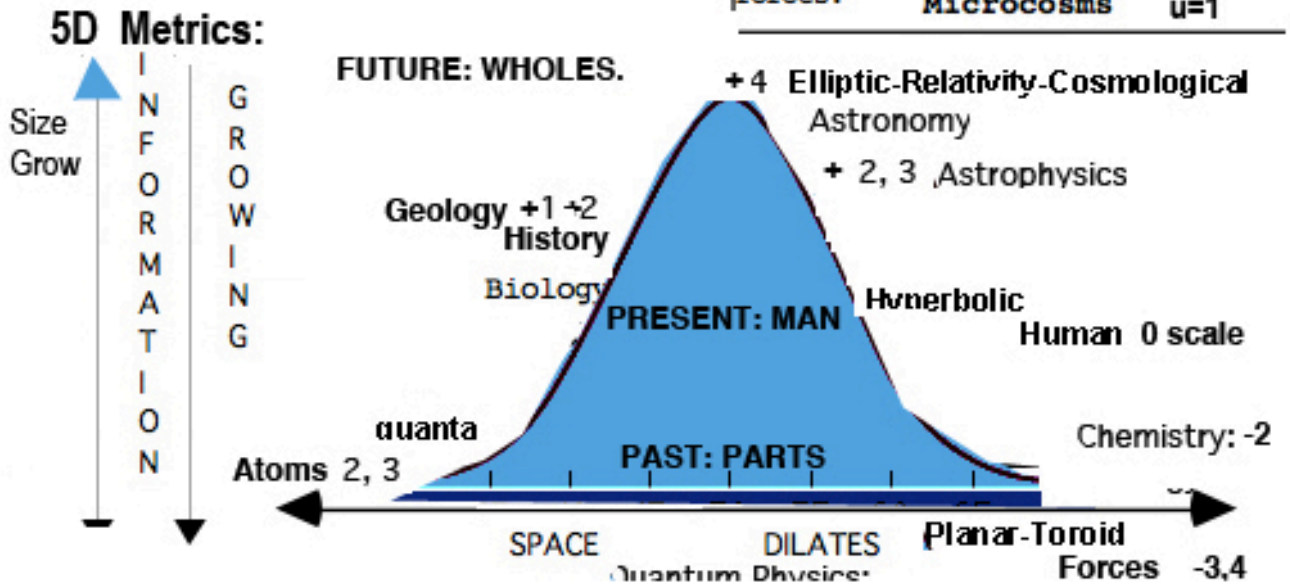
Galaxy=Black Hole+Herd of stars  
Economy:Digital Information+Herds of Machines.  
History=Wor[ld] Religion+Herd of Men

Relative Small Observer: Man

**Relative Big Observer: Man u=5**

Animal=Light-Brain+Herds of cells.  
Cell=DNA+Herds of Carbohydrates  
Molecule:Herds of Atoms+ Electronic forces.  
Atom: Herd of Nucleons and Electrons, communicated by gravitational and  $\Psi$  forces.

**Microcosms u=1**



The Universe conserves the 'present',  $S \times T$  product of both, at the point in which they are closer in harmony with similar value - in mathematical terms, the Universe minimises the Lagrangian function, at the point in which  $S=T$ , Potential energy = Kinetic energy, angular=lineal momentum, male=female, thus where the 3 elements that compose it,  $S_p < ST > T_f$  reach its harmony.

### III.

## GENERATOR EQUATION: STIENCES

In STience we shall find a given constant of space-time, normally of the form of ration,  $Tf/Sp$ , or density of time, and its inverse, density of space,  $SP/Tf$ , which in different scales of reality will have a different name - in physical sciences 'geometrical curvature', temperature-frequency-speed (the time clocks of its 3 scales of  $\Delta-1$  quantum,  $\Delta$ -thermodynamic and  $\Delta+1$  gravitational scales).

To that aim we describe with simple symmetric equations of the motions of time:

- Growth in time:  $>$ , in space:  $<$ , together,  $Sp \times Tf$  (Max  $Sp=Tf$ )... And departing from those simple relationships build a generator ternary equation of time arrows, from past to future,  $Sp \geq Tf$ , and Future to Past,  $Tf < Sp$ , which are inverse and non commutative, as the  $Sp > Tf$  arrow of life lasts longer in time, through a series of self-reproductive adult age presents, which the Future to Past arrow of death at the end of the world cycle,  $Tf < Sp$ , without present, lack.

•

### **Temporal $\neg \mathcal{A}$ Algebra. The Generator Equation of the Universe.**

Now geometry is the simplest description of reality. The next scale is Algebra, where the unit is the social number (not the imagined set), which does have as Pythagoras clearly understood 'geometric forms' (hence it would be much better explained in a bidimensional plane - reason why 'bidimensional numbers', are so useful). To the point, let us

define the fundamental unit of 'temporal algebra' and its 5Dimensional analysis:

*A number is the social sum of undistinguishable fractal points.*

Thus we return to reality and make the point of geometry and the number of algebra, the units of mathematics, which reflect the Universe, and eliminate the Axiomatic method, which Gödel proved to be incomplete without experience, and the metalanguage of set theory as an absolute form of proving truth, which is just a 'worldview' deformation of the mind of 'idealist Germanic cultures', latter studied in more detail.

It is then when we can fully understand a mind-world as a higher elliptic scale of the 5th dimension, in which a social group of 'points' become a 'scalar number' - a field of a lower hyperbolic  $\Delta-1$  dimension, becomes a fractal network, connected to the 'point-particle', 'mass', 'molecular being', in a dynamic way.

in Algebra, function overcomes geometric form but only putting together both we can see what is the existential life of 'algebraic numbers'.

So we shall first consider the more 'algebraic of all the postulates' of geometry, the 5th postulate, which really reflects the meaning of a mind.

And then we shall consider the 'non-aristotelian' ternary algebra and the generator equation of:

*Sp (past, spaces; lineal entropic limbs-fields) ST(present, iterative hyperbolic waves-bodies) > Tf(cyclical future, informative particles-heads)*

The 5<sup>th</sup> postulate of Euclidean geometries can be easily

understood then from the perspective of perception, departing from its equivalent postulate, first stated by Wallis that we can shrink or grow triangles without deforming its angles and proportional sides.

This equivalent postulate, would mean that the angle of perception of species do not vary as they change side (no other meaning has an angle of a triangle, but the capacity to allow us to calculate trigonometric distances, reason why trigonometry was the first theoretical form of mathematics born of arithmetic calculus, which allowed Erastotenes already to measure the distance to the moon, the size of the earth and the Sun distance). However they vary. Angles diminish as we become smaller in hyperbolic geometry.

So an ant will see a world with a hyperbolic vision and a lesser angle, reason why it needs a larger circumference view (spherical eyes, or eyes around a 360 perceptive point of view in *Tf*, highly informative arachnid species).

On the other hand, in larger beings the angle will become inversely larger, so the eyes become the opposite concave and planar in form; reason why satellite antennae and telescopes which represent the larger view of a planetary organism have paraboloid forms.

This and many other truths of the 'strange Universe of the 5<sup>th</sup> dimension', in which the 4<sup>th</sup> dimensional Universe is both a distorted human point of view, using a single time clock, by using a single space-time continuum, of a limited number of 5D planes exactly - 2 relative planes of size, the humane lectroagnetic and the graivtatioal larger plane, (special and general relativity).

Temporal Algebra is the most fascinating discipline of ALL sciences. Trust me. I had huge mental orgasms for 30 years since I first discovered, and after a couple of rejected papers



and a small print book on it, have been exploring it by myself all this time.

It is resumed in the ternary Generator Equation of all systems and its fractal flows of time. So we have seen a bit of it already, but before we introduce it on full, we shall acknowledge the existence of some predecessors to the ternary motions-forms of space-time in the philosophers of science of the East, which reached its zenith in Taoism and the book of changes around the time the first Abrahamic ego-centered believers in the west expanded its 'ego', in this case the tribe subconscious collective or 'social God' to cosmic proportions making it the creator of lineal time and the whole Universe.

So each western tribe decided that his valley was the promised land, his tribe was 'God' who spoke of the supremacism of his people over all other humans and the infinite, reaching a paroxysm of ego-centered infinitesimal beliefs that would be ridiculous and laughable if it had not been so tragic for the non-future of mankind.

### **The splitting of symmetries and universal constants in physics. The conservation of ST-presents.**

NOW, we already stated that all the conservation laws of physics resume in the larger conservation law of all the systems of the Universe:

The Universe ExIst as eternal present of bidimensional systems of space-time (energy and information), which is what reality conserves.

so when a constant of relative present space-time (c-constant, h-constant, k-constant, o-temperature etc. splits into 2 relative parts, along the constant, the sum of both is a zero value of past+future which conserves the present.

Let us recall what those 3  $Sp$ ,  $Tf$ , and  $Sp=Tf$ , standing points and constants are in our world:

$Sp=Tf$ : constants of present action on 3 scales.

-  $C$ : the space-time fundamental constant of the galaxy, or present wave of energy and information, in the  $\Delta+1$  scale,  $k$  or Boltzmann constant in the thermodynamic scale and  $h$  or Planck constant in the quantum scale.

Max.  $Sp$  & Max.  $Tf$ : Young-energetic and old Informative, antisymmetries on 3 scales.

- Lineal vs. Cyclical formal motions, which we call lineal and cyclical momentum, and its integral sum, kinetic and potential energy, in the  $\Delta+1$  scale of cosmic bodies.

- Lineal vs. Cyclical formal motions, which we call, negative and positive 'charge' in the quantum scale.

- And finally lineal vs. cyclical order in the thermodynamic scale which we consider to have a constant called 0-Kelvin temperature.

It is that reality which must tilt one or the other side of the constant to create the worlds and anti-worlds, light and dark worlds of our Universes and Anti-Universes.

In other worlds the Universe which conserves,  $Sp$ ,  $Tf$ ,  $Sp=Tf$ , and  $\Delta\pm 1$  elements, the 3 scales and its cyclical and lineal momentums must in its origin be made of both, in its  $Sp=Tf$  original symmetries and this is the first being or constant of action, a particle, with lineal momentum, a wave, with  $c$ -speed a plane of space with angular momentum or spin.

We can in that sense define several possible births of Universes, but to be strict, we just will consider the quasar

Universe of our light space-time galaxy, which is the only one we have enough information to fully understand.

In such Universe we do know there is a space-time, which is light space-time. So we can consider it split above or below a certain dividing constant  $S_p \times T_f$ , speed, 'c'.

We know that the island galaxy, in which we are as masses and particles, have a c-speed barrier, we cannot cross. And we know

outside our Galaxy there is a whole world of dark space and dark energy, we do NOT see. So it is not made of c-speed light. So the origin of our reality 'before we were born must be a split that left on our side the  $< c$  speed and outside of our galaxy there must be a  $> c$  speed. This is the world of dark energy, which seems to expand *because* seeing as distance, faster than c-speed appears as expansive, entropic space.

This is not forbidden in Einstein's equations, merely means a negative sign in the mass and energy of the system, which can only be crossed, when a 'being' suffers the antisymmetry of moving from the side of more to-order into the side of more entropy, in the action of death.

Now, for a system to be  $> C$  speed it must have a space which is scalar, and with 0 spin, outside. So what particle outside can be  $> c$  and 0 scalar angular momentum?

As always we do NOT speculate (and that is why we have reduced our analysis to our galaxy). There is actually a boson, the Higgs boson that has 0 spin and negative mass in certain ranges of excited existence. So here we have the dark energy boson, the Higgs, outside the Universe, accelerating beyond c-speed, which therefore is the 'event horizon' or halo of the galaxy, which cannot be crossed in the larger scale of the anti-atom galaxy.

So the fundamental symmetry of the cosmological  $\Delta+1$  scale is  $>c$  (Higgs boson),  $\approx c$  (Photon)  $< c$  (Mass) is resolved.

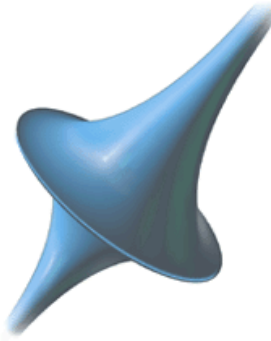
Next there is the question moves to the  $\Delta$ -thermodynamic scale.

Again, we must consider here the constant of order, which we found to be 0 K Temperature. So there should be a world to one side of 0 temperature and a world to the other side of 0 temperature.

And since we find that our world CANNOT go under 0 temperature, we are in the side of  $> 0$  Temperature and  $< C$  speed. This is evident. And so we must conclude that the dark world outside the galaxy must be below the 0 temperature barrier, which cannot be crossed either. Do we find then anything that is in the dark world below 0 temperature.

Indeed, black holes of large size have a perfect order and are 0 temperature. Their world starts in a accelerated vortex of gravitation, from where 'light cannot speak' because light actually turns at  $c$ -speed in its event horizon, but because vortices are accelerated (Principle of Equivalence between acceleration and gravity), beyond its 0-barrier black holes MUST move faster than light with less than zero temperature.

And so those are the fundamental barriers between the galactic world in space ( $< c$ -speed) and time ( $>0 k$ ) and the dark world of dark matter (black hole matter) and dark energy (expansive,  $> c$  speed).



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### The pseudosphere

The pseudosphere has constant negative curvature; i.e., it maintains a constant concavity over its entire surface. Unable to be shown in its entirety in an illustration, the pseudosphere tapers to infinity in both directions away from the central disk. The pseudosphere was one of the first models for a non-Euclidean space.

In the graph, the pseudo sphere is used to represent Kerr black holes on its central, faster than light axis, which transforms 'time cycles' beyond  $c$ -speed into spatial dark energy shut through its tachyon jet-axis into the dark world outside galaxies. This spinning process of accelerating and expelling waves and fields of information and energy absorbed through the bidimensional plane-mouth, is natural to all fractal points of the Universe in any scale of reality.

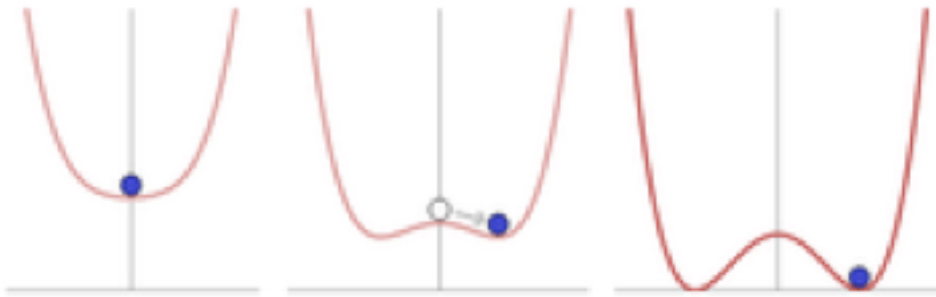
The pseudo sphere however has 2 jets, one that emits the  $Sp$  field of the system it absorbs and kills and one that emits its  $Tf$  particles, the red and blue shift sides of the black hole or star jet.

Both are the sides of a 'broken dead-symmetry' when a physical species,  $Sp < ST \geq Tf$  dies, as all systems, it does so because its 'fields, waves and particles' dissociate, losing the synchronicity of its internal clocks (De Broglie's wave-particle analyzed that synchronicity in its masterpiece paper, today often forgotten on the forest of mathematical trees). All systems then break as the time vortex accelerates and the field lines decelerate in inverse versions. Thus all symmetry-split of a Universe constant of action or wave can be seen also as a

death process of the physical system, and its now unconnected parts.

It is the duality of symbiotic creation big-bang destruction, clearly shown in the particle-antiparticle  $\pm$  charge fields vs. the proton-electron,  $\pm$  symbiotic union. The same graph can represent the potential inverse symmetry wells of those positive and negative charges:

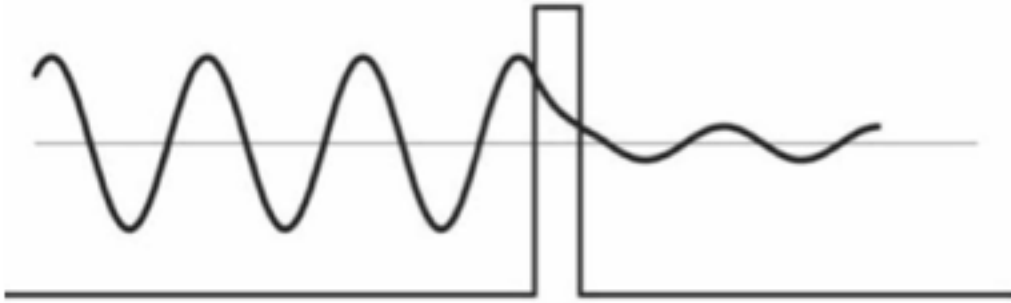
Another way to represent those two sides of a symmetry is the concept of a potential well:



A **potential well** is the region surrounding a local minimum of potential energy. Energy captured in a potential well is unable to convert to another type of energy (kinetic energy in the case of a gravitational potential well) because it is captured in the local minimum of a potential well.

The potential well will then be the ‘symmetry point’ or ‘Universal constant’, the c-speed of zero mass-energy; the place in which pure motion and pure form will reside eternally; which once broken will distend into the negative and positive ‘death’ maximals and minimal, extremal points.

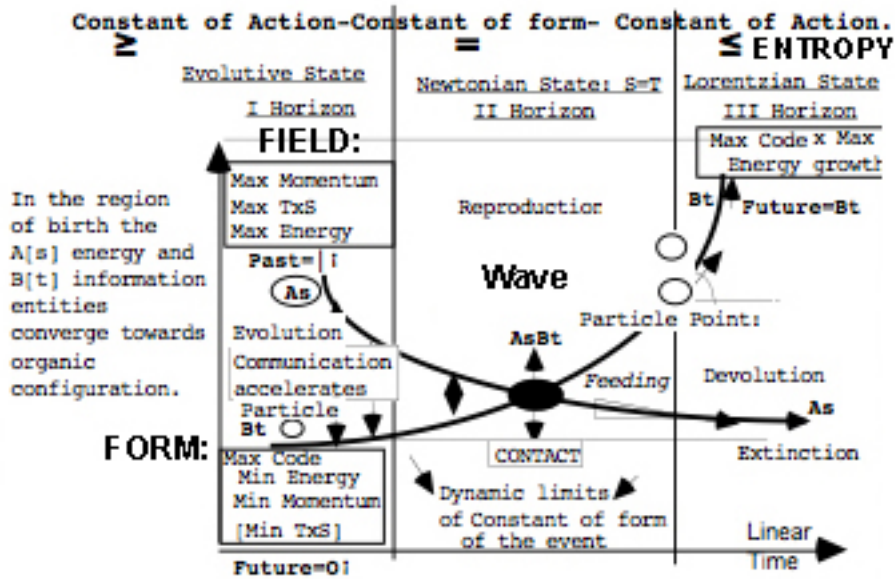
The potential well becomes then as the ‘death process’ splits its parameters into a potential barrier, which the system will NOT be able to cross unless it returns to its present-wave form (quantum barrier crossed in the wave state when the extremal past x future field-article system returns to the wave state):



In the graph, the quantum barrier can only be crossed in wave state. The understanding on T.Æ of those phenomena requires to fully grasp the ‘changes in time speed’ which all systems can perform within the limits of its constants of action: as we can accelerate our actions, increasing the tempo of our heart clock, which in turns do change our perception of time, systems can change its  $E \times T = H$  quantum of action accelerating its time clocks or decelerating them, and can change its ‘states’ from body-actions (wave-state) to head-actions (particle state).

After crossing as wave in the lower  $\Delta-1$  plane of the 5<sup>th</sup> dimension, the system though shows a lower energy-frequency, which it has spent going ‘under’ the well, in the  $\Delta-1$  dimension not above, jumping over the Height dimension of growth of form (which we observe in boson states of eusocial evolution that pile up frequencies of bidimensional spin 1).

Those are essential beats of absolute freedom and zero-viscosity, which all systems of the Universe can perform, in its vital state. The risks of those changes of state happen when the ‘change’ moves towards the ‘LNK’ limits of the physical function (Max. Sp=c-speed > stable > Max. Tf-form= 0 k), where the split an cause the death of the system:

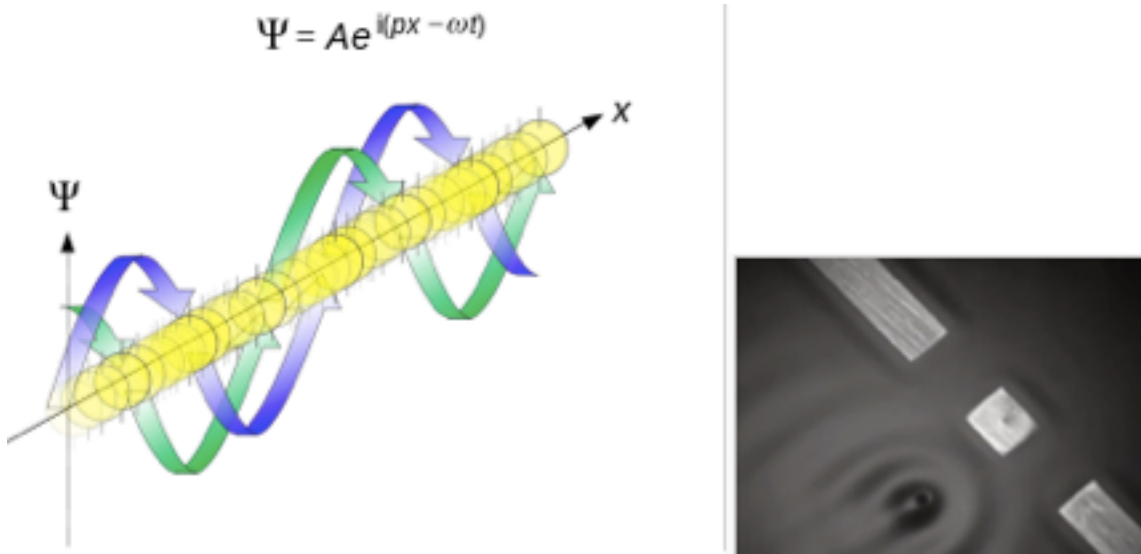


We can understand those processes thus also in terms of 'translation' and travel through the 5<sup>th</sup> dimension,  $\Delta$ -particle <  $\Delta$ -1: wave, faster state: motion > Particle-still form.

Let us then consider briefly the meaning of momentum and energy and its conservation laws which ultimately mean the conservation of the 5<sup>th</sup> dimension. We shall consider two aspects of it: the ternary symmetry of past-fields, present waves and future particles and how the Universe conserves its presents through 'reproductive motions', which will finally turn around the whole scaffolding of sciences, as we shall discover that actually the only arrow of time that was not organic of the 6 motions found by aristotle - locomotion is also reproductive, organic, so we live in a sentient, living universe!! which only physicists' lineal bias and abrahamic ego-trips blind us to.



**Ternary symmetry: Sp: Fields<ST-waves>Tf-particles.**



Particle physics, the other side of the physics supposedly experienced at CERN - along with cosmology, the replication of the big bang, is a restricted, relatively unimportant science, from the human perspective of our Uo-Plane of existence. But physics in general is not. Physics is constructed with the assumption that mathematics is the only language of the Universe and encodes all the information about it.

Of course it is not. Physical systems, are mere layers of the 5th dimension, fractal space-time beings generated by the same symmetries of time and space than other systems, and so isomorphic to them.

Mathematical physics is in that sense only a part of all the properties of physical systems. Bio-logical properties are far more essential to synthesize the meaning of physical systems, the why and reasons of its 'Maxwellian demons' (-; all those points-particles, fractal points of view that gauge information, acct-react to the environment and pursuit actions in space time that maximize its function of existence  $\propto (\pm\Delta e, i, \sum \propto, \int U)$ .

In pure existential algebra,  $\neg \mathcal{E}$ , we can deduce mathematically

departing from a logic function of existence,  $\mathbb{E}$ , in which 5 different space-time actions delivered by each fractal point, in a given plane of the 5th dimension, traces a series of actions, which are ordered into world cycles, that represent a flow of vital space, enclosed into a series of seemingly permanent perpendicular time cycles that guide them.

Existence as a holography of bidimensional functions of temporal information surrounding expansive fields of entropy to produce reproductive waves is a game which can be better expressed in Darwinian biological ways. Atoms in that sense behave in no different form from animal herds and territorial beasts, and human beings for that matter.

What is then a top predator in a given field of physics is the active magnitude with maximal mass or charge or momentum.

Particle physics is divided into groups, families of increasing

The distance-energy or past field of LARGER spatial size of the system,  $S_p$ , multiplied by the  $V=EX_i$ , speed, guided by  $T_f$  a quantity of its information-time clocks are constant, within the range of variations, which allows systems to perform actions of energy and information, in present physical system within a certain range for EACH of the planes of existence of physical systems. Let us then consider the main elements of that Generator equation of physical systems starting as usually in an inverse fashion to the mathematical analysis of physics – that is from the synthetic, organic whole and its larger points of view.

### **Toes:**

This gives origin in physics to certain modes of ‘future’ cyclical time vortices, spin numbers, photons, strong quarks, electrons, charges, magnetic moments, thermodynamic molecules, masses, angular momentums, cosmic bodies, solar systems, ud

stars, strange stars and top black holes, galaxies and Great Attractors, which are the 'Tf' elements of all those scales and subscales, between the minimal observed form, a fermion spin and the maximal one, the Great Attractor region of the Local Universe. They are all sub-vortices of the 4 fundamental Planes of the Universe, where the 4th is only partially perceived (the cosmic scale outside galaxies of 'neutrino strings' 'Higgs bosons', dark energy and dark matter), but we do have more vortices than the 3 perceived ones, the electromagnetic, thermodynamic and gravitational scales, as we must apply the ternary principle and break each of the 3 fundamental scales in 3 sub-scales).

Now in physics we can easily consider a generator equation of the 3 states-ages-forms of beings in the 3 scales of its 5<sup>th</sup> dimension ( $\Delta-1$ : quantum,  $\Delta$ : Thermodynamic,  $\Delta+1$  gravitational scales).

**The particle state:  $\Delta-1$ : charges,  $\Delta$ -molecules and  $\Delta+1$ : masses, vortices of time: clocks of information. Toes.**

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break each of the 3 fundamental scales in 3 sub-scales).

So Einstein, used those non-Euclidean geometries that make lines part of a bigger time cycle to study the curved masses of the Universe. And he said 'time curves (lineal) space into (cyclical) masses', which he defined with the Principle of Equivalence between acceleration and gravitational mass.

Thus as time curved space into masses, it accelerated gravitation into cyclical vortices. And gravitational, lineal forces became masses the simplest clocks of the Universe; whose attractive 'mass-power', was proportional to the frequency of its cycles:  $M = k f$ .

*This duality of mass vortices and expansive entropy, which already Descartes foresaw, when he affirmed that all what existed were res extensa (space) and vortices of time (masses, charges, galaxies) is the ultimate meaning of the dual equation  $E \Leftrightarrow Mc^2$ .*

### **ST: $\Delta-1$ : Waves, $\Delta$ -liquids and $\Delta+1$ speeds:**

Now those Tøes are 'static, point-particles' that share information and energy among them, from their relative static points of view, as the Universe has infinite relative frames of reference (this is one of the great findings of physics that still applies to 5D systems: the principle of relativity). It means that Tøes command a territorial region, in which they have an internal structure of 3 sub-parts, but also are in an outer bigger world in which they communicate with their Tøes on the upper  $\Delta+1$ , equal  $\Delta$  and lesser  $\Delta-1$  scales, giving origin to a fundamental 'second postulate' of  $\neg\text{æ}$ . If those  $\text{æ}$  are fractal points (first postulate), called fermions crystals, solids, stars and black holes, they will then communicate 'bosons, liquid flows, electromagnetic, sound or liquid waves or electronic current or jets of matter between them:

Future- $Tf < \approx$  Present wave-field  $\approx >$  Future  $Tf$ , giving origin to the second component of physical systems. And again in each scale we will recognize a relative present state with similar properties and symmetries in each scale.

So those flows of communication gives origin to the certain modes of 'present', reproductive wave-liquid states in each scale. So in essence bosons, waves, liquids, electric currents and jets and streams of cosmic matter and stars reproduced by black holes are in each scale the same wave fields.

What is then the main parameter of the relationship between the  $Sp$ ,  $Tf$  and  $ST$  elements of each of those scales. Simply the constants of space-time actions that relate in the simplest possible form, those 3 elements the Metric of the 5<sup>th</sup> dimension:  $K = E \times T$ .

That is, the constants of Action of Physics, in its 3 scales  $K$  (H)=  $E \times T$ , (quantum field)  $K(k) = E \times T$  (Thermodynamic Field);  $K(M) = E \times (\mu=1/e)$ .

Those 3 constants of action, the Planck constant,  $H$ , the Boltzmann Constant,  $K$ , and the mass Constant,  $M$ , are the fundamental elements which define the 3 planes of physical systems in the 5th dimension (quantum, thermodynamic and cosmological planes). Thus their translation into the simplex Metric of 5D physics is the first step to build the entire building of Physical sciences, with a comprehensive understandable, isomorphic formalism, which will return physics to the realm of reality and show the pantheist equality between all the systems of the Universe.

**$Sp: \Delta-1$ : Electromagnetic Fields,  $\Delta$  Thermodynamic Gases and  $\Delta+1$ : accelerated masses (equivalence principle).**

All the capacity of waves and particles to exist comes from

Fields, the Sp, and lower scale of pure entropic, expansive, accelerated motions.

They are the lower scales of which in the parlance of physics, waves and particles are considered 'excitations', in the jargon of T.Æ eusocial evolutions into tighter denser waves of energy and information and even denser particle forms, knots of waves, themselves 'excitations' that 'make emerge' efficient workable energy and form from the entropic, loose herds of field quanta.

So we talk also of a series of fields from the simpler, smaller to the larger fields of the Universe, of which the fundamental ones are the 'strong-field, of the internal region of atoms, of minimal size the electroweak field of light waves of galactic size, the thermodynamic field of heat waves of molecular size

So finally we arrive the other way around to the first part that all physical theories study, the simplest fields. Here we observe one fundamental different or rather complementarity of the way classic physical and 5D physics work: we develop reality from the whole and its generator equation downwards studying first the organic structure of the system in time and space, its T.Æ and actions and then going down we study the wave-Exi present systems and finally the Sp-Entropic, accelerated motions of the micro-fields of  $\Delta-1$  particles and lineal momentums which rise and give the energy and micro-clocks that the whole will use.

This of course is a matter of choice, made in T.Æ not to bust the balls of scholars but to complement what they have done. Indeed, the human scholarship today studies mainly the upward arrow of social evolution of the 5th dimension –w without even recognizing it is a social evolution. So, and this is what we criticize, describe the upper systems of reality as emerging from the lower systems, but without recognizing the interrelationship symbiosis and existence of an arrow from the

upper T.Æ elements through its survival actions that order the lower systems.

So physicists consider particles to be ‘excitations’ of fields hence some kind of secondary ‘thing’ which does not matter as much as the field itself. Biologists consider organisms, ‘constructs’ of Genes without realizing that once the organism is formed, it is the self, which directs the drives of existence of the being, towards energy information, reproduction and social evolution.

By bringing T.Æ, which is composed playing with words of a series of æ-points which play the game of Tao, of Temporal existence, and survival, by bringing Temporal beings, Time space Organic Existential Beings, into the game, and understanding perception by O-minds that gauge information, we complete the description of the Universe. We of course enlighten also the meaning of the lower scales and use the same formula and evident data, but we add, double reality.

All this said, fields do matter. As without them the emerging more complex social scales that interlock with them and create ternary co-existing structures will not exist, so for each plane of existence we must find a past-relative herd of micro-points, which are treated as indistinguishable particles by the wave-particle system, from where it extracts energy and information ordering it.

### **Motion as reproduction of form. Solving Zeno's paradox.**

*Now that we have analyzed reality from the perspective of the true nature of cyclical time and fractal space and the 5<sup>th</sup> dimension along which they exist, measured by the mental worlds of each discontinuous point of view, it turns out that the only non-evident, strange motion of time is locomotion. How do a form moves through a fractal discontinuous*

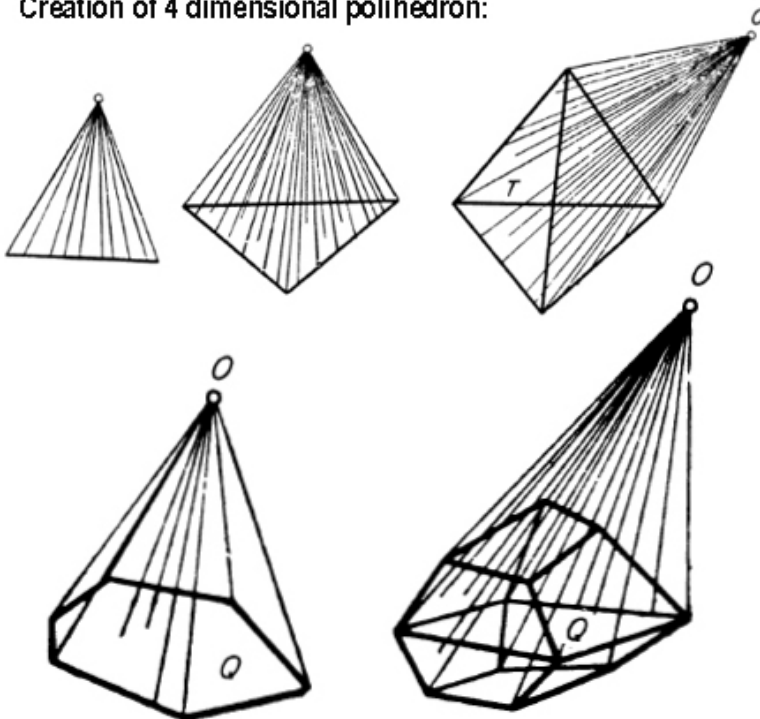
*geometry of multiple planes of existence?*

As there are always '3 elements and symmetries', by definition we need to define at least 3 forms of locomotion, that of the field, that of the wave and that of the particle.

***Locomotion of the  $\Delta-1$ : field 'information'.***

How the Universe creates dimensions? Reproducing forms. But we have to differentiate the reproduction of the lowest 'pixels' of reality, which for any system are the  $\Delta-2$  mental=mathematical creation of worlds, with the pixels of the field in which the system of information feeds. In that sense the way our mind reproduces within the far away clouds I am just seeing now, is the simplest faster reproduction of form, different from the physical creation of forms with energy. In the first case the dimension is only a wave of information and we can compare to the way in which mathematicians create 3 or 4 dimensional 'virtual forms':

Creation of 4 dimensional polihedron:



In the graph, in the plane the simplest polygon is a triangle; it



has the least possible number of vertices. In order to obtain a polyhedron with the least number of vertices it is sufficient to take a point not in the plane of a triangle and join it by segments to each point of the triangle. The segments so obtained fill a three-sided pyramid, i.e., a tetrahedron. In order to obtain the simplest polyhedron in a four-dimensional space we take an arbitrary three-dimensional hyperplane and in it a certain tetrahedron T.

Next we take a point not in the given three-dimensional hyperplane and join it by segments to all the points of the tetrahedron T. On the right of figure, we have illustrated this construction symbolically. Each of the segments joining the point O to a point of the tetrahedron T has no other points in common with the tetrahedron, because otherwise it would lie entirely in the three-dimensional space containing T. All these segments, as it were, “go into the fourth dimension.” They form the simplest four-dimensional polyhedron, the so-called four-dimensional simplex.

Its three-dimensional faces are tetrahedra: one at the base and 4 lateral faces resting on the two-dimensional faces of the basis; altogether 5 faces. Its two-dimensional faces are triangles; there are 10 of them: 4 in the basis and 6 lateral. Finally, it has 10 edges and 5 vertices. In exactly the same way, by starting from an  $(n - 1)$ -dimensional polyhedron Q, we can define an  $n$ -dimensional prism and an  $n$ -dimensional pyramid.

This type of creation is however mental, not physical and allows the human mind to create 3 dimensions and a computer to model any 4-dimensional phase space.

In nature, it is comparable to the motion of a wave, which is *only the evolving frequency-time cycle of an  $\mathcal{E}$ -point. Hence it is simple and fast to form (hence the enormous speeds of waves that carry contrary to believe the form, the information, not the matter, the energy-space of the system).*

*Yet, it already indicates that the true nature of motion in space is the 'reproduction of form'.*

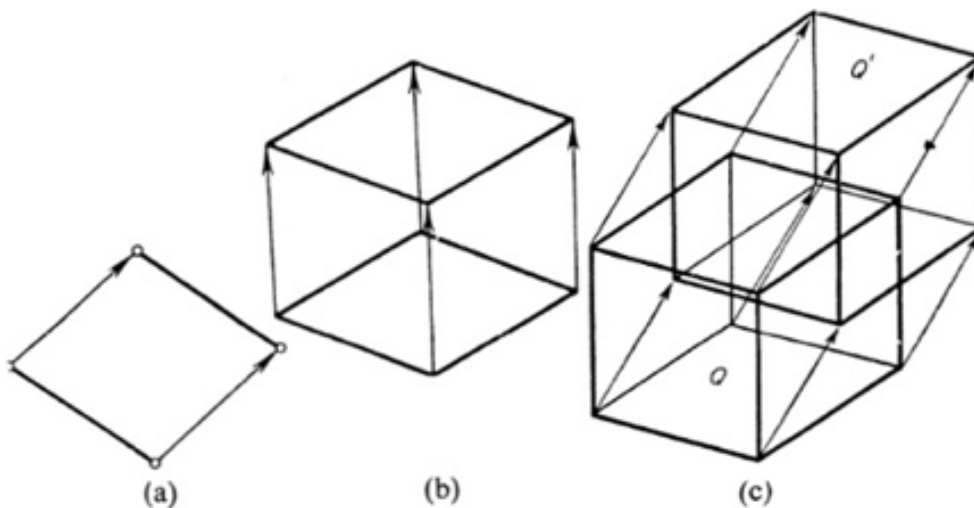
## **Reproduction of ST-waves.**

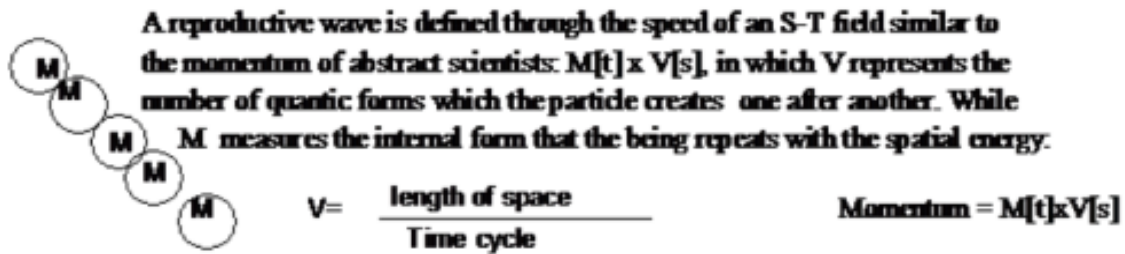
Thus we can now return, once we have established through the worldcycle the relationship between 5 out of 6 motions of time, generation, growth, evolution, diminution and extinction, where to fit the locomotion studied by physicists and affirm:

*Definition of Motion:* 'A wave locomotion is the reproduction of a form that imprints a lower plane of the 5<sup>th</sup> dimension'.

Motion is still an unresolved concept, as the Paradox of Zeno shows. The paradox can be solved though with the concept of an indivisible quanta of time (infinitesimals have a limit), so there is a minimal step in space and quanta in time for the turtle to move, stop and move. But it is motion real?

It is when we deal with the never solved question of motion and its meaning from the perspective of the 3 ages of existence in time – as a reproduction of form in its wave state, and then 'energy is carried through the wave':





## Motion as reproduction of form.

Motion is in more profound terms, the 'repetition' of a form several times over the same place, which creates a 'density of form'. Thus form is THE REPETITION, the REPRODUCTION of motion.

The profundity and implications of this fact, to explain all kind of phenomena, from the quantum complementarity of waves and particles, to the paradoxes Zeno will become evident as we go along, and solve some of the most striking paradoxes of Philosophy of Science that dates from the times of the Greeks.

What matters now OF QUANTUM PHYSICS is to understand two things:

- Particles do NOT move. They are the stop point of the wave.

A particle is just the next plane,  $\Delta$ , of an  $\Delta-1$  wave, which reproduces through a relative lower,  $\Delta-1$  field. And as it does it moving to the past and emerging into the contiguous, adjacent present it seems to move. But *motion is reproduction! of a wave of form.*

And it is in present, because it has travelled back to the past, descended an scale to seminal state in the adjacent region, where it has reproduced, literally.

So motion to the past and the future do happen in the 'perceived' present 3 scales of a super organism. It is like when we talk on the phone, the voice is translated to a faster, smaller

electromagnetic wave that moves and seems to be after 'reproducing' the wave over the vacuum, or through the electric wire, to happen in present time, with no space between us.

Now the more complex explanation of this fundamental dual function of beings, is that a wave is a present reproductive motion and a particle an  $I$ -field of energy  $\times$   $O$ -particle of information, or 'momentum', a past  $\times$  Future state.

Here the advances of Mathematics, with its concept of 'metric', solves it: Klein defined motion as a 'group translation', a symmetry. So motion is a 'reproduction of form' in the adjacent region of space. A mirror symmetry, which happens in the adjacent region of reality.

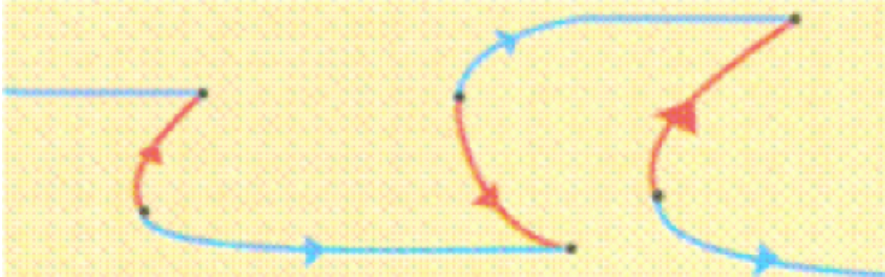
This is clear in the wave state of the system that reproduces its form as it goes along its path. And it implies that a system with lesser information, form, takes shorter in repeating its form along its path of 'present, repetitive motion'. So light with minimal form is much faster than particles and human beings.

And hence we can deduce the fastest, infinite non local speed of invisible gravitation with no form:  $V=S/Tf$  (understood here as cyclical motion-form). Since gravitation has no information,  $T$  here is  $0$ , hence, speed is  $v=s/0 = \infty$ , non local, as perceived by a human observer.

Motion thus will ultimate appear as the reproduction of form, of information. And we shall return to it. What matters at this point is to realize that the marriage of mathematical, conceptual and precise definitions of the dimensions of time and space and the metric of the 5th dimension are powerful tools to explain an infinite number of questions of all sciences and unify them, ultimately departing from that simple beat,  $S<T>S<T$  (where  $<$  is an expansive motion, and  $>$  and implosive, informative one, a past to future, future to past, through present space rhythms).

## Practical analysis: the Galilean paradox in electronic and light motions.

For that reason, we can always consider a stop and go motion in physics; which has enormous repercussions in theoretical physics and the understanding of relativity and the Lorentz transformations, treated elsewhere in those texts:



In the graph, the stop and go motion of electrons and the virtual creation and extinction of particles in the light space-time sheet, have a quite different enlightening description in relational space-time physics. Some of the phenomena involved:

Electrons and anti-electrons are time past to future (life longer) and future to past (death shorter) time arrows. As such both inverse functions past-entropy (antiparticle) x future-information (particle) = Present light space-time, annihilate giving birth to the relative 'present-space' of our galactic world, light space-time.

Light space-time condensates into virtual particles,  $Sp > Tf$ , evolving the field of motion into a particle of charge, which then dissolves back in  $Tf < Sp$ , an antiparticle event. Both collide giving birth to present, and any of those similar space-time equations provide an insight in the particle-antiparticle duality.

Further on it explains why there are less antiparticles in total space-time, as they are as many in space, as many 'deaths as lives' we might say, but death is an instant, so we do NOT see

as many antiparticles that last so little as we do not see many corpses in the our daily life - even if there are as many as living on the long count.

Further on, because information is perceived and emitted in stillness, the previous process of stop and go, electronic stop, emission of  $\gamma$  rays, motion, stop perception of  $\gamma$  rays, means that in relativity we can also construct a new metrics in which time and length remain constant and what changes is the speed of light, since we are perceiving (Michelson's experiment) a process of electronic stoppage every time it emits and perceives light, hence LIGHT becomes c-constant because to emit it and perceive it the electron stops, in relationship to its lower 'gravitational space-time' in which the electron co-exists.

Then how do we measure and operate in frames of reference that are still and moving is the knots and bolts of Galilean and einsteinium relativity? Relativity though is an incomplete theory in its explanation of what studies. It studies only a membrane of space-time of the 5th dimension, that of c-speed/time in as much as it is light space-time, the medium where we 'float'.

Over what that light imprints itself (gravitational space) is of not concern here. Suffice to say that in the game of Russian dolls, the gravitational doll is larger and encases with points of faster rotational time frequency (black holes) and lines of faster lineal momentum (strings), the light space-time. The transition between both worlds thus imply as always in any up and down transition along the 5th dimension a change in the speed of time and size in space of each quanta and bit of spatial energy and temporal information.

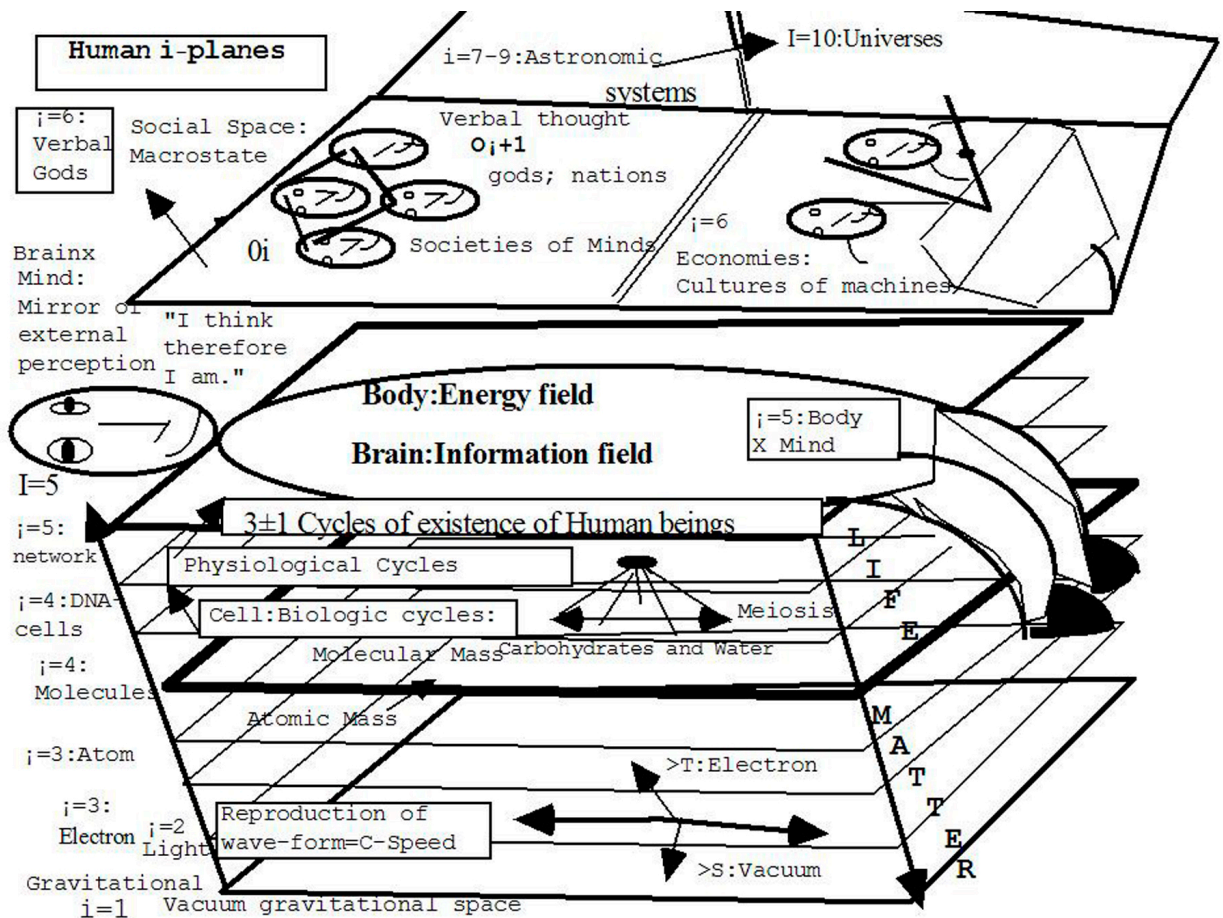
### **Reproduction of particles – matter reproduction.**

So we arrive to the final form of reproduction, in which not

only information is transferred inwards collapsing into a mind-particle (field reproduction, which *is the mental perspective on a field force from the point of view of the inner particle-mind*), or a wave in which only the energy and form, or external envelop, with its frequency translates along a previous, simpler  $\Delta-1$  field, but to the 3<sup>rd</sup> category: reproduction of a 3 dimensional particle, which can be treated as the reproduction of the full density of the being as it moves.

It is the slowest reproduction, as the form must be reproduced in all the previous scales of the 5<sup>th</sup> dimension. And this means the 'form, must as it moves 'reproduce' its entire wave of pyramidal scales on the next region of the 'deep' space-time, making one by one all its scales of form, reason why the relative motion of a human being, decomposed in all its scales of form, departing from the lowest gravitational scale is comparatively so slow, just a few meters per second, on the order of  $10^{11}$  times slower than light. Again the magic number of Dimensional scales.

What this tell us is simply that the proportion of density of information of a thermodynamic human being in comparison to a quantum particle is precisely of that order. So again according to the general rule of 5D metric:  $Sp \times Tf = \Delta(ei)$ , to reproduce all those planes we must move much slower:



*In the graph to reproduce all the planes of existence of the Human being, the speed of creation of adjacent spaces must be in a  $10^{\pm 10}$  lower order than the light space quanta which have just to reproduce its 'envelop' of frequency over the gravitational quanta of 'longitudinal neutrinos'.*

### **Idealist school of mathematical physicists vs. reality**

Indeed, modern mathematical physics is based in the Axiomatic Method of mathematics, 'invented' by Hilbert, which is based in Aristotelian one-dimensional Logic.

Hilbert affirms then that we can deduce ALL mathematical statements using the logic available to science a century ago, called Aristotelian logic based in:

- A simplistic single time arrow, so A causes B, means that B



does NOT cause A. This is false.

In reality logic is a ternary, dialectic, Hegelian logic, because there are 3 arrows of time, and its corresponding 'simultaneous' 3 organic elements in space:

$A < \approx > B$ .

That is A-energy and B-information come together into  $\approx$ , the present space-time being, or space-time action, or synthesis. And we shall see how this writes as the 3 arrows of time and symmetric forms of space: A (relative past energy) x B (relative future information) = C-relative repetitive present

- The exclusion of the third element, (only A and  $\neg A$  are relevant), which has NOTHING to do with the aforementioned ternary logic of the Universe and its ternary symmetries in space (3 dimensions of space), parallel to the 3 ages of time. So length is the dimension of the function of lineal motion, height the dimension of perception and information, and width the dimension of reproduction. And 3 dimensional motions of space-time come together to form A:

Since Nature 'pegs' those 3 forms & functions, which put together create the underlying structure of all systems of reality, both physical and biological, as all combined the ternary elements of the generator equation, either in sequential time orders (entropic youth, reproductive maturity, 3rd informative old age) or simultaneous, spatial organisms.

In the Universe  $X^3 + Y^3 \neq Z^3$ . means we have only  $X^2$  bidimensional waves of space and time cycles, and the 3rd dimension is added layer after layer of bidimensional networks. we live in a mathematical Universe but limited by mathematical laws of symmetry and balance that mimic the laws of the ternary fractal reality. The units of reality are Sp and Tf, the poles of entropy and cyclical form, its

bidimensional constants of angular momentum  $c^2$  speed-space or mass vortex.

This 2 dimensional, network plane that joins points along a shared energy and information collective action or unit of existence can be a field of magnetism and one of electricity a gravitational gradient and a particle, a group of citizens communicated or connected by a satellite, in all of them we can define a network with a relative fractal dimension, which we average to one made of networks of points, which contact perpendicularly through mere derivative fictions along a space-time field with other beings, this modular game of existence.

But the long time arrow of eusocial evolution of parts into wholes, studied by the 5th dimension, and by Theory of Evolution meant nothing to him.

neither the cyclical time arrow of 3 ordered time ages, past-energy, present reproduction and future information, which defines the existence of all 'world cycles' from human life to matter. Though he found its dual equation, Energy (expansive entropy-past)  $< \approx \text{light-present-wave: } c^2 > M(\text{time vortex-future})$  he still ignored its essential meaning. So he would say 'time is what a clock measures'; and used it fundamentally as Galileo, only to study of the all the types of time motions of the Universe, for the analysis of external time-motions, which is the restricted 'job' of physicists.

Time however has besides present, differential, external motion-measures in space (Galileo's  $V = \partial s / \partial t$  and Einstein's  $S^2 = S_x^2 + S_y^2 + S_z^2 - (ct)^2$ ), other type of time-motions, mainly informative evolutions (Evolutionary theory in Biology, vortices of evolution in masses, historic vortex of evolution, future 3rd age of maximal form and in-form-ation), and present, reproductive wave-bodies.

And it is fractal, in infinite different waves, reproductive bodies, entropic limbs and fields, informative particles and heads, whose geometry stores maximal information in minimal space (so all relative future, informative, gauging particles, heads and cameras are geometric).

**The 3 conservation laws: Energy  $\approx$  5<sup>th</sup> dimension; lineal momentum: open space; angular momentum: closed time.**

PHYSICS, when trying to find the laws of conservation of the Universe they found 2 laws, the law of conservation of angular momentum, which is a cyclical motion, self-centered into a point; and a lineal motion.

The conservation of momentum is associated in quantum mechanics with the proposition that it makes no difference where you do the experiment, the results will always be the same. As independence in space has to do with the conservation of momentum, independence of time has to do with the conservation of energy.

And so we must deduce that there is NOT absolute space, as the location in space is completely independent on the result of an experiment. So all space is self-contained to the event of space-time and region affected by the experiment.

Then there is the conservation of time. If we turn our 'experimental apparatus' in a 'time-like cycle', this too makes no difference, and so the invariance of the world to angular orientation is related to the conservation of angular momentum; which means all worldcycles of time have a total zero-value, as they close into themselves in the same point.

So we found that the Universe conserves cyclical motions of time and lineal motions of space.

Then there is the conservation of Energy, which is roughly speaking the 'integral sum of lineal and cyclical momentums'.

In quantum mechanics it turns out that the conservation of energy is very closely related to another important property of the world, things do not depend on the absolute time.

We can set up an experiment at a given moment and try it out, and then do the same experiment at a later moment, and it will behave in exactly the same way. From this we can deduce the principle of conservation of energy. It is a rather subtle and interesting thing, which can only have an explanation:

Absolute Time, duration, which integrates a series of lineal and cyclical motions, adding them to the extent of creating a new scale of the fifth dimension, IS FRACTAL. It does not exist as a continuous lineal infinite time in a single continuous space plane.

As such absolute time does not affect any event happening in time, which therefore is a self-contained process, a cycle related to the internal time of the event.

A Time cycle is therefore a closed, fractal cyclical proposition.

But we can add, integrate time cycles and that creates the illusion of absolute duration; and we can integrate space surfaces and that creates the illusion of absolute extension.

This is what Leibniz called relational space and relational time.

Leibniz would have said that 'all substances are made of cyclical motions with different speeds = different clocks of time.' And different vital spaces, fractal parts. And all together create the illusion of absolute space and absolute time.

But we can add a third element, the 'Integral of spaces and

times', which give us the concept of Energy, similar to that of a 5<sup>th</sup> dimension integral. So on the regions of reality where we can conserve Energy, we are observing a process of scalar, social growth of elements of the 5<sup>th</sup> dimension. And this gives us the fundamental equations for each scale of physical systems, which are the equations of energy for each of those scales:

$E_{\Delta-1} = hf$  for the quantum  $\Delta-1$  scale,  $E_0 = RT$  for the scale of thermodynamics, and  $E_{\Delta 1} = 1/2 mv^2$  with the limit  $E = mc^2$  for the gravitational scale.

Whereas as we can observe, a given Plane of the 5<sup>th</sup> dimension conserves a 'constant of bidimensional space' (h, k, m) and a different speed of time cycles, (f, T, v).

We can study then the interaction of those 3 elements, how they transform into each other through the 'frontiers' between those 3 scales, and what it means the different combinations of those formula, specifically the one that defines each constant:

$$H = E \times T, R \text{ (or } n k) = E / T \text{ and } m = E/c^2$$

In this form they represent the constant of action of energy and Time of each of the 3 scales akin to the co-invariant law of the 5<sup>th</sup> dimension. It simply means that in each scale of the 5<sup>th</sup> dimension there is a certain constant 'rod of measure of space and time that varies (never mind here that we, humans use for certain measures of time, the frequency, and for others the period:  $T=1/f$ ).

The enormous field open by the study of the 3 scales of the Universe, its constants of space-time, its time frequency clocks and its 5 Dimensional growth in social scales of energy, is a huge field, which we cannot 'attack' in this post.

All this said, it is essential to recognize the existence of 5D and

get rid of 'hang-ups' from tribal idols of the Germanic idealist school of science (Hilbert, Bohr, Heisenberg, Clausius, and Einstein in mathematics, and small, medium and large physical systems) with its 4 ideological errors: mathematics is consistent with itself not real (disproved by Gödel), quantum physic is only what we observe and only one state at a time (Copenhagen interpretation of  $\Delta$ -1), the only arrow of time is entropy-motion-death,  $\Delta$ ) and the rod of human electronic measure, space-time light (c-speed) must remain constant and all other 'clocks and lengths' of space-time must be adapted to it.

And finally all 'together now', the Universe is a space-time Continuum, as the founding father Descartes used a single space-time and Newton made it sacred.

In that regard, we shall save from the bonfire of vanities and weapons, which is the worldview of anthropomorphic religions and physical sciences only one figure, Mr. Einstein; as he did respect Philosophers of Science – always acknowledging the influence of Mach in his worldview, Mathematicians, using the 5<sup>th</sup> postulate of Non-Euclidean Geometry to r=evolve physics; introducing a first version of a Universe built with infinite cyclical times (so he would quip 'I seem to be the only physicist that understand that there are infinite times in the Universe running at different speeds), even Mr. Leibniz ('Leibniz is right, but if so we must throw all physics and start to build it from scratch).

Pity, when he got older he yielded to them, since the Bomb, he sponsored with his letter to Roosevelt make him globally famous. So he corrupted and stop having a laugh to Minkowski and the like. Ultimately, Einstein the r=evolutionary of time, of his youth, couldn't build all physics from scratch. And could not complete the mathematical r=evolution of Non-Euclidean geometry he did start. So we will just do that. Because one thing is for sure. We won't corrupt. Physicists will never accept

us. And we will not build a bigger bomb to get their respect.

Let us leave it like that – in Einstein’s last sentence: ‘Time is what a clock measures; there are infinite of them, and each has a different speed’...

And ad, for that to happen, all clocks of time must be cyclical, closed motions. So they are finite, they break space into pieces, and each time cycle has a different speed because its ‘perimeter’ has a different length. And because they are finite, as Leibniz explained, absolute time is only the sum of all the time cycles of the Universe, put together as in a puzzle that seems a single plane but is made of infinite little pieces.

Space on the other hand is open. It might seem not that important to set the record straight to understand this fundamental quality that differentiates time from space, but it is the *key to it all*.

Philosophers though realized of the deformation of time and have often called the interpretation of cyclical time by physicists as lineal space, the ‘spatialization of time’.

Physicists like Hawking have quipped back saying ‘we do not understand mathematics’ and that is why we are envious of his concept of time. Let us have a look at that opinion. Now, arguably the two most important mathematicians of the classic age were two philosophers of science, Mr. Descartes who founded Analytic geometry and started modern mathematics, and Mr. Leibniz, who founded calculus – yes, he, not Newton published first the laws of calculus, though Fermat, an amateur Basque scientist, and fellow countryman, seemingly had figure it out all earlier on...

And as it happens, both Mr. Descartes and Mr. Leibniz were the fathers of the modern scientific concept of cyclical time, precisely because *they understood mathematics far better*

*than any physicist did. And in those texts we will evolve mathematics, as nobody has since those 2 completing the 5 postulates of Non-Euclidean mathematics, needed to define cyclical time and fractal space, since mathematics got stuck 150 years ago, into reforming only the 5<sup>th</sup> postulate of Geometry, and so now is a contradiction between 4 Euclidean and one non-Euclidean.*

So we shall prove, we do know as our predecessors in the study of cyclical time, Mr. Descartes and Mr. Leibniz much more mathematics than physicists do. And that is WHY we reason on terms of cyclical times.

It is indeed remarkable that of the 4 colossi of that age, founding fathers of science, the 2 'pure physicists', Galileo and Newton did not understand this obvious truth. While the 2 equal figures, which had however a more mathematical and philosophical background, Descartes and Leibniz, did grasp at once this ultimate fact of the Universe.

So Descartes, contemporary of Galileo, said that all what exists was made of open space, which he called 'res extensa' and closed, cyclical time, which he called 'vortices'. Nobody understood him though because while Galileo had failed to be 'the delight of philosophers', his lineal time had become of great use to artillery masters, which carried the day and made him one of the wealthiest men of renaissance Italy.

Descartes meanwhile had to make his living selling his mind to 'artillery masters', till queen Cristina, the 'Minerva of the north', knowing he had a poor health, perversely made the 53-year-old Descartes rise before 5:00 AM to give her philosophy lessons, even though she knew of his habit of lying in bed until 11 o'clock in the morning.

She also ordered him to write verses to celebrate her role in the Thirty Years' War and the statutes for a Swedish Academy.

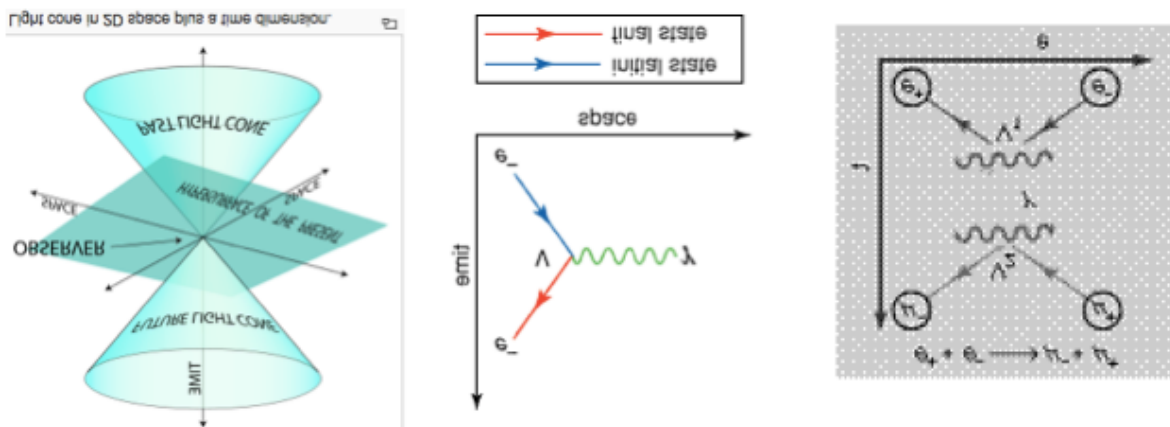


While delivering them to the queen at 5:00 AM, he caught pneumonia and died, saying 'in winter men's thoughts freeze like the water'. And so his most important discovery along analytic geometry, the nature of the 2 principles in which reality is founded floundered for a century long.

There is here a pattern which repeats among philosophers of science sponsors of an organic sentient universe, of cyclical time and fractal space, ending in relative oblivion vs. the military physicists of lineal time and military power that carry the day and we shall see the pattern in the lives of each century masters of space-time studies: Galileo vs. Descartes, Newton vs. Leibniz, Boltzmann vs. Darwin, Einstein vs....

And we will return to that historic understanding of perhaps the biggest blunder of mankind, many times, with examples of the eternal fight for the soul of man and his knowledge of the Universe, between us, the 'good intelligent guys' (-: philosophers of science and them, the 'bad stupid ones', the 'physicists' O-: Pity the sheeple goes always with them.

**A fast survey of time in modern physical sciences.  
Lineal External motions≈changes.**



*Beyond lineal, Galilean Time in the XX century, physicists widened their comprehension of time, in two separate new senses - that of Einstein's relativity, and that of quantum*

*physics in the realm of particles:*

*In the graph, the 2 most important new perceptions of time of modern physics after Newton->Galileo's vision of lineal time, were those of Einstein->Minkowski's light cones and Feynman's space-time diagrams. In the light cone, time is still considered just a parameter of external space-motions, but it appears for the first time the concept of an arrow of 'future time information' - that is the information of a different space-time point, which in the future light can reach. This represents the arrow of future information of 4D models.*

Einstein 'did know', when he said: I am the only physicist that thinks there are infinite time clocks in the Universe running at different speeds. Leibniz is right, but if so, we have to rebuild the entire foundations of physical sciences from its beginning... but he didn't do it. Instead, lineal Germans forgot all what he had truly discovered and 'blocked' the advance of cyclical time with their lineal 4D space parameter to keep the illusion going.

The classic interpretation of Einstein's special theory of relativity by Hermann Minkowski, a Lithuanian-German mathematician, it has been clear that physics has to do not with two entities, space and time, taken separately, but with a unitary entity space-time, in which, however, time like and space like directions can be distinguished. The Lorentz transformations, which in special relativity define shifts in velocity perspectives, were shown by Minkowski to be simply rotations of space-time axes.

The Lorentz contraction of moving rods and the time dilatation of moving clocks turns out to be analogous to the fact that different-sized slices of a sausage are obtained by altering the direction of the slice: just as there is still the objective (absolute) sausage, so also Minkowski restores the absolute to relativity in the form of the invariant four-dimensional object,

and the invariance (under the Lorentz transformation) of the space–time interval and of certain fundamental physical quantities such as action (which has the dimensions of energy times time, even though neither energy nor time is separately invariant).

This fact is important in 5D physics regarding the metric,  $E = S \times T$ , when we enter in details on mathematical physics, not so much in other sciences, where the quality of the actions matter more than its equations. It is in that sense important to realize that what is ‘conserved’ in a single plane of space-time, is the ‘quanta of space’ or physical constant, H-constant in the quantum scale, K-Boltzmann constant in the thermodynamic scale and c-speed constant in the gravitational scale. The fact that they are measured in 3 different parameters, action (h), entropy (k) and speed (c), will require some understanding of the biased observation of those constants by humans, more proper of the specialized articles on physics.

What matters here is to corroborate some important aspects on 5D:

- The space of each scale is conserved, and in that sense infinite, it does not expand neither varies (no creationist theories of a single space-time continuum).
- Time varies in its frequency (inverse of duration and the true parameter to use to measure cyclical time:  $T=1/f$ ), but its product with the energy of the system does not vary in a single plane.
- Time speed=information varies and energy flows between scales, but (and this is a law of 5D which obviously is not advanced by Einstein, unaware of the fractal structure of the Universe), for a  $3-\Delta\pm 1$  scales of the Universe both are conserved. And this is truly the meaning of the 5D co-invariance. It means that for each closed system, or ‘worldcycle

of existence of a being' between birth and extinction the system lives and dies into a zero-sum its total time and space.

All this are important Correspondences with Einstein's work expanded to the 5<sup>th</sup> dimension, which will be mentioned often when studying the key parameters and events and spatial quanta of 5D space-time beings namely their worldcycle between life and death, and its structure and co-existence in 3 synchronizes scales or states (fields-waves and particles).

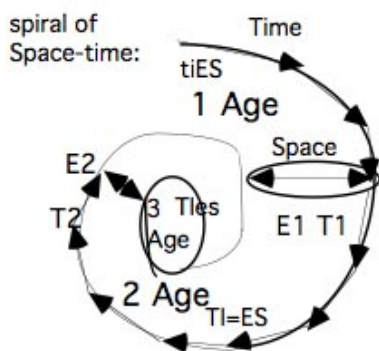
In essence, because Einstein, worked with a single plane, and lineal time, Minkowski defined (left image), worldlines. In 5D we will define worldcycles, which is what experience sees. And we will define a total zero sum on a worldcycle of life and death, so time is conserved or rather erased in equal zero sums. Because death is an entropic explosion of information into expanded space across 2 entire planes of the 5<sup>th</sup> dimension, 3 are the planes in which a worldcycle exist. As we are born in a cellular scale and evolve into organic and social scales but die back to the cellular scale in entropic death (matter dies back into the radiation, minimal particle scale).

What about the concept of lineal time in Relativity, both Galilean and Einsteinian. Here we must warn the reader of the overblown importance given to the concepts of time in physics which are not only restricted by linearity but by the limits of its philosophy of time.

In the widest sense time is ALL forms of change in the Universe and 5D T.Æ does explain them all. For example the worldcycle of life and death is the key to understand the survival program of the Universe, its ages and horizons of evolution; the 5<sup>th</sup> dimension and its arrow of time of parts and wholes to explain the evolution of the Universe and the life and social evolution of humanity. And so on.

## WORLD LINES VS. A WORLDCYCLES

Thus we all have a finite existence, part of an accelerated vortex of time with the 3 ages of increasing frequency of form, till the reversal of time in local Space-past, with no 'paradoxes' of returning to a full time past that does not exist. It is the structure of the worldcycle:



In the bend graph of space-time, we can describe an organism, as a spiral form. The space=energy of the spiral is given by the transversal volume. Its time or cyclical age is given by the length of the cycle. Imagine the most well known of such organisms: a galactic spiral. The energy of the galaxy is the plane of stars. This spiral graph will be a graph of such energy, as the stars go through its 3 ages of evolution. This age of course is given by the length of the time-cycle. The star will start evolution in the external section of the spiral. As it enters towards the center it will grow in information, in form and diminish in space, in size and energy. The graph shows the process for the entire spiral, though there will be different stars, since the graphic is quantic, with different degrees of evolution. As the stars fall into the organic vortex, they reach form and finally enter the third age, contracted by the black hole into minimal volume...

So the time line shows the age of the population of 'cellular individuals', while the width shows the energy content of the organism. As in the other graph [lineal graph] we show the population across time. So there are 3 ages put together in the relative present of the graph. This is in fact what happens in organisms, which have energy cell, and information cells together. What proves of course, that in the cuantic Universe there are no single directions of time, but multiple forms with different degrees of cuantic energy and cuantic information.

As we enter the graph information increases [time line is longer] and energy decreases [width diminishes]. Yet there is a relative balance between both, since:  $E1 > E2$ ;  $T1 < T2$ , pero  $E1 \times T1 \approx E2 \times T2$ . That is: the loss of energy is compensated by an increase of information. So happens to an old man which has more memory, more information but less energy. We might say both components are in a relative balance together

*All of us ST organisms live by travelling in growth through our vital dimensions, by growing in informative complexity through the ages of life, till all warped information in our 3rd age dissolve back to our  $\Delta-1$  cell state. In the graph, a 20 years old graph of the world cycle (E means Space-kinetic energy)*

In the graph, we can see one of the first key differences between a 'physical' understanding of motions in a simplex Universe of 4 'spatial' dimensions (where time duration is merely used as a measure of motion in space,  $v = \partial s / \partial t$ ) vs. a 'complex' understanding in IST Dimensions, which included 'changes' in the proportions of 'Entropy' and 'information' of the being (arrow of life, from an energetic youth to a 3rd, informative age), and changes in the 'size scale' and 'speed of time' of the inner structures and clocks of the system.

The graph represents the worldcycle of life and death in a human being in  $I=TS$  IST Dimensions, as a system born as a seminal seed of information, in the cellular scale,  $i-1$ , which travels through the scales of social complexity emerging as an individual 'whole'  $i$ -system in the organic scale, and finally as a citizen, cell of society, to a higher,  $I+1$  scale, God, nation or civilization, which will then, once the life cycle is over and all becomes information explode back into death, releasing that information as Entropy into the lower,  $i-1$  scale of cells,  $\sum i-1$ , which will feed another worldcycle.

When physicists study motion in space-time, they reduce it all to a translation through space, in a time duration, which can be 'derived', that is, it is continuous without any remarkable change of state, for the system in the whole motion.

When we widen that description to a IST D motion, we obtain however a 'worldcycle', as the world line becomes more complex, curved in more dimensions.

Yet the main difference in what it means a translation in 4 Dimensional 'Physical space' and IST Dimensional 'Complex space', arouses when we understand that in Complexity, entities are made of Dimensions (Leibniz's theory of relational times and spaces) while in physics, dimensions are a 'background' abstract to the being – a deformation of the way they were conceived as absolute space and time, with a

'background paper's artifact – the Cartesian frame of analytic geometry.

Thus to move in physics over a background artifact of dimensions is different than moving in complexity as you are made of dimensions, your self-dimensions as an IST Dimensional being move with you.

This outdated model of absolute background dimensions is thus replaced by a fractal model of dimensions:

Each entity of the Universe is made of a relative amount of 'vital space' and last a quantity of 'time' as it grows from its seminal scale to its individual and social scales, where it evolves and interacts with other similar entities. We are thus 'vital dimensions', we are made of them, their motions, symmetries and transformations.

And so all what exists follows the generational-life cycle

But if time had 3 motions, ages, and its 'still spatial perception' of them as 3 forms, we had to add new dimensions to the simple lineal 4<sup>th</sup> dimension of time. In reality it is all more surprising. The 3 dimensions of space as we shall see are equivalent to the 3 dimensions of time, in a fractal Universe made of infinite space-time beings, where we can see motion as still dimension.

Lineal time corresponds to a minimalist vision of a time cycle as Kepler said (all lines are small parts of an orbit). Since a line of |-space is in fact a small, 'fractal' step of a longer O-time cycle; which curves |-space into O-time cycles when we have a 'larger perspective' of the whole duration of the space-time-cycle, as non-Euclidean geometries prove.

Since also mental languages, topological forms, space-time dimension, all is generated by those 3 time arrows and its



symmetries with spatial forms, it is not surprising that already Cheng Tzu would say, from one comes 2, from 2 comes 3 and from 3 the infinite Universe.

In fact the first understanding of the 3 ages of time between birth and extinction was understood by the Chinese-Korean culture, with its trigrams, or bagua, that describe the 9 sub-periods of existence of a being of space, Yang, \_\_, and Time, yin,--, between birth and extinction, which divide the 3 sub-periods of time of all systems:

Young, spatial, energetic Age:

- Birth: 0-8: \_\_, \_\_, \_\_

- Childhood: 8-16: \_\_, \_\_,--

-Youth: 16-24: \_\_,--,\_\_

Adult, balanced Age:

- Adulthood: 24:32: --,\_\_,\_\_

- Koine: 32-40: --,\_\_,--

- Maturity: 40-48:- \_\_,--,--

Old Age:

- Decadence: 48-56: --,--,\_\_

- Old Age: 56-64: --,--,\_\_

- Death: 64-72: \_\_,\_\_,\_\_

Which is the classic 72 years, biological cycle of life and death of human beings, we shall regain when considering the cycles of History and Economics.



In the past the cycle was shorter, of 7 years, when the age of reason started, so people entered youth at 14, the age of old marriages, and plenitude at 21, dying if surviving the cut-offs of the ego paradox, around 60.

In earlier Paleolithic societies, it was even shorter, of 6, so at 12 women married, and people died on their 50s.

Now in the industrial world, the cycle is longer, among survivors, with a mean period of 9 years, so at 18 we are allowed to vote and drive machines, in the placebo world of freedom and enzymanic work. And people die at 80. The maximal being a period of 10 years, the magic number of the Universe, when people will live 90, and for the most perfect organisms, the 11 magic number (of stars in perfect spiral galaxies, mammals among animal life, the 111 sea of calm of the table of elements and so on). So the oldest among us will reach the 100 years mark, 1 in a million though.

To notice that the end is the beginning, the birth with null information about the world we live, when the old man becomes a child and forgets, before entering the dark world, down the hyperbolic ladder towards the limbo of  $\infty$  infinitesimal cellular parallels.

All this we said so you realize that it is not that difficult to understand the Universe, when you do not commit the kind of lineal blunt ego-centered errors of the western fatal attraction between militarism, physics and Abrahamic religions, which subconsciously has biased and err so much our world.

We talk then of the duality between the objective, scientific philosophers of the eastern world and the lineal concept of infinite time, hence NO end to the life, and life beyond death.

This other view is though just a creation of the mind-world.

Humans of course are ego-centered people who thought to be the center of the Universe. And science has been the fight to reduce that opinion and extend the understanding from the world to the Universe.

So first each tribe thought to be the chosen, only human thinking race in search of a valley to make it is promised, chosen land, (racist Bronze age Religions that from the Aztecs, a warrior tribe whose supreme priests, carried an Alliance Arch with the image of his God, Huitzilopochtli, carved in gold, the fetish sweat of the sun, till after crossing the Sonora Desert they arrived to the fertile valley of the Moon Lake where they murdered all the inhabitants, not Chosen of Go(l)d, and created his empire, to the Hindus who stormed the Indus valley, from the ice deserts of the Siberian Andronovo culture, on Bronze chariots, establishing castes where the inhabitants they didn't murder became inferior Dalits, to the Hebrew, or Apiru, 'those who walk behind the asses', who after crossing the Sinai desert, stormed Canaan, murdering all their inhabitants to establish the promise land, to the American Biblical modern Jewish believers on the promise land who after crossing the desert seas, massacred all the Indian inhabitants of the plains to establish the promise land, where their exceptionalist manifest destiny was to construct as many weapons as possible, and murder all other forms of life.

Oh, yes I know, there are still 4 billion human beings, who believe in Huitzilopochtli, American version (so they are about to build up a wall as their brothers of the promised other land, to separate themselves from the modern Aztecs who came, fair enough from Arizona), while the people on the other side of the other wall, angry enough become jihadist... As their prophet told them, when he found that his tribe of the desert had been also chosen to conquer the world with weapons, murdering all those who would not convert to his truth.

You see the patterns. You are a big ego. You live in a desert.

You do not understand life. But you know how to make a lineal weapon, a sword, a chariot, an arch and you set yourself to plunder the people who do understand life, in the fertile crescent, or the Moon lake or the New England forests; and because 'obviously', they are right, it is not easy to convert them to your lineal mind, and so you murder them. Or silence them. And when all is silence, alas, then you look at the skies and God send you a comet. And the Pope 'alexander' writes your verses:

'And god created Newton, and there was light'.

Till life will enter in darkness, we could add. As the physicist, keep measuring particles of God, and essay big bangs.

But as it would be absurd to keep pounding on those lesser scientists and religions of the go, without giving you the alternative of knowledge provided by the 'unknown philosophers of science', who don't make cannonballs and atomic bombs for the delight of artillery masters, we will now specially in this section, which is about the real organic, fractal, 'scientific' universe, advance a bit more on the 'road less travelled' of serious, scientific analysis of cyclical time and fractal space.

So we shall return as all time cycles to the fight of truth vs. power latter, and give you some more real food for thought.

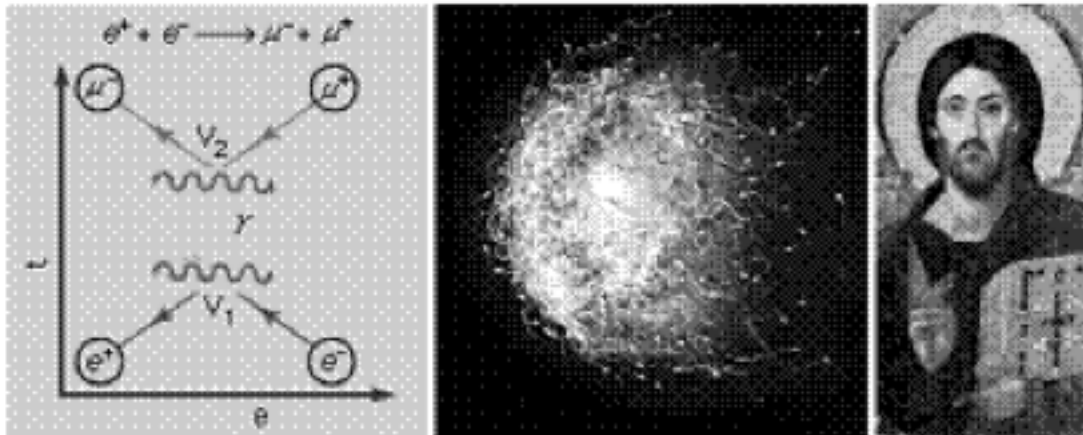
Now, though we must clarify something fundamental to the metric of the 5<sup>th</sup> dimension, the relative travels to the past, which are produced in the moment of death, but according to the ternary principle do have always 3 perspectives (those of the field of entropy, the head of information and the ST wave) – in the complex model of the 5<sup>th</sup> dimension we would always talk of 10-dimensional perspectives, but I think is good enough for those internet blogs to consider the ternary principle.

Let us then consider the difference between a travel of past-entropy or death and a travel of past-information or 'prophetic' genetic life, which is the completion of a positive worldcycle that generates a new worldcycle by a dual motion back and forward of pure seminal information.

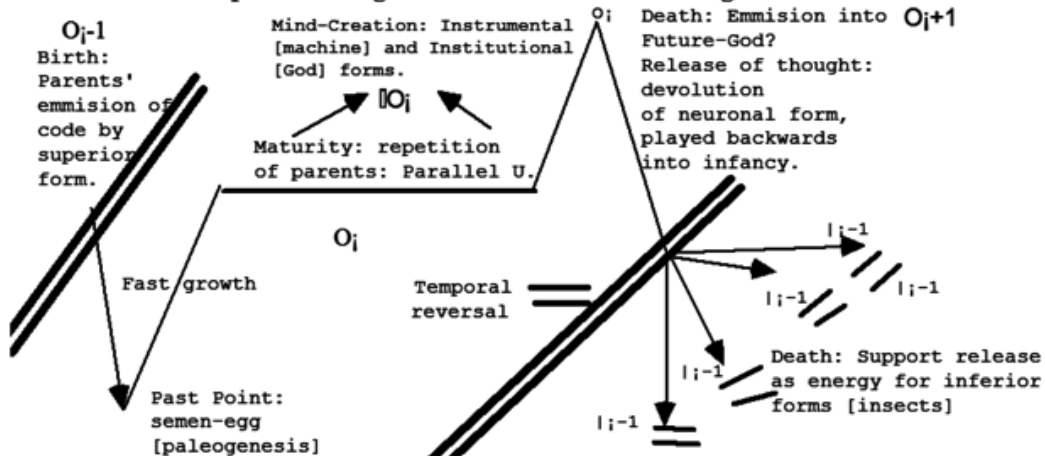
**All together now. Travels in the 5th dimension.**

It is though a creative Universe that doesn't disdain other 'combinations' of the 3 relative PRF arrows of time.

Thus we must combine motions through space (space-time actions), its sum and order through the 3 ages of time (life-death cycles) and motions through the lower and larger scales of the 5th dimension, to obtain all possible motions of the Universe, inner evolutionary motions, outer, physical motions, and 'metaphysical, existential' motions as we live and die emerging as social organisms and dissolving on those planes of the 5th dimension:



### 10. The 3±1 planes and ages of existence of human beings.



*Travels through the 5<sup>th</sup> dimension. The anti-particle that is born in the relative past point on a Feynman Diagram, as the entropy arrow that annihilates the future arrow of the particle, creating a present wave; the palingenetic seed of seminal, genetic information that is born in the relative past  $\Delta-1$  plane of organic existence to accelerate forwards with its faster, efficient time cycles that have erased all the trials and errors of topological wrong mutational evolution, to remember the perfect human beings; and the canonical memetic man carrier of the message of eusocial love, the code of information of the 5<sup>th</sup> dimension or absolute arrow of future that creates wholes departing from its lesser parts, or prophet of a civilization, which will teach its clone believers to share energy and information among them to create a superorganism of history, are 3 examples of the astounding beauty and intelligent of the harmonic Planes of reality, of self-similar, all explained by the 10 isomorphic elements described in space, time and 5D scales by the Generator equation, which for Human species are:*

In the graph some curious time travels, and combinations of time motions: an annihilation of a future to past and past to future (Feynman diagrams) antiparticle and particle, a seminal seed, travelling upwards through a 5<sup>th</sup> dimension and a

memetic, 'seminal' book of revelation, mental linguistic seed of a social organism of mankind.

And so we formulate the following statement: 'all what exists are motions through the 5<sup>th</sup> dimension', which will allow to formalize everything with 5D metric.

What it is not all the motions of time, is the simple, worldline of Absolute space-time physics. A constant motion of time, without changes of states (which make the function non-differentiable on those regions the state changes). This is a useful simplification better suited to study motions of lineal, differentiable nature, in which a change of age or state of time happens, (as from a gaseous-young, energetic state to a liquid, to an informative solid one, or through the different time speeds that define different ages of life).

### **The worldcycle of Time is all.**

Time is understood in perfect terms in the logic, Chinese age, foundation of the Chinese most successful culture of the west. The east did understand the ternary logic of time, its past, yang energy and future yin information that combine to reproduce the infinite beings of present.

How 2500 years ago, those 4 verses of the Tao-te-king in chapter one ch'ang, the function of existences, could arrive to this sophisticated level of thought, we don't know. Ch'in, the unifying, lineal emperor, who brought iron swords and weapons to China, forbade Taoism, and burnt all its rational book, only some memorized texts and magic rituals remained. It had though embedded China of its fundamental logic, in the yin-yang duality, and even the way the Chinese language constructs itself with equal subject-object dualities responds to that tuning with the fundamental principles of the Universe.

As a result the Universe have given China the biggest prize:

survival. It is the most successful culture of the world, since India cannot be considered one culture but at least two - south/northern, further split in 2, Islam/Hinduism, and colonized. China thus has the maximal GDP today at PPP, the maximal population, it has survived the longest of all cultures but unfortunately all that knowledge of the first age of understanding of time and its conservation laws is gone.

The western world is a lineal culture of visual, fetish, go(l)d and weapons cult(ure)s, today globalized, where time matters far less than space, cyclical information far less (unless properly mediated by a machine), than lineal energy, and so where 1/2 of time reality and the most important O-motions disappear.

They of course are there, but always limited by curious concepts that erase its power: clocks become uncoiled into lines, cyclical inertia mediated by an invisible centripetal force, the curvature of timespace converted into accelerated gradients, r=evolutionary panting is cubism, a lineal art not 'cyclicity' - the Taoist love for curve, all gone of our art, where even the old ionic curves have been reduced to lineal skyscrapers. So we shall regret the loss of the Taoist age of knowledge of the essence of time, for the time being.

## **WORLD CYCLES AS SUMS OF ACTIONS. THE PROGRAM OF THE UNIVERSE: THE 5 ACTIONS OF SURVIVAL.**

It is though necessary to bring the last element and likely the most important of the implications of Darwin's evolution: each of those points of view has a will, which to which he commits his existence: survival.

The will of the Universe EXPLAINS it all from the perspective of the actions of survival, as all actions in space and time are motivated by the desire to absorb more space, understood as

‘energy for motion’ and more information understood as ‘energy for position’ (kinetic and potential energy), which we shall call with a generic term, of the common language (even if it is a different concept to the mathematical equations of physics used in the 5D formalism). So we can say all systems exist to absorb and emit energy and information for the body and mind.

Indeed, know that we know what we ARE, as human beings, the measure of all things, as the most closely observed entity in existence, and we know we are made of vital spaces and cyclical time clocks, mixed in waves/bodies, that move, processing energy, gauge information, with its particles/heads and reproduce, with its waves/bodies, alas, we realize our ‘nature’, obliges us to make 5 simple actions, which ARE the program of the Universe and all its species, a VITAL program that defines all as organic, vital:

-  $\pm\Delta e$ , i: we do process and emit energy-entropy (the subtle difference between both concepts will latter be studied in depth). So we expel energy-entropy with Sp (limbs-fields) to move and we feed to replenish our energy, storing it in the body/wave. And this defines two primary actions:

-  $-\Delta e$ :  $\Delta\ddot{x}$ -ccelerations (changes in our steady state motion and direction).

-  $+\Delta e$ : feeding on energy, or feeding others when they ‘eat’ us.

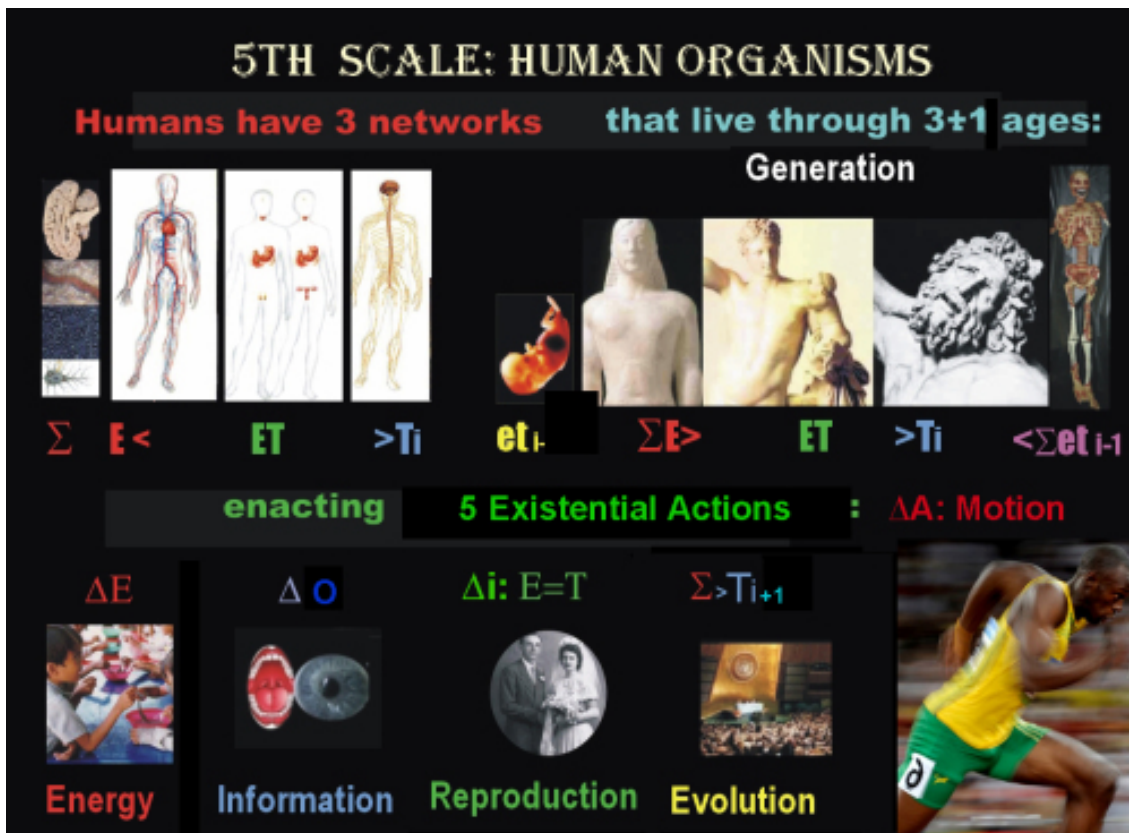
-  $-\Delta\phi$ : iterating in other region of space-time by emitting energy and form, information, with or without other being. SO all systems when absorbing enough energy reproduce, iterate, decouple, and repeat themselves, including the simplest particles of nature, quarks and electrons. And this is a yet another proof of the repetitive cyclical nature of time motions: a cycle by merely repeating its motion is ‘reproducing’.



-  $+\Delta\epsilon = \Delta i$ : absorbing, and observing reality, gauging information from a relative Point of View, which we shall call  $\mathcal{E}$

So those 4 self-evident cyclical actions of space-time, derived from our nature,  $\pm\Delta$  emir are the 4 actions all systems repeat coded by its laws of science, by the 4 quantum numbers in particles, 4 genetic letters in biology, 4 drives of life and behavior in man. This is ALL what we do. Almost...

Let us then map out the human being with all what we have learned to fully graph, what we are:



*In the graph, the Universe, including human beings is a fractal super organism of two formal motions, spatial energy and temporal information.*

We are made of a finite amount of **energy** and **time**, as when we say, 'I don't have **time** and **energy** to do this' - conscious

that our **worldcycle** between conception and extinction, is limited by death.

We are made of a finite amount of **energy** and **time**, which conforms our **worldcycle** between conception, in a **lower plane,  $\Delta-1$ , of cellular existence**, which emerges, **L**, in a **higher plane,  $\Delta$** , as a superorganism of a mass of billions,  $\Sigma$ , of cells, knotted,  $\Pi$ , by our physiological, **E**-nergetic, **I**-nformative and **R**eproductive networks, which help us to perform a series of cyclical space-time  $\pm\Delta$  actions of absorption and emission of energy and information, in 3 sequential ages dominated by each of those networks, the young, relative past age of maximal energy, the adult age of balance of energy and information or reproductive, present age and the informative old age of maximal form, as we move and **accelerate,  $\Delta\text{æ}$** , feed on **energy,  $\Delta\text{e}$** , perceive and communicating **information,  $\Delta\text{œ}$** , copy our selves in an **offspring** of similar beings, our sons,  $\Delta\text{œ}$ , and evolving socially,  $\Delta\hat{u}$ , as part of an external **Universe,  $\Delta+1$** , with social beings of the same species, till our extinction, when the arrow of growing information and life reverses its path into an explosion of Energy called death, that erases all our information, devolving back,  $\ll$ , two planes down from the  $\Delta+1$  society to the cellular  $\Delta-1$  plane.”

Now all this can be very complex. For example a ternary understanding of the consciousness now surfacing after decades! of my earlier analysis of wave-coherence in the mind is:

Sp: Past- Field-subconscious energy motion <ST: Present  
Dialog: Brain consciousness observing the action >Tf: Brain  
ego control of the action.

Now it is interesting to notice what a human being is: a fractal point, a 2-sphere, with 3 x,y, dual apertures in the 3 directions of its energetic, informative and reproductive systems (ears, y, social, parallel axis, eyes, x-form, ahead axis and nose z-

energy, perpendicular territorial axis.

It should marvel the reader that all those passive, space axis as it mouth, future create axis are the same that any other fractal point possess in its beats of existence, as it performs cyclical actions guided by those  $3 + i$  (3 senses + Mouth-active function) of its point.

The body and limbs, while important to the particle as fields and waves are in the physical space, are of not external consequence as only the head controls and has opening to the external world (beyond the seminal and excretory 2 holes of the body, ultimately controlled by the brain.

Thus what we call a field is irrelevant, a body small relevance, the particle of relative future controls it all.

We can thus by reducing the human function of existence to a fractal point of 3 spatial + temporal sensorial system of space-time actions define it also as a Fractal, the mathematical unit of the i-logic,  $\neg \text{Æ UNIVERSE}$ .

That is, we first subconsciously follow the program of actions or 'desires', or primary will, of the hypothalamus and the reflex brain (sensory-action), then we become conscious that we are acting in the present state of maximal ST (energy and information coherence.

And ONLY then the brain starts to control the action as the 'future' Coherence that collapses the action into information and 'readdresses' the action, with its 'imaginary modular' part, which will create the 'fine tuning of the action' or even repress it. Now the way we talk of consciousness and actions can be adapted to any jargon and trust me, I can use Fourier transforms, Buddhist mystical though, or bubble as an idiot when I talk of it. The bottom line is our actions and will DOES NOT DIFFER from that of any other system of the Universe.

Yet proper training allows to introduce a first  $\Delta_0$ , perceptive moment, before the natural, subconscious process of motion, direct desire for energies, action, and consciousness:  $+\Delta_0 < -\Delta_æ > e \times i = \sum \alpha \prod \hat{u}$ .

Moreover, we shall always find that 3 'topological structures' can be applied to the 3 symmetries of the 5th dimension of social evolution (cultures of mankind), to the 3 ages of time, and the 3 'spatial states'. Thus the same 3 axis correspond in the symmetry of time to the 3 ages of life; in the symmetry of genre to the 3 human types, female, male and gay/child.

– ST: Reproductive balanced culture with a dominant axis on the height and top of the head (motor and emotional axis) or psylocephalic, dominant in black sensorial, reproductive, emotional cultures, with animist religions (multiple souls) and balance with life. This is also the case of women, which are dominant in emotions and verbal thought over visual thought - and this also explains many features of the woman/male duality. Just look at them. You will see they have a tall head and a wider head with distance between the eye sockets, where the Broca region of speech sets. It is the...

– It: Informative, brachycephalic, verbal, cyclical mongoloid culture (mutated in the higher Tibetan-Altai steppe) with higher verbal Broca regions. They developed a cyclical time culture (yin=information and yang=energy, Shiva=energy and Vishnu=Information, which turn into each other ad eternal, creating the  $\infty$  beings); where the verbal word, the language natural to man dominates over visual 'go(l)d and sword, metal-memes'; able to control the hypnotic greed and violence of the western energetic metal-cultures.

They discovered agriculture (20.000 years ago, Thailand), in the original 5 rivers paradise and gave higher value to female, cyclical, informative functions. Those are the cultures closer to the concept of cyclical time and the Pantheist, organic

Universe developed by this T.Æ, which therefore can be considered the *philosophy of science for* Asian cultures, which will rise in importance as they develop further its economies in the XXI century.

The understanding of the properties and laws of cyclical time is in that sense the forgotten, most important task left to science.

An this is the culmination of that alternative, more complex way of thought, which is the true of human beings, the measure of all things.

**The program of the Universe. Æ: Mental species: Infinite knots of space-time cycles or 'minds', acting, living...**

Now we must wonder, about the Monads, or points of view in the Universe, Why they perform space-time cycles? Why they move at all? Why we need them, why they move and make space-time actions, accumulated into world cycles, which then accumulate into social planes of the 5th dimension?

*Because only by performing those cycles they survive. The program of the Universe, the will of existence of those points happen because without a system absorbing energetic motion, its motions become spent and they die. But to absorb energy they must map out reality and see that energy, so they must gauge information.*

So ultimately the answer of why things exist is simply this: they exist and perform space-time cycles because to do space-time cycles ensures their survival. if they don't they would disappear. It is not a tautology as it would seem but rather a necessity. Existence is seen by performing timespace cycles. When we don't perform them we become extinct.

And even when they do so, there are errors and others will

throw them an entropy tantrum, disorder them and absorb their energy when they die. SO they must reproduce, iterate, repeat for their form to survive.

So all systems do observe,  $\Delta_o$ , change their motions, accelerating  $\Delta_a$ , to a field of energy to feed,  $\Delta_e$ , and iterate,  $\Delta_i$ . And this are the 4 actions coded by quantum numbers, genetic letters, drive of existence, you name it. We shall find them in all systems. And finally, when they gather socially into wholes, they become stronger, and so parts become Universals,  $\Delta_u$ , and this is the 5th dimensional action, which NOT being internal does NOT have a 'code number, letter' but DOES HAPPEN as wholes survive better, multicellular systems survive better, bosons survive better, nations win over tribes, and herds over individuals.

What all those knots that web cycles of space-time, gauging them, into fixed, still mind mappings of the Universe do? SURVIVE.

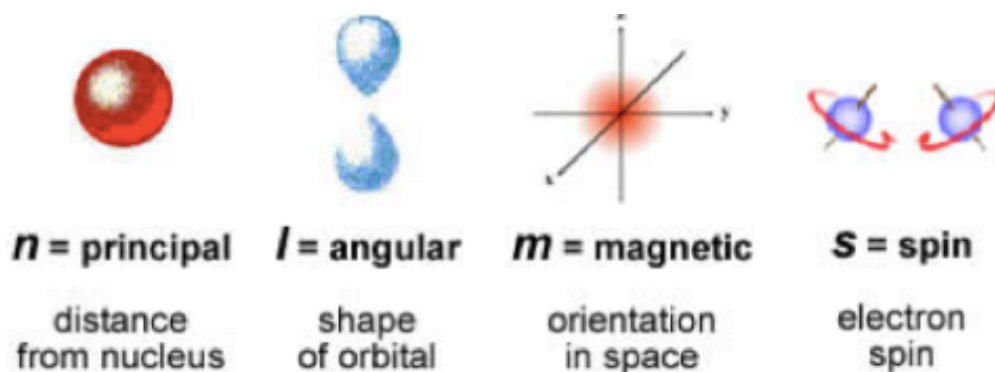
As it happens, all of them, gauge information first,  $\Delta_o$ , so we call quantum theories gauging theories. Then all absorb energy to move. And alas! when they have enough energy, even the simplest particles, quarks and electrons decouple, reproducing other quarks and electrons. Finally they communicate energy and information with other similar beings, organizing bigger wholes through networks.

So all systems do seem to have what human anthropomorphic beings consider the properties of life and intelligence, restricted of course to humans and similar forms of life: gauging information from an observer's point of view (right graph),  $\Delta_o$ , feeding on energy to move, accelerate and decelerate ( $\Delta_e$ ,  $\Delta_a$ ), communicating information and iterating with that information its form,  $\Delta_i$ , and further on evolving parts into wholes, called in philosophy Universals,  $\Delta_u$ .

So we shall use those 4+U actions, ( $\Delta a, e, i, o, u$ ), to explain all systems of the Universe and translate its physical, biological and social laws. I.e. we shall find that the 4 quantum letters code for the actions of atoms, the 4 genetic letters for the actions of cells, the 4 drives of existence for the actions of animal life.

And this, vital action system is ultimately the cause of it all. Indeed, we get old because our nervous system absorbs too much energy of the body, as information, and  $Tf$ -particles dominate the system. We could be immortal if we weren't so interested in information. *The order of the life worldcycle of system is the integral product of all the small  $a, e, i, o, u$  actions they perform. All is synchronized through those elements.*

So we can conclude this first description of the program of the Universe which all beings that want to 'last in existence' follow, as they apperceive mathematically, vegetatively or consciously, with the different mind-languages and its ternary grammars, with the understanding of the 4 quantum numbers that code particles' behavior, allowing them to obey in terms of the actions of space-time the program of 'existence' and its space-time actions:



In the graph, the  $\Delta$ -principal number codes the  $\Delta a, \Delta e$ , energy level and motion of the particle, the  $l$ -number codes its form and informative gauging,  $\Delta i$ , the spin number with its chirality

that codes the iterative,  $\Delta\epsilon$  actions, and the magnetic number for its  $\Delta\hat{u}$ , social ordered structure (organization of multiple orbitals).

The enormous complexity of studying those actions for assemblies of millions of particles can be compared to the attempts to analyze asses of human beings in their actions of consumption. Again economics and marketing of corporations do treat humans are indistinguishable computers and simultaneous networks of information (mass-media) manufacture our consent as herds, so there is NOT difference the way we do relate to humans when we adopt the perspective from above, of corporations and political polling with the perspective of quantum physicists or thermodynamics.

It is NOT the species, which are qualitative different but the way humans extract information from social masse,  $\hat{u}$ , than from individuals and the *laws of superorganisms*, studied in the first line – the common game that makes emerge through 4<sup>th</sup> postulate of  $\neg\epsilon$  networks a whole, indistinguishable from the mass of individuals that loose its individuality and become exchangeable, as the system handles information with general fields.

The same happens as we shall observe in evolution when the Earth handles its species with massive fields of energy (changes of glaciation temperatures) that determine the accelerate evolution of its species.

So T. $\epsilon$  can explain this perspectives and plug them all within the general game of existence and evolution from parts into wholes (5<sup>th</sup> more complex set of reproductive and social actions,  $\sum\epsilon=\hat{u}+1$

And once we do understand the isomorphisms of the Universe we can plug into them all the systems of reality and enter into the details of the thoughts of god.



Those ARE the ultimate forms and events of reality, of which we hardly think, because they act in words of Kant, as the ‘a priori categories’ of the mind. They are also the main windows our minds have to peer in the absolute. And its explanation in a rational way become therefore the fundamental elements of any Theory of Everything, as all what exists does so in space and time, as a system of energy and information, which is born, evolves and becomes extinct, regardless of how we classify it, either as a Physical, biological, Social or Mental System - the 4 categories humans use to explain all realities.

So I was ready to found a T.Æ based in those 3x3+0 principles: fractal space, and its symmetry with time motions, the 5<sup>th</sup> dimension of scales, each one with different species and different time clocks (studied by a different science), and the 5 actions that the ‘fractal points of view’ of the Universe, which hold in their non-Euclidean geometry a world in itself follow mechanically, vegetatively or consciously in order to survive, as they need to absorb and emit energy and information for their body and brains,  $\Delta \pm e, i$ :

$\partial \alpha, \partial e, \partial i, \partial \alpha$ , and further on evolve and synchronize its time cycles to become larger systems, wholes of the 5<sup>th</sup> dimension stronger than their parts, fitter to survive by the power of eusocial evolution by the power of love, which is the mystical expression of the 5<sup>th</sup> dimension, the arrow of future of all systems, as wholes come after parts – the ultimate meaning of the Universe.

And all this could be embodied in a simple generator equation of space-time 5D fractal systems:

$$U = \infty [\Delta-1: \sum Sp \leq \Delta: \approx E \times T \leq \Delta+1: \prod Tf]$$

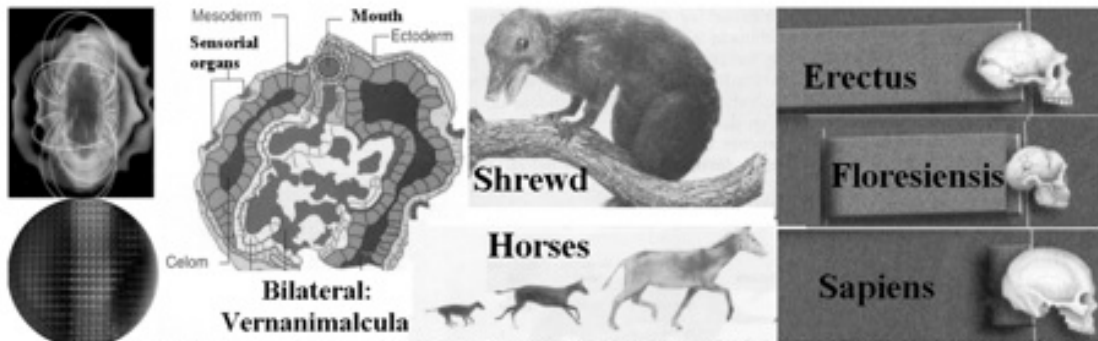
For each fractal system of the Universe made of a mass of cellular,  $\Delta-1$  micro-particles, loosely connected,  $\sum$ , into herds, which shared energy  $<$  and information  $>$  with a body ST.

## PART II. TIME-SPACE BEINGS.

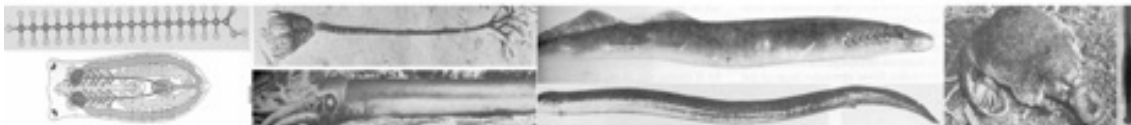
### Topological Evolution: the 3 horizons of species.

Topological Biology proved equally fruitful, because those 3 topologies corresponded to the 3 physiological networks and systems of all living beings. Thus, there was also a topological 'plan of evolution', the 3 Horizon of all species, limited by those 3 only topologies, as all of them evolved from a first lineal, energetic, top predator age, into a reproductive balanced form and finally raised in height to become dinosaurs, birds, or human beings, tall in the dimension of height, the dimension of information:

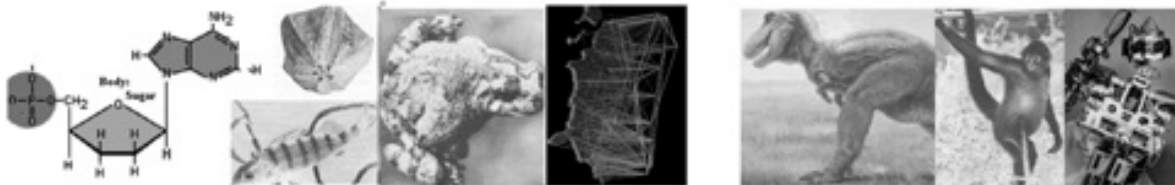
#### CONCEPTION AS A BLACK HOLE OF MIN. SIZE = MAX. INFORMATION



#### YOUTH AS A LINEAL, ENERGY, TOP PREDATOR SPECIES, GROWING IN SIZE



#### REPRODUCTIVE MATURITY: III AGE: GROWTH IN HEIGHT=INFORMATION



In the graph the topological plan of evolution or different families of life and engineering, fats that become nucleotide and spiraled long DNAs, fishes that evolve into vertical forms, flat amphibians that rise their legs to become dinosaurs, flat monotremes that become mammals and rise into apes, lineal

machine--weapons that grow into tall robots.

Evolution has a third entire unknown sub-discipline besides 'Darwinism' and 'genetics' 'topological evolution' that explained why so few variations and homologies existed among species, why evolution even if it was chaotic did only evolve into ternary species.

So we can apply this topological evolution also to humans.

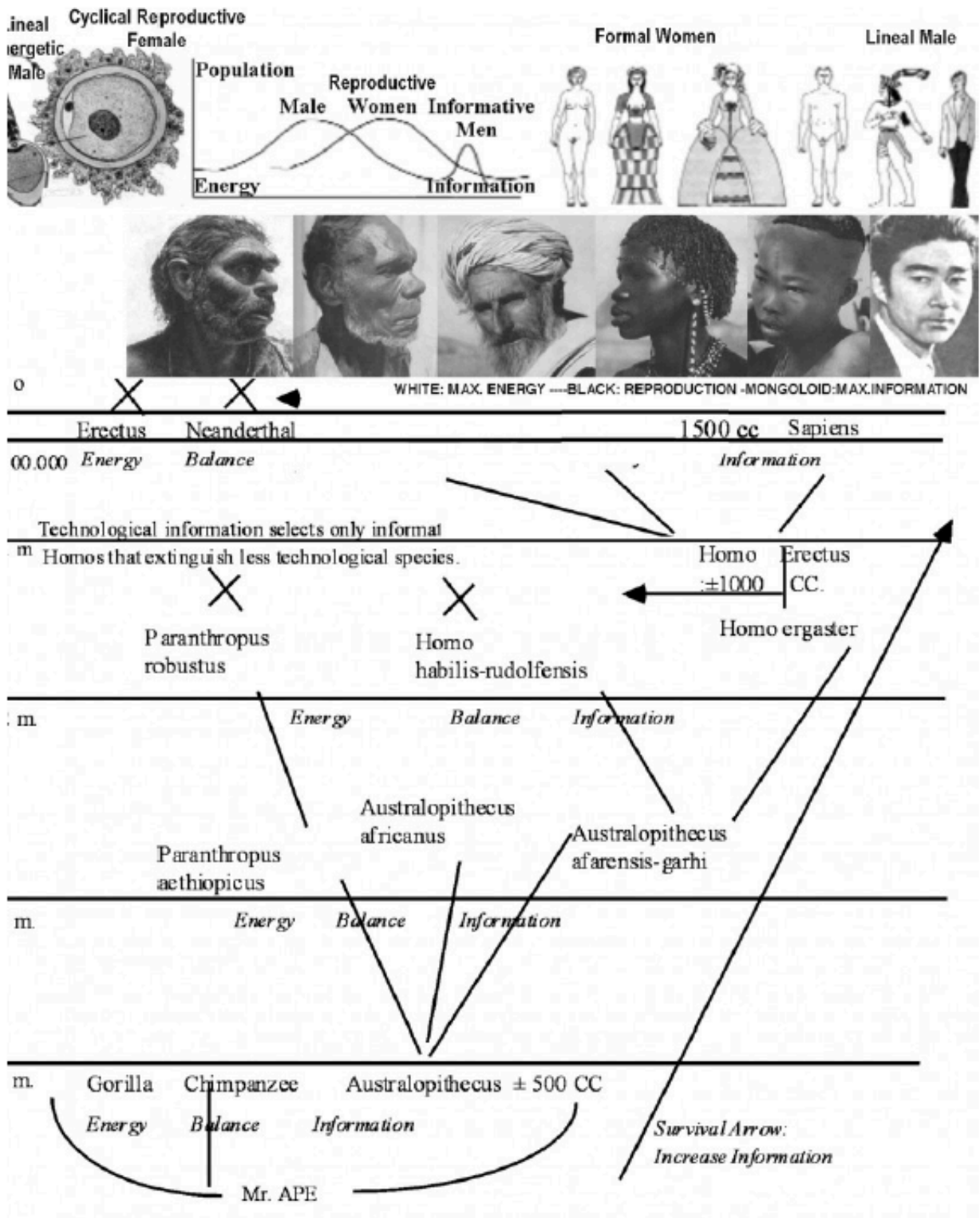
### **Anthropology: Ternary mind cultures:**

The topological language of evolution was the key to understand the evolution of mankind, anthropology that solves the 3 species, the gender varieties, the 3 mental races, of tall brains (emotional axis, psylocephalic black races), long brains (dolichocephalic, visual, energetic white races) and the wide brains (brachycephalic, mongoloid verbal races):

In the next graph, in complexity biology systems decouple in 3 varieties of max. energy-force, max. information and max. reproduction, the 3 main drives that ensure survival.

This simple rule allows to classify the diversification of species, including the Homo. Yet the dominant arrow is information, so at the end the gorilla-chimpanzee-Australopithecus, max. energy (gorilla), max. Information (austral), max. reproduction (bonobo), chose the Australopithecus, and then again in the next decoupling till arriving to the 3 'mental races->cultures', the white, lineal, energetic; mongoloid, cyclical, informative, and sensorial, reproductive, vital black mind-cultures.

It is the solution of the 'Plan of Evolution' based in the 3 'limited' topologies of the Universe, which correspond to the morphologies of energy, information and its balanced, reproductive combinations.



$Sp(\text{white mind/energetic male}) < ST(st)(\text{black brain/gay sex}) > Tf(\text{Informative mongoloid/woman})$

So species evolve in those 3 eternal variations of the same theme, from lineal, energetic men to informative women and the intermediate sex, to the 3 human races, to the 3 'topologic varieties' of evolution, to the 3 ages of life, function and form always rhyme. In the first picture we see the 3 'ages' of evolution of most species. Below the differentiation of human species, into energetic, reproductive and informative ones.

The evolution of apes into human beings shows the main procedure of nature in the process of 'differentiation' of species along the 3 'fundamental' possible avenues of a ternary organism: improvements in energy system, information systems and its balanced reproductive networks.

Thus the original ape species can be differentiated into 'energetic' stronger animals (gorilla), informative 'Australopithecus', and balanced, reproductive 'bonobo chimpanzees', our closest species, dedicated all day to 'fuk' (-;

Next the human species took over, and again evolved in III Horizons of increasing information, (500 cc Australopithecus, 1000 cc homo erectus, 1500 cc homo sapiens) mankind arrived to the final racial differentiation, in which the dominant informative verbal homo decoupled into:

– Sp: White, energetic, visual, lineal dolichocephalic race/cultures (with higher mixture with visual Neanderthals in Europe); which explains the cultural nature of the western world, based in constant, lineal motions, from its vision of lineal time, to its love of violence and energetic weapons (which deliver lineal motions), to the dominance of T.Œs based in physics, 'the science of motion', whose wordily religion is to make weapons and consider expansive motion aka entropy≈death and its big bangs, the meaning of existence.

This 25 years old prediction of the T.Œ model, based in the Generator Equation that diversifies species into Sp, Lineal,

energetic varieties, Tf, cyclical informative ones, and then crosses them to create a balanced, reproductive radiation of ST forms, is now being proved. Thus cultural memes depart from the 3 mental races, which promote the 3 'axis' of the brain:



*In the graph, one of the key ternary differentiations of T.Æ - the 3 dimensions of spatial, 'diffeomorphic' systems applied to the Human Head. All systems do follow the ternary principle, according to which each 'ternary element' can be further subdivided in 3 sub-species. It is the fundamental principle of creation of the Universe.*

In the Human 'mind', the 3 axis become the foundations of the 3 dominant languages/wills of the 3 sub-human races: dolichocephalic white men, with higher Neanderthal, visual content and its lineal, energetic cultures/memes, among which the lineal, Abrahamic religions and lineal concept of time, and lineal, violent obsession for weapons are distinctive features; the verbal, mongoloid race, with cyclical temporal concepts, and the balanced, sensorial black race.

Anthropology did recognize 2 axis but failed to understand the 'height axis' of emotional and motor, higher development. 'Energetic, Intelligent and Good People' would be a layman, topic way to describe the 3 cultural races. They are complementary and in the 'Perfect world' nowhere to be seen - an ideal world ruled by T.æ and the principles of the organic Universe, similar to Hesse's Castalia, each will complement the other.

# TRUTH IN SCIENCE. T.Æ=SC<sup>3</sup>.

What is reality should have become obvious at this stage, if any of the finitesimal points of view, self-centred in their ego called humans have had the patience to arrive here. But we shall repeat it, in the initial definition we made of 'All what exists':

"The Universe is the sum of all the symmetric, ternary super organisms (spatial synchronous view) performing a world cycle of 3 ages between generation and extinction (diachronic point of view), as they travels through 3 relative planes of the 5th dimension, growing in size and diminishing in a balanced, Sp x Tf=  $\Delta\pm 1$  survival form, performing from its centred point of view, the 5 space-time actions of absorption and emission of energy and information, (active meaning of space and time),  $\pm\Delta e, i, f, u$ , which ensures their survival."

In this definition, where we can introduce everything, the classic analysis of locomotions in lineal time of physics is just a little letter at the end of it,  $\pm\Delta e$ , that is the study of energetic motions, locomotions and its internal and external storage.

So much for those who think physics explains it all and it is the fundamental science of mankind.

Let us then return to philosophy of science and summarize all those findings into...

## **The isomorphic, linguistic method of scientific knowledge.**

The Universe speaks 'infinite languages' (Upanishads) NOT only mathematics. And each of its elements *had the following minimal properties*, which I called the isomorphisms of the Universe:

- A **Æ** linguistic, **mental** point of maximal information (C.P.U., quark, crystal, brain, roots, black hole and so on), which constantly switched between the 4 states of space, time, energy and information, the 4+ $\hat{u}$  actions developing the game; whose equations were crystal clear in quantum (4 numbers), Electromagnetism (3+color dimension), Electricity (4 Maxwell equations), and easy to deduce in Mechanics (i.e. Hamiltonians describe its 3 time ages, 4 vector equations, etc.)
  - A **topological**, Organic, Synchronous, ternary structure in **space**  $Sp < ST > Tf$ , of limbs/fields < bodies/waves > heads/particles.
  - And its asymmetric, Diachronic, **causal** order in **time**,  $Sp$  (Past, entropic youth) >  $SP$ , Present Adult reproduction >  $Tf$ , Future, Formal, Old age of information; from where topological laws of development and evolution and the ages and horizons and diversification of species could be obtained.
  - An **organic** structure in the **5 Dimension** of  $\Delta-1$ ,  $\Delta$ ,  $\Delta+1$ , quantum/cellular, individual, Thermodynamic and Gravitomagnetic, ecosystemic Planes.
  - A **survival, program of existence** through  $\partial a$ ,  $e$ ,  $i$ ,  $\alpha$ ,  $\hat{u}$  **actions** that obtain  $\pm \Delta e$ ,  $i$  and evolve into bigger wholes.
- Now each science does have its own jargon, and 'choice' of characteristics it prefers to describe from its elements of study, under the ego-paradox that makes each point of view to create a 'particular world' that distorts the 'whole Universe' into its perceived linguistic mind, with itself at the center and only relevant point of view.

We have in that sense criticize physicists from their description of physical reality ONLY from a mathematical, spatial, point of view, and ONLY describing of the 6 motions of reality, its Locomotion, making a confusing distorted vision of what time is in lineal terms and space is in continuous terms, ignoring completely the laws of the 5<sup>th</sup> dimension.



But we have generalized the concept to the quantum and Antiquantum paradoxes for all physical and social sciences, in which either the observer is too small (social scientist) or too big (physicist), to relate objectively to the observable (which in social sciences is so big that is guilty to deform the sociologists to cater its view, and in physics is so small than the physicist is guilty to distort it.)

And for that reason only biological sciences do have a proper point of view. But even in biology the cultural influence of social sciences is all too evident, as 'the concept of chaos and entropy', from physics and 'Darwinian, capitalist, self-made man individualism' sips in.

So it is taboo to talk of the fundamental law of social evolution which is social love of members of the species to become larger beings, which is epitomized in the most successful species on Earth, the Argentinean Ant which has excluded from the pampa all other top predators of larger size, and now is colonizing as we speak, under my foot South Europe, becoming the largest, most numerous species (1/4 of all the flesh living in this planet is ant, another 1/4 humans, the 2 social species).

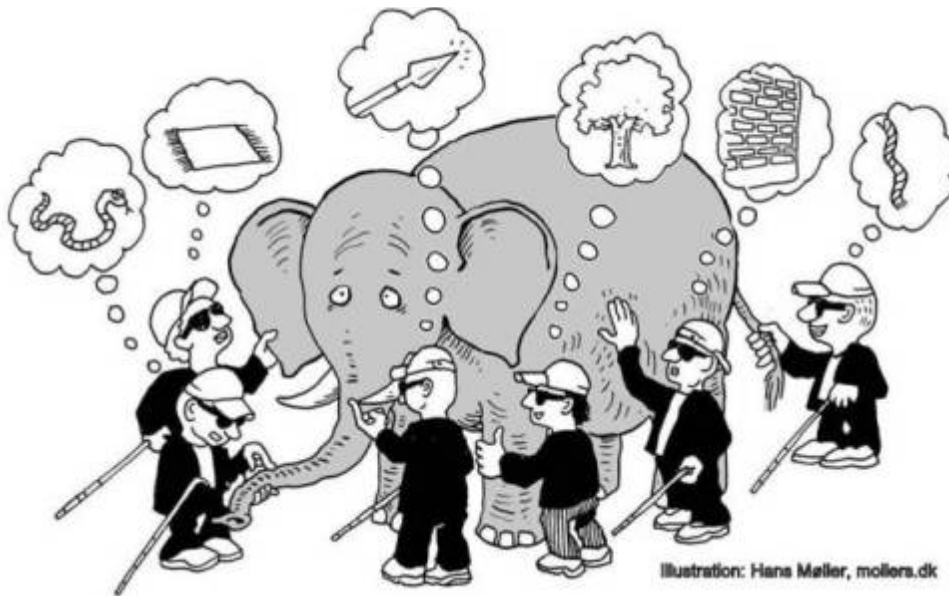
On the other hand the concept of entropy as chaos prevented to understand the topological plan of evolution, controlled by the fact that we are made only of space and time, and its similar 'active' concepts of kinetic energy and information.

So the explanation of why wings are planes of space and eyes spheres of time... and have evolved so fast, is ignored. The reason though is obvious in T.Æ, a system to survive has only 3 paths, maximal Tf in its spherical organs of information, maximal Sp, in its planar organs of kinetic motion and maximal reproduction, improving its networks of communication, either individual or social. And so this implies with the limiting existence of only 3 topologies in the Universe, that those 3 natural paths can evolve very fast, as genetics do

work also in ternary symmetries that code those forms.

Further on from physics, biologists have acquired the idea that all comes from the bottom up, so they do not understand the duality of hyperbolic information vs. elliptic motion, which makes also the upper wholes program through larger fields of motion and form, entropy and information, space and time, kinetic and potential energy, lineal and angular momentum variations (all concepts self-similar of the fundamental duality of the Universe, which apply to different systems), its smaller parts. The most obvious case is the relationship between glaciation ages of maximal evolution of information (as cold temperatures imply form) and hot periods of maximal reproduction, (radiations of species) and the whole structure of evolution of the Earth in III earths and  $3 \times 3 + 1$  sub-phases.

And so for each species and 'scale' studied by a science, we needed to extract mental, topological, causal-logic, and organic-survival properties, which were different linguistic, isomorphic angles on the perception of the being, none of them carrying the whole truth of the being, but as the famous elephant parable, seeing only a part of it.



(:A bunch of physicists studying 'non-lineal elephants' :)

In the graph, the linguistic isomorphic method considers that all systems of the Universe are made of the same 2 formal motions of 'temporal energy' - lineal and angular momentum; potential and kinetic energy, particles and fields; heads and limbs, which combined to create the 'living systems' of the Universe, that organize into social herds and organisms, new wholes of a larger 'scale' of the fifth dimension.

Thus we can extract from those 3 primary elements: lineal energy, cyclical time (and its 'fixed forms': space and information) and its social, relative ternary scales, which co-exist together (the  $\Delta-1$ , quantum/cellular;  $\Delta$ -thermodynamic/organic;  $\Delta+1$  gravitational, social, ecosystem planes), 3 type of laws common to all beings or 'isomorphisms'; which we further subdivide in 3 sub-sets. It is the isomorphic, linguistic method that extracts topological, mathematical laws derived of the spatial energy of all beings; logic, causal laws derived of its cyclical temporal nature; and organic, social, survival laws derived of its existence across scales of the 5th dimension.

Yet those 3 x 3 isomorphisms require a final element without which systems would not 'exist': I think therefore I am. Indeed, all complete 'worlds' do have a 0-point or mind, whose spherical topology allows the system to shrink the Universe into a linguistic mapping mirror of reality, or mind, which extracts the information on the outer cycles of reality the system needs to survive. It is the point of view of the system, its c.p.u., quark, black hole, brain, eye, which apperceives reality and performs the necessary actions for the system to survive, by extracting energy and information from the Universe. Thus we shall consider 3 x 3 +0 isomorphisms to describes all the systems of Nature, and the forms created by man, with its internal mental languages (art forms) and external atoms (mechanisms).

Scientists of each science that studies a different scale of the

fifth dimension cannot apprehend the whole properties of each species, but see on them only the properties their science studied initially - mathematical, lineal time properties in physics, organic properties in life, and so on.

But all the blind people - each disciplinary science - sticks to the properties their disciplines know more.

Only Leibniz seemed to have 'seen all the sides of the elephant' and that was 300 years ago when he told 'physicists' like Mr. Newton, who would not receive him - so proud he was of his silly-nilly formula - that duration,  $t$ , was the sum of infinite time cycles with finite length. And as those time cycles broke space into inner and outer regions, space was also fractal, the pegging together of infinite time-space cycles. He called this relational space-time, the forebear of 5d fractal space-time cycles.

Einstein said Leibniz was right but to fully understand him, we had to start western science from scratch. Which is what I did and this blog will show. A theory of unification ( $T.\infty$ ) of all the space-time species of all sciences under the old-new concept of a time cycle.

This 'synthesis' however was eliminated from science when lineal time simplified the concept of time cycles, and made the knowledge of the rhythms and forms, the information of those space-time motions and its cyclical patterns of evolution, irrelevant to 'physics', simplifying enormously the nature of time and the beings that flow with

But with the arrival of physical time, science lost the concept of  $\infty$  Time cycles, which tick at different speeds. And create different world cycles, of life and death, different motions, different forms. The measure of this loss was evident when Einstein regained the concept of multiple time clocks in Relativity and when he tried to explain it, he said astonished, 'i

seem to be the only physicist who thinks there are infinite clocks in the Universe running at different speeds'. Nobody understood what he meant. Not even himself.

It is thus clear that the methodology of T.Æ is to study *all systems of the universe, with all its elements*.

So back to the method, how we put all this in a working perspective? Well it is kind of too much isn't? (-; But trust me, if people wanted to improve its mind it would have been easy. The question is they are stuck to their jargons, so the heliocentric theory of this Copernican amateur is not easy to explain, nobody takes seriously the Vishnu child, the little prince who sees the elephant behind the line. But we shall try.

In fact the best way would be to formalize it strong from the beginning. That is to throw a generator equation with 3 space symmetries 3 time ages and 3 scales of the 5<sup>th</sup> dimension with a O-point that cements it all, that is  $3 + 3 + 3 + 1 = 10$  parameters and study them one by one.

This is how I work, I call it...

### **The $\text{Æ}=\text{Sc}^3$ method of reasoned truths.**

For those who stumble here, this is a blog by a Philosopher of Science, on T.Æ, a 'Theory Of Everything', based in the rediscovery of cyclical time clocks, a concept, so obvious in Nature and the systems of time measure, which in the Eastern world was the basis of its religious philosophies of the Universe (Taoism and Hinduism) and in the West was natural to the Egyptian, Babylonian and Greek tradition, followed by Leibniz and his concept of relational space-time, of a Universe made of 'fractal, vital spaces' (the entities we see all around us), which lasted a finite time cycle (its cycle of creation, evolution and extinction).

Indeed, a historic analysis shows that ALL civilizations always thought time to be cyclical except the one who developed the western global military empire, by using first lineal iron swords and then lineal gunpowder weapons. And we shall see immediately how linearity became a necessary tool to develop 'Germanic iron swords and gunpowder weapons', and the close connection between lineal physics and people who culturally belong to the culture of weapons.

We are going to explain the whole world here with only those 3 time motions, its spatial symmetries and ternary co-existent planes of the 5th dimension that creates an  $\mathbb{E}$ -rganism a point-particle, a knot of cycles of timespace, of which we are all made, which lives a world cycle, made of stop and go beats of information and motion, actions of perceiving and feeding, either perceived as a 'dynamic flows of time cycles', or as a series of 'still photographs of static space', (as the duality of a movie, made of stills. We exist as a series of small derivatives, that measure and put together all those time cycles into simultaneous 'slices' of space':

- $\partial t=S$ ; which added together,  $K(v) \times \partial t=S$  creates the steady speed of time motions we see around us,  $v=S/\partial t$ .

This is what we are, a sum of multiple time cycles, knotted into simultaneous synchronous flows of time, seen by the static mind that perceives them, as a series of still pictures of space that put together the fractal puzzle of the world.

And so with this duality of 3 time motions and its corresponding 3 spatial forms, we shall resolve, logically and mathematically, all the questions unresolved in science due to this huge simplification of cyclical times, the ultimate 'formal motion' of the Universe.

Since as it happened when Copernicus put the sun in the center (the conceptual advance) and Kepler and then Newton realized this simplified enormously the equations of the

Universe according to the Principle of Truth called Ockham's razor (which we shall call here 'Simplicity', S), the 'Universe is simple and not malicious' (Einstein). So once we understand time cycles, the 5 main parameters of truth of science will work to explain it all 'simple' and not 'malicious'.

We put them in a formula that paraphrase Einstein's:  $\mathbb{E} = S c^3$ ; which of course adds the so often forgotten O-bjectivity, which is at the heart of most of the errors, disguised as science today. So we shall talk of Logic Objectivity and Experimental evidence as the two fundamental parameters of any theory of truth; which implies Minimalism (simplicity), Correspondence with previous theories and cyclical predictability:

-Logic **O**bjectivity is essential to science, and it is today lost to absurd theories like the big-bang, the creationist, militaristic theory of cosmology, capitalism, the subjective dictatorship of bankers, mostly of biblical cultures, who think to be chosen of go(l)d and monopolize the right to print the language of social power, money in private hands and of course creationist theories of biology, nationalist theories of history that deny the unity of all human species, which should help each other to survive as a single species, and mechanism, which requires a God to create the machine of the Universe, unlike the organic theories of this blog.

Logic Objectivity is thus the right objective information that the  $\mathbb{E}$  as observer point must fight to avoid the natural subjectivity of all points of view - because that is the true fight of science; and such objectivity requires rational evaluation of:

- **E**xperimental **E**vidence will show ALL to be a part or a whole cycle of time motion, including a lot of phenomena observed but not explained.

- **S**implicity, , will show that Time cycles explain many more things than the previous Time paradigm (Lineal Time, either in

the Galilean or Einsteinian formalism). It does in fact explain it ALL, as Experimental Evidence will show all to be a time cycle.

- Correspondence will show that it also explains the previous paradigm, including Galilean and Einsteinian formalism as a 'limiting' case of a time cycle (that is a small part of it).

-And, yes, Complexity born only of the iteration, and ternary symmetries of the 3 arrows of time and its ternary symmetries in space and the 5th dimension

Indeed, we stress in T.Æ, the formula that resumes the 'objective experimental elements' of the scientific method:  $\text{Æ} = \text{Sc}^3$ , whereas Æ stands for the **O**bjective, **I**somorphic, **L**ogic reason that must guide the interpretation of the information obtained by any point of view through **E**xperimental evidence. In that regard once more a single letter, Æ, breaks into the 3 elements it compose it: O,L,E.

Any œ point of view will absorb energy and convert it into information in its mind, adapting that evidence to its subjective, selfish point of view. This is natural to the equation of any mind and so a scientist is by no means immune to that bias. It is precisely the awareness that always we tend to bias information what guard us against all kind of 'theories' of reality, based in scanty data, or the use of a single language of truth (mathematics included) to evaluate that data. So truth is higher when more languages are used to evaluate truth, when more logic reason is included.

The organic paradigm stresses the multiplicity of Linguistic, Logic points of view – at least the  $3 \times 3 + 0$  10 dimensional perspectives of the 3 scales and 3 space-time elements and the o-point that puts them all together.

**The 10<sup>th</sup> dimensional view: sub-systems**



In that sense there is a clear more complex formalism of 5<sup>th</sup> D metric: a 10 dimensional analysis of the 3x3+0 subsystems of most organisms, from the 10 dimensional formulation of the supposedly simplest strings to the 10 *Physiological systems of the Human being, in which the 10<sup>th</sup> system, the nervous system is the whole that integrates all other forms.*

*10 is indeed the perfect number, the tetraktys of the Pythagorean, 3 x 3 sub-systems dedicated to reproduce, information and energy in the 3 scales with the 'black bole' in the center of the 3 triangles, coordinating them all and connecting the system with the above  $\Delta+1$  social larger scale.*

Any point of view or analysis thus becomes objective when it adds the 10 logic and multiple Language views. If we consider the total truth of a being, 1, a probability that only the being carries in itself we can establish a simple rule for the Organic method :

*Max. Truth = Max. Objectivity = Max. Linguistic Logic perspectives on Max. Experimental evidence.*

In this manner logic information illuminates Experimental evidence. And this is what most scientists do not respect even if they think they do. As there is always working a subjective, subconscious subliminal interpretation of data to favor the ego paradox, the point of view of the individual, nation or tribe.

Which leads to the next parameter of truth in science:

- **Cyclical predictability**, as all laws of science are based in the cyclical nature of phenomena that do repeat in time, and so we can predict the future of the species we study, as this writer has been doing for decades in all sciences (easily proved in papers, printed books and copyrights at Library of Congress since the 90s), with the theory of time cycles, which includes among many others:

The prediction of the present crashes of the economy (2001-2008-2016 crashes of overproduction of chips and its main software e-money, easily calculated with the classic Volterra equation of 'saturation of ecosystems', outlined in this introduction).

-The existence, proportion and nature of dark matter (95% of the Universe), and the dominance of Black holes on the cosmos and the proper understanding of the increasingly accumulated errors of big-bang cosmic theory, and the spooky interpretations of quantum theory.

-The importance of eusocial evolution, based in common languages of information as parts become wholes, only now recognized.

-The existence of topological evolution, which resolves the horizons of species and its 'strange' capacity to evolve so fast, so right in so short periods (punctuated evolution, slowly being accepted today), scientifically without need of cuckoo creationism.

-The importance of epigenetics, which implies higher 'units' of genetic coding in 'larger' ternary groupings, sentences of the genetic code, not only 3 letters to code genes (as time cycles put together 'space-steps' into larger ternary cyclical structures, building an architectonical '5th dimension' of parts that become wholes, the TRUE ARROW of future of the Universe.

-And as part of that topological process of evolution, the existence of 3 'axial mind races' derived from the crossing of the lineal, visual, long Neanderthal mind of the white man, the cyclic, informative, wide, verbal Mongoloid and the reproductive, tall, emotional Black mind; and the 3 equivalent 'human genres', the verbal woman, the visual man and the emotional child.

A theme, which as we shall see when dealing with the anthropomorphic, ego-centered paradox of humans, especially intense, makes people anger. We, as we all know are the center of the Universe, *by decree*, and this is the only thing that matters, a fact defined by the equation of the mind:

*O-mind (infinitesimal point of view)  $\times \infty$  observed universe of space-time cycles = Self-centered mind-world: knot of time cycles.*

Alas, we shall also explain all the syntax and grammar of all the languages of the Universe, and the self-paradox, as we see from our knot of space-time cycles, that all the space-time cycles we see 'COME TO US', the center of the Universe. never mind all other points of view or 'monads', are also centers of the Universe, and all of them see only a very reduced part of that Universe, being most of it that 95% of dark matter-energy, structural to the infinitesimal ego that must select information, from his selfish point of view. So alas, each nation, each race, each gender is superior or at best equal to all others.

Funny though is that in the case of human genders and races of the mind they are 'complementary'. And that is slightly more complex and beautiful, because it obliges them to come together to be 'better' as a whole than as parts.

As evolution constantly creates 'lineal' entropic, spatial, moving elements; cyclic, temporal, informative ones and crosses them, into 'present', reproductive, balanced forms: |  $xO=\emptyset$ , the simplest of all equations of space-time 'creation' in the Universe.

Indeed, all is yin=Vishnu=cyclical information  $\times$  Shiva=lineal energy=yang that combines to create the  $\infty$  fractal space-time beings that configure the Universe (yes we do also explain arts and religions here, even those who are pure bigotry, because all does have a reason when it exists and also a reason why it

becomes extinguished). Which bring us to the next parameter of truth:

-**Coherence:** The Whole must be coherent with its parts, it must not require further elements and it must be coherent with the syntax of the languages of the mind it uses to explain reality, which must mirror it. And yes, we shall see how there is a Universal grammar, first understood by Chomsky et al for verbal languages, common to all mind-mirrors, with 3 elements, one for time-information other for energy-space and the third active element that combines them:

Subject (information) < verb (action) > Object (energy of subject).

red (energetic color code) < green-yellow > blue (informative color code).

F(x): time function = (active operandi that transforms one side into the other) G(y) space function.

Length-motion (space dimension) x Height (informative, time dimension) = Width (reproductive dimension),

which defines the form of most entities of space-time so your spherical, informative time head is in the height dimension, you move energetically in the length dimension, and your bilateral reproduction of cells happens in your width dimension.

AS WE ARE ALL space-time fractals. And the Evidence=Minimalism x Correspondence x Cyclicity x Coherence, method of truth will show you that to be the case:  $E=Sc^3$ , is the equation of truth, a bit more complex than the one of physicists (-:

All this said 5D strictly speaking is in most of its formal

structures a 10 Dimensional theory of 3 spatial components, 3 time ages, 3 scales of size-time speed and a 0-point pegging it all together, but not to scare too much the 'primitives' I decided, given the idolatry to Einstein and his 4D concept specially among all those who have no idea of what he meant (the immense majority) to call it 5D.

So we call the 3 dimensions of time, 3 ages, whereas 4D-time is the present age of time. And then we stress the symmetry between the 3 dimensions of space and the 3 dimensions of time.

And we treat the 3 co-existing scales of the 5<sup>th</sup> dimension, as 'planes' or scales (properly scales would be the 10 sub-scales of 10 social groups between planes, such as  $S_0=1$  individual,  $S_1=10$  family of 3 generations,  $S_2=100$  tribe-friend networks and so on).

But for a formal analysis of it, most studies will be analysis of systems through 3 scales and 3 ages or 3 scales and 3 spatial organs, and many other 3 x 3 combined analysis with a 0-point that fusions them all.

And since in mathematical equations each 'variable' is called a dimension of a 'phase space', most formal studies in different sciences, we can consider to be 10 dimensional.

So the 10 Dimensional concepts works much better for the full  $\neg\mathcal{A}$  model, and that is how the top-complex formalism of T. $\mathcal{E}$  was originally written 24 years ago.

So one can imagine if we are still here by 2140, some Chinese congress on 10D (I doubt westerners too much caught on their egos and weapons and jargons and idols of the tribe will ever care for it), will rewrite the whole thing on the proper 10 D formalism.

In that sense 10 Dimensions means today many different formalisms that study systems along 3 space fractal parts, 3 temporal ages, 3 scales of the 5<sup>th</sup> dimension. 10 parameters to fully describe a system, which are 10 parameters in General relativity 10 parameters in string theory, 10 systems in physiology, 10 is then the number of the game...

We have so far settle down just for the study of  $5+5 = 10$  isomorphisms.

Now this is the formal view. You tell me you want to study a human being? Fine, I give you the generator, and then the 10 physiological systems studied by scientists and then we are in business,

And in each of those systems there will be a Tf dominant part, with a o-point, which is the 'soul-self' which is from where the actions of space-time of the being depart.

So in the human case we would consider obviously the 'self' (never mind where it is exactly in the brain, I have my opinion – which as I haven't had an entire roster of researchers and specialists to consult will so far consider opinion not truth), but anyway this self is in the Tf-brain for sure, and it is where you decide how to switch between your 5 modular actions never stopping as s formal motion in time, just switching between  $\Delta I$  (informing yourself, what you do now),  $\Delta e$  (fed up going to feed you with some food not for thought),  $\Delta \alpha$  (moving along your way to the kitchen),  $\Delta \omega$ , what the hell lets have some fun going with my girlfriend in the ultimate final goal of reproduction, and socializing in the path to that goal  $\Delta \hat{u}$  with other human beings.

So does the electron where the 3 quantum numbers, solutions to the Schrodinger wave are the 3 'dimensions of simple actions'  $\Delta \alpha$ , the principal number,  $\Delta e$ , the secondary number,  $\Delta I$ , the 3<sup>rd</sup> magnetic numbers,  $\Delta o$ , the reproductive spin, and

the external magnetic field (Zeeman effect) will make it all socialize in harmony.

Yes, I have on purpose put you the 2 extreme examples from your point of view, the human  $\Delta_0$ , that you consider by the ego paradox is sooo special, and the minimalist particle known o man the electron (well there is also the photon and the neutrino even smaller but they will also show the same arrows, for example light does have the arrow of motion and reproduction,  $\Delta_{\text{æ}}$ ,  $\Delta I$ , called c-speed, that moves and reproduces the wave, and perpendicular to it, the arrow of energy  $\Delta e$ , called the magnetic field, and perpendicular to it, the arrow of information,  $\Delta I$ , called the electric field and so what you call the dimensions of space-time, in your Euclidean space-time light universe are actually for the photon, its function of existence. and what about social life, does a photon have social life? (-; likely more than you if you are reading this text, LOL, sorry well, it is called color, colors are social photons, group of them H plancktons in social frequencies.

So where it is the 5<sup>th</sup> dimension? All over the place, sustaining us, warping light into particles into atoms into molecules, growing socially into wholes that become units of new wholes.

And all can be explained with the generator.

But we will not sue here, the 10 dimensional formalism, as physicists might complain. We shall merely consider the generator a 10 dimensional equation, or 10-parameter equation and study the isomorphic laws of all systems in the following order:

- 1) defining the generator and its 10 parts
- 2) studying the spatial ternary parts of the system that define it in present space

3) studying its 3 ages of life

4) studying its 3 planes of existence

5) studying its o-point and the actions, æ,e,i,œ,û that conform its program.

This is the basics of it. And it will give us all the fundamental perspectives of the system, its organic  $\Delta D$  co-existence its temporal logic causality its spatial, mathematical topology and its mental o-point will.

Then depending on which system we study we will widen this 5 basic analysis with 5 related quantitative or detailed further analysis, the 6<sup>th</sup> isomorphism of social classes which study how those parts, two by two relate to each other (heads with bodies, bodies with limbs, limbs with external fields of energy etc. etc.)

The 7<sup>th</sup> isomorphism studies quantitatively the generator and the relationships between the parts, and its ratios, the  $Tf/Sp$  density of information and its inverse  $Sp/Tf$  density of energy, the  $Sp=Tf$  constant of present actions, etc. Those are elements, which are essential to physics.

Then the 8<sup>th</sup> isomorphism considering those elements allow us to study varieties, creative variation of the species we must analyze. While the 9<sup>th</sup> isomorphism study variations of social evolutions as individuals become parts of decametric wholes,  $S^0$ =individual becomes part of  $S^1$ :families, part of  $S^2$ : tribes, part of  $S^3$ : villages and so on. Whereas the 10<sup>th</sup> isomorphism returns to the generator and studies the 3 planes as wholes, in its relationship, localizing the key variations within each plane

.

Thus we study everything departing from that generator its two fundamental 'variations' of space vs. time, its 3 varieties of spatial forms and temporal ages and its 3 planes of existence



that generate all systems. In the 5<sup>th</sup> first isomorphisms in a rather qualitative manner, in the 5<sup>th</sup> second isomorphisms in more formal quantitative way by considering”

- The dualities of present-space-still-simultaneous-synchronous view vs. the temporal dynamic moving view, and the different back and forth arrows of energy-past and information-future between them, ruled by the 5 postulates of non-Euclidean geometry that define those flows in the second postulate, its relative nature as Darwinian at or social acts in the 3<sup>rd</sup>, and so on and so on.

- And the ternary ages and ternary parts in space.

And the 10 social scales of tetraktys from soldiers to corporals to captains to generals toll the magic  $10^{11}$  number that brings us a whole. So that is the number of galaxies in the Universe, of stars in a galaxy, and for each of the 10 planets of each star more or less that is the number of humans in the planet, of cells in a life being, of DNA ties in a genetic molecule...

Variations of course as the game is NOT mechanical but organic, adapted to the survival in each system and whole world occur, but it is fascinating to see how much exactitude occur – the more so when we go down into perfect forms without entropy of energy or information, till arriving to the *ideal 0-scale of mathematical logic* albeit as Saint Augustine said of the logic of god the mind of the Universe ‘of a higher logic than the Aristotelian Euclidean man)

And so going upward or downwards we do study by breaking in  $3 \times 3 + 0$  parts each fractal part reality both ways.

For example man has its 10 physiological systems of which the 0 one that coordinates them all – the black ball in the center of the tetraktys of a billiard plane is the nervous system, and we can divide it further into ternary symmetries.

- For example the ternary symmetries of scale – as each part has 3 subparts, that became other 3 subparts, so for example the nervous system has:

Sp (lineal spinal chord) < ST (medulla) > Tf (brain)

And then the encephalon has 3 parts: Sp (cerebellum) < ST (white matter) > Tf (grey matter)

And then...

You see this is the formal way: a generator equation, subdivided in 3 x 3 x 0 elements and then study all its parts and subparts in time and space.

Now because the science of the age, was dominated by the Industrial R=evolution, which then was in the age of creation of hearts of metal (engines, or age of Germany), the new heroes of science were, where the oil and electric motor were discovered.

An there the ego paradox of the ‘animetal enzyman’ that catalyzed the evolution of machines and weapons, the physicist who feel superior to the mathematician and philosopher reached its paroxysm of ego-centered beliefs.

Now the sickness infected mathematics, and since non-Euclidean geometry had made clear the need for a definition in fractal terms of the ill-defined ‘elements’ of mathematics, the point with breath, the lineal wave of communication, the topological network, and the existence of betweenness or not (which implies that a line requires 3 NOT two points to be defined, origin of the ternary symmetries of the Universe, that an elliptic geometry has NOT betweenness, because it is a cycle and the cycle is finite but unbounded, etc. etc. themes those of 5D metric and  $\neg \text{Æ}$  which go beyond the scope of this post), etc. alas, instead of having a new look at the Universe of

Lobachevski pangeometry and its scales discovered by telescopes and microscopes, and describe as we have done the paradoxes of the 'real 5<sup>th</sup> dimension', there it came to 'imaginative' mathematicians who decided to scrap completely reality from mathematics.

- So one of them Cantor substituted the point and the social number as units of geometry and algebra by an imagined concept the 'set'.

- And other Hilbert, said that since he didn't know how to define points, lines and planes, they must be 'undefined terms', 'imagined' by the mathematician. It was the birth of modern mathematics.

As usual, when such outrageous ego trips happen (as when hawking imagined his black holes as time machines) the world got first nuts, having a laugh to the big egos. But big egos work a lot, they have an intensity of actions, to impose its knot view, and non-big egos, we are lazy aware of the enormity of the whole, and tend to be Taoist wu-wei, dolce fare niente people, astonished to the intensity of the egos to establish its canonical lies and truths.

So Hilbert and Cantor put together his lunatic forces, and Hilbert said famously 'that nobody would take us from the Paradise of Cantor sets' and took Cantor from the mad house where he was living, justly after inventing reality. And alas, they put together all the power of the German Empire in its paroxysm of ego-centered beliefs (reached latter during Hilbert's lifetime by the Nazi squads) and refurbished the meaning of mathematics, till this day. I recall when I was young selected for the mathematical Olympiads, with a sudden rush of enthusiasm, I sent the solution to the Fermat last theorem, with a brief note, to Nature magazine:

'I have resolved the problem of Mr. Fermat, my fellow Basque

amateur scientist, which he couldn't scribble in the side of his book note. As you can see, I managed to write it into the margin; just 3 sentences; so if you are so kind to put it as a brief note'. It requires though to understand the bidimensionality of spatial entropy and temporal information, which put together create the holographic Universe (so you will be reading the note in a bidimensional sheet of information). So include a 30 pages addenda on the realist nature of mathematics which merely reflect the structure of the pangeometry of the Universe.

The proof is indeed trivial. Because the Universe messes bidimensional surfaces of space-time, the superposition rule only works for bidimensional systems, hence  $X^3+Y^3 \neq Z^3$  and that fitted in the margin of my book on macro-economics along my existential poems, which I valued more.

Decades latter, with the help of computers, the true mind of the modern scientist, and hundred of pages, some Anglo enzyman found a somewhat longer proof that didn't fit on the margin not even that of the Britannica (-;

This I said because 'the Universe is simple but not malicious', and finite in its sizes, for each scale whose quanta do not go beyond  $10^{11}$  without moving to another scale and becoming 'something else'.

So what Lobachevski had proved in his pangeometry, which starts defining finite lines, is that parallels are NOT infinite, and so INFINITE is an indefinable concept, which therefore CANNOT be used in mathematical proofs, and should NOT be considered an element of truth, because we shall ENTER into paradoxes of all kind, as equations BREAK beyond its finite, but unbounded, cyclical form (more properly a Mobius string, if we were to enter into a more precise define of a worldcycle).

So in Germany mathematics had its ego power, but not its

reasons – that was in Russia, with Lobachevski, and his insistence that experimental evidence was needed as mathematics was a realist science, and in Austria with Gödel, which would make a fool of Hilbert, and in Britain with Russell which would make a fool of Cantor's infinity cardinals, and in France with Mandelbrot that will discover the fractal point, so the whole cycle from Descartes to Mandelbrot will be closed – we just put the epilogue.

The paradoxes of set theory merely show Cantor's concept of infinity is wrong. And this should be obvious to any simple not malicious minds: you cannot compare infinities because they are undefined. The only defined one in a 'differential manner' is  $0 \times \infty$ , the definition of a constant mind of which there are as many variations as in a differential equation.

You know NOTHING about the real mathematical world, Mr. Hilbert, Mr. Cantor. But now all mathematicians are Hilbertians and Cantorians, what I call Mathematical Hilventors, that is inventors in its ego trip of a false paradise, which does work as all worlds are possible but has little to do with reality, and makes mathematics no longer a world of mind pleasures achieved when the world within us observes as Kant put it in his epitaph, the world outside it, and finds it to be a focused mirror with no deformation of that larger reality, instead of a twisted elliptic Klein bottle of unending self-twisted unescaping black holes.

Of course the Axiomatic method and sets do have their use specially in algebra, and for specific parts of it, but they do NOT represent the simplicity of the Universe, do NOT reflect the fundamental elements of space, the fractal point, of time, the point-cycle, of the 5<sup>th</sup> dimension, the social number, and its direct relationship with reality. And the only effect it has had is the separation between people and mathematics, as mathematics became yet another 'expert' field, unconnected from reality.

So they have provoked a lack of society's interest for mathematics, precisely when mathematics through computers have become the fundamental language of power and control of society. For that reason it is imperative that people do understand mathematics and how mathematical logic creates reality.

Let us then escape the metaphoric language and clarify, in simple terms...



*Some dual, creative analyses forgotten by AE sciences that we consider in  $\neg AE$  ST Theory: the Universe as a spatial system, machines as evolutionary beings, and civilizations as organisms. The game of creation must be understood through its 'dual symmetries' and ternary networks that allowed its finite reproduction of fractal forms in the infinity of continuous space*

The most satisfying function of existence is reproduction, the Generator Arrow, the maker of the game and all its species - the purest sensations of them all.

The Generator Feedback equation of spatial '—motions' and temporal information is a reproducer, which embodies all the combinations of the game in itself, the creative algorithm of reality, which Turing once looked for with its simplest example a touring machine. But the creator potentially is more than a touring machine, it is what the touring machine observes, reality itself.

The rest of beings are just following the combinations of that grand design.

The active creator is limited by the parts of the whole that will assemble. So we shall call it with a more humble name, the assembler

With the syntactic combinations of the i-logic generator, the creator will always end repeating a form of finite time that had existed in  $\infty$  space.

The proof that we are all repetitions is clear: space is infinite because it has not dark spaces, but it is a continuous number of closed and open topologies assembled in triangles, squares, hexagonal, polygonal and hexagonal, planes and spheres, with no darkness.

Information however is always limited and time always ends: it is a fluctuation of existence over that  $\infty$  '—motions'.

All existences have possibly existed in the infinite fractal space of a finite number of times cycles.

We all will be assembled again as an i-logic form of space-time in some other self-repetitive fractal printed in the infinite '—motions' of the trophic pyramid of existence that gave you birth.

Let us then operate the creator: Its simplest combinations will be complementary systems of '—motions' and information that take advantage of the inverse properties of both:

### *The dualities of Creation.*

In time the generator combines past, '—motions' forms and future informations, generated by its universal, feedback cycles, and its arrows that imprint and create the chains of forms of present existence. Creation is structured by a series of dualities that merge creating an eternal, fluctuating present that appears and disappears as cyclical action-reaction systems

cancel each other, making its total sum zero:

- Time and space have opposite morphologies and functions, which cancel each other:

- Informative, temporal singularities are convex, implosive and energetic membranes are concave, explosive. Thus a flat plane of temporal '—motions' fluctuates into 2 virtual forms whose total value is null. For example, particles and antiparticles are born of a vacuum plane without form but they keep their inverse CPT parity. Thus the sum of its spatial form (P), its temporal arrows (T) and its dual, organic charge cancel.

- The duality of '—motions' and information explains also *sexual differentiation*: females are specialized 'time beings' dominant in cyclical forms, memory, information, temporal verbs and perceptive languages. While males are specialized "—motions' beings' with bigger, lineal forms, dominant in spatial tasks. Yet both can be further differentiated into an informative cyclical head, and a lineal body. So, in graph 3.1 we draw a man with "temporal cycles" that represent his informative organs, the head and senses; and '—motions' lines that represent the body and his members. Yet, despite the simplicity of that design, he is recognizable as a man.

- Duality causes the creation and reproduction of space-time fields through the process of palingenesis, by which a certain form of relative future, a father, emits a relative form of past, with lesser evolution, a seminal seed, that then evolves very fast towards the future, till becoming again a present form parallel to the father.

- Duality exists in biologic organisms evolved by the dual influence of macro-ecosystems and micro-genes.

- Duality is the cause of informative perception, as flows of spatial forces become transformed in a point of relative time or



particle, in which they 'merge' into a 'boson', accumulative image of information that represents reality.

- Duality also applies to behavior: there are Darwinian acts between different beings that destroy each other vs. social, evolutionary acts between equal beings that evolve together, sharing '—motions' and information through common networks. Thus all organic life ends up cancelled by a predator. It is a key duality as it responds to the 2 arrows of space-time, the arrow of symbiotic order, of information and the arrow of energetic '—motions' of destruction defined by the 3rd postulate of illogic geometry.

- Finally Duality implies that all forms that evolve in time through 3 horizons, then organize in space those 3 horizons as the 3 regions of an i-point.

The number of events we can describe in all sciences departing from duality is enormous. Yet in as much as temporal information is dominant in living beings, illogic time is more important in biological and sociological sciences, explaining phenomena such as reproduction, perception, life and death, organic structures, etc. While, physical and cosmological particles can be described better with the use of Non-Euclidean, spatial geometry, as particles are dominant in spatial '—motions'. We will consider in the next chapters the most important biological applications of illogic time: the duality of Darwinian and symbiotic behavior; the way in which perception occurs; the concept of a top predator species, as information selects species with better brains; the palingenetic reproduction of biological forms which implies a dual travel in time back and forth from the future to the past...

But duality is only the beginning. Most systems evolve, self-combine and create finally a 3rd system, a reproductive one, becoming autonomous, without the need of 'assemblers' and 'enzymes'. And then the game becomes richer in variations,

because it becomes guided by ternary symmetries.

We understand those organic, self-reproductive systems according to the *Ternary Principle* studying the 3 *temporal ages* and functions of a ST field and then putting them together as the 3 *geometric, organic, spatial* regions of i-point. Since all ST field require 3 elements to exist: a Tf, informative element; an Es, energetic, spatial form, and an intermediate 'present, simultaneous region', dual flux of temporal '—motions' that merges them into a whole. The result is an Sp-Tf rhythm of evolution and reproduction of forms in time that become latter reorganized as i-points in space, creating dual organic, real forms of temporal '—motions'. For example, the Universe first created fundamental particles, temporal quarks and spatial electrons that recombined into ST atoms; the body reproduces cells that latter evolve, becoming organs of '—motions' and information, etc. Thus ST theory shows the complementarity between the ternary horizons of species that once have evolved energetic and informative particles interact creating an intermediate ST zone, shaping a new i- organism:

- Max. Sp: The external membrane and energetic network of the system that performs '*—motions' cycles*, transforming information into '—motions', appears first: it is the cell's fat membrane, the stars of the galaxy, the endodermic cells of the future digestive systems....

-*Max.Tf. Then it will appear the informative quanta of the future informative network and 'brain'* of the system that perform *informative cycles*, transforming '—motions' into information: they are the cells' informative nucleotides, the black holes of the spiral galaxies, the brain.

- Sp x Tf: Finally the interaction of '—motions' and informative systems creates *an intermediate, reproductive region that combine '—motions' and information*: so protein membranes

and nucleotide acids create the cell; stars and black holes create galaxies; the energetic endoderm and the informative ectoderm create the middle mesoderm region, each one the blue print of the future energetic, digestive, informative, nervous and blood, reproductive systems.

In formal terms we write the process as a decoupling of an initial  $Sp \times Tf$  form that differentiates into a more energetic membrane (Max.Sp) and higher informative quanta (Max.Tf), that interact, creating the intermediate region, ST, shaping in this manner a new, ternary equation – the ultimate definition of any species. Since we are all self-repetitive MST field equations

The generator equation,  $Sp <ST> Tf$ , represents both: a temporal event between 2 relative ‘points’, an  $\mathbb{E}$ -point with higher content of ‘–motions’ or relative past form, and an  $\mathbb{E}$ -point with higher content of information or relative future form, that communicate implosive information ( $>$ ) and explosive ‘–motions’ ( $<$ ), through a wave of temporal ‘–motions’,  $<=>$ ; *creating a ternary, multicausal, simultaneous structure of spatial present.*

*Multi-functionality: 3 st-points functions. Ternary Principle:*

Creation happens due to the ‘diversification’ of any Space-time field in 3 subspecies in space or 3 ages in time; Sp, ST, Tf.

It is the ternary principle once and again written in the book of Nature, caused by the fact that there are only 3 elementary forms in the Universe, ‘–motions’, information and a combination of both. Thus, events, species and space-time fields, both in time and space, have 3 elements: *3 ages, 3 horizons, 3 dimensions or 3 physiological networks*, whose functions correspond to the arrow of ‘–motions’, information and reproduction that create the Universe. The Ternary principle is the origin of an evolutionary, impersonal plan of

creation that diversifies species in all scales of reality into 3 forms, (Max.  $\Sigma Sp$ , Max.  $Tf$ ,  $\Sigma Sp = Tf$ ), from the 3 families of masses to 3 the types of Universes. It allows organizing all biological species in a tree of ternary horizons and differentiations of energetic, informative and balanced organisms, which co-exist in 3 st-scales of existence:

*‘Any form can be subdivided ad eternal in new ternary forms.’*

For example, the human body can be subdivided into 3 networks; then the digestive network can be subdivided into the stomach, liver and intestine system that can be subdivided into the colon, small, and large intestine, which can be subdivided into the left, top and right side, etc. The Ternary principle implies that the 3 spatial dimensions of any space-time field perform 3 temporal functions:

*‘Any species, which is part of an ecosystem or an organism, maximizes its survival developing 3 functions as an energetic, reproductive and informative system for the higher scale’*

I.e.: a cilia act as energetic limbs that move the cell, sensorial antennae that inform, and they evolved as centrioles that help to reproduce it. Hormones are also multifunctional.

And so on. This first rule of creation developed either in space as a topology of 4-dimensional reality with 3 elements, toroid ring, hyperbolic cycle and spherical plane, or in time as a game of ‘—motions’ that warps into information reproducing along the way, is your limit.

So the creator descends a notch more into self-appreciation since he is nothing but a contemplator of a game which has created before. That is he is created by the game and as assembler he is so determined to do one of the known-known combinations that, indeed, there is nothing new under the sun.

The isomorphisms of the game of creation are in themselves an entire sub-discipline of multiple space-times theory, studied in detail in my files. In essence the process is self-similar in all scales:

A species will differentiate in ternary sizes (its cellular, organic and social size); it will differentiate in ternary topologies (an species dominant in ‘—motions’, one in information and one in reproduction); in ternary ages (a neoteny species aborted in a palingenetic phase; one mature species and one with an excess of information, *which will become cell of a new scale of evolution, a superorganism communicated by the language*); and in ternary functions, symbiotic to the higher  $st+1$  organism in which the entity exists (as an energetic part, an informative part and a reproductive part or else the organism would not ‘tolerate’ the presence of the microcosmic species with no function).

Further on all those creative strategies of survival become more complex, when we consider its combinations: species with several functions, often in several scales; complementary, sexual specialization in an energetic, male entity and an informative, female entity; ternary structures that form complete topologies; open balls that act as doors between membranes, without center and membrane; and *combinatory varieties of ‘sexual species’ or ‘complementary’ species, in which the ‘—motions’/informative components, each diversify in 3 topologies, scales, ages, etc.*

Those combinations further enlarge the number of subspecies, though many of them, especially ‘anti-species’ in which the lesser informative ‘male’ plays an informative role and the lesser ‘energetic’ woman an energetic role (for example an antiparticle, with an energetic electron in its informative center and an informative proton in its energetic membrane), will not be stable and will not survive. This brings another essential law of creation, the inflationary nature of information checked by

the isomorphisms of survival that extinguish unsuccessful species and tends to reduce the explosive age of creation to 3 'basic ternary differentiated' types that survive, while other transitional or non-balanced combinations disappear:

*'The Universe creates an inflationary number of 'forms' which are then reduced by natural selection to ternary species and balanced, complementary, dual systems'.*

Those rules allow the entity to play an interconnected, synchronized role as part of a bigger organism and/or ecosystem, in which it will play its dynamic, causal chains/arrows of existence and life cycles:

*Max.Tf(seed)->Max.Sp(youth)->Max.Reproduction  
(Maturity)->Max.Information (3rd Age)->Death(Tf->Sp)*

But Life cycles can be immortal, if instead of dying after its 3rd Age the entity evolves socially as cell of a higher system communicated with its informative language (Est-1). Then the species will 'transcend' into a complex super-organism. Some systems might even attempt a feedback cycle of immortality (Physical particles, simple biological jellyfishes:

*I-> '—motions' youth ->reproduction <- '—motions' Youth...*

*'—motions' (wave) -> Information (Particle) ->'—motions' (wave)*

And so, with those simple rules we can classify as we shall do in our studies of physical, biological and sociological species of the Universe all the entities of reality and its events.

**Recap:** The ternary principle explains the creation and diversification fractal super-organisms both in time ages, scalar planes and network-spaces. Space is infinite time is not, time games are less than space. Because the volume of space is

bigger than the volume of time all forms have been repeated.  
 And so all is repeated again.

**THE ORGANIC LAWS OF EXISTENCE IN SPACE AND TIME**

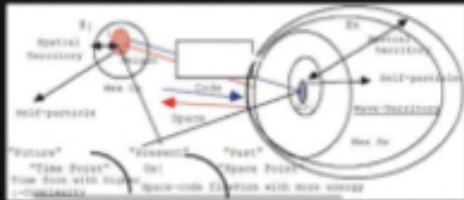
The inverse properties & cycles of transformation of informative time into spatial energy,  $E \leftrightarrow T$ , ruled by the fractal geometry of space & the i-logic flows of informative time explain all quantic actions,  $E \leftrightarrow T \leftrightarrow K$  (h, k), organic networks,  $\Sigma E \leftrightarrow T$ , and dimensional cycles,  $E \leftrightarrow T$  of the Universe and its fractal organisms

All species & sciences that study them obey the same space-time laws derived from the fractal Geometry of space, the S-T flows they enact and the ternary arrows of Time:

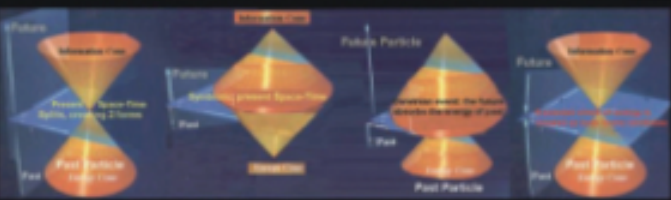
SPACE LAWS	S-T LAWS	TIME LAWS
<b>3+1 Networks</b>  $\Sigma E < ET > T_i$	<b>Dualities</b> <b>Cyclic-Lineal States</b>  Continuous-quantic states	<b>3+1 D=evolutionary plan</b> 
<b>Fractal Repetition in 3I+1 Planes</b> 	<b>Dimensional Cycles</b> 	<b>3+1 ages of existence</b> 
<b>Properties of spatial bodies</b> 	<b>S-T Inversions/antisymmetries</b> 	<b>Properties of Informative Heads</b> 
<b>3 Non-Euclidean Topographies</b> 	<b>Ternary Principle</b> 	<b>Organic, Hierarchical classes</b> 
<b>5 I-logic Postulates</b> 	<b>Multicausality</b> 	<b>Oedipus Paradox</b> 



**1. POINTS WITH PARTS. 2. LINEAL ET WAVES-FLOWS**



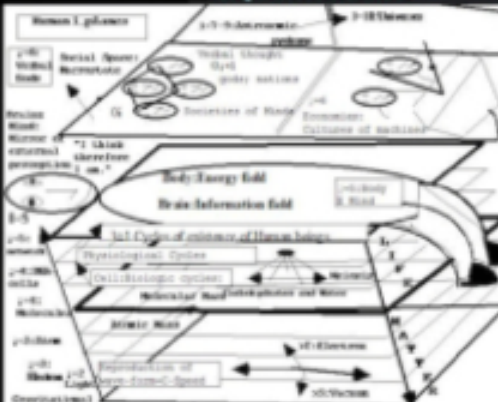
**3: EQUALITY VS PERPENDICULARITY**



Quantic Points have inner dimensions. They share **dual lines-flows of energy & information** with other points, creating **quantic, organic networks=planes of space-time**.

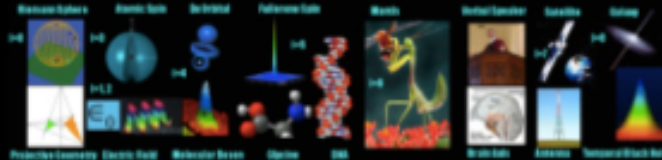
Perpendicular exT flows create **destructive & hierarchical events**. Parallel flows build social networks. The combination of both, create the complex 1-dimensional structure of superorganisms:

**4: QUANTIC PLANES: I-VOLUTION:**



Quantic Networks Joint Non-E points through **dual flows of energy & information into present, existential planes**. Planes organize a 5th hierarchical 1-dimension through **unequal flows of energy from past micro to macrocosms & information from future macrocosms to microcosms**.

**5. Minds: Spheric, Tall 0-points map ∞ Universes into Constant, linguistic Worlds: 0 X ∞ = C**



SENSORY BRAIN SYSTEMS PLACED ON THE CENTER OR HEIGHT OF ANY ORGANISM USE LANGUAGES TO ASSURE I-0 FIELDS THAT SOLVE THE ENERGY ACTIONS AND TEMPORAL CYCLES OF ITS WORLD RELIANT TO ITS SPECIES.

TCE is based on the cyclical nature of Time and fractal structure of space evident to all systems. This Organic Structure is both Simplex but also Ternary Complex due to the 3 arrows-dimensions of time, its symmetry with the 3 organic parts of all systems, and the ternary structure of the scales of the 5<sup>th</sup> dimension that co-exist together in organic systems.

Thus the ternary Cyclical=replicative nature of fractal space-time systems and events becomes the constrain and cause of all the laws of Science and T.Æ merely systematizes those laws by extracting them from the fundamental space, time elements of reality.

Then in each of those scales of space-time, we find that the common laws of 5D space-time Correspond with the laws of the species of each scale and its previous theories.

So all this, we resume in a formula,  $T.Æ=SC^3$  that embeds



those Principles of Philosophy of Science that all Organic Time-space Systems Follow, born of the duality between the Simplex, S, principles and the 'ternary Complexity', C<sup>3</sup> by repetition of those events.

We resume the postulates of the scientific method in a simple formula:

$\mathbb{E} = \mathbb{S}c^3$ : **Objectivity, Linguistic, Isomorphic Perspectives, Experimental evidence = Simple, Minimalist, truths – Ockham's razor, Correspondence Principle, Cyclical repetition – Predictability and Complexity born of the ternary, fractal constant subdivision of reality into parts).**

Now of those 'elements' 2 are brought about by T. $\mathbb{E}$  to the classic elements of the scientific method, 'Linguistic Isomorphisms', that hidden dual I and L between the O and the E of  $\mathbb{E}$  (-:

That is, we can to verify further a truth consider different linguistic perspectives (mathematical, logical, mental and Organic, according to the 4 fundamental elements of all systems: its spatial symmetry, its temporal ages, its organic co-existence in 3 scales of the 5<sup>th</sup> dimension and the existence of a central point of view or 0-point that orders and focuses the program of 5 space-time survival actions that all systems perform to continue into existence).

All those point of views harmonize each other and reinforce the existence of a being. And they are the origin of the 5+5 qualitative and quantitative isomorphisms we use to describe all systems of reality). So we shall apply that methodology as we have done with other systems to astrophysics to describe the Universe and prove that is all what we need to describe reality.

So we have to adapt present theories of the Universe to the

5Dimensional, fractal, cyclical nature of space-time.

How the present Cosmic theory of reality, the big-bang Paradigm fits within that scheme?

Surprisingly enough it rather fits easily, but at present, it shows also some contradictions and limits which might be considered faults of 'Objectivity' mainly due to the anthropomorphic desire to explain it all from the human limited perspective.

So while we will introduce the translation of the Big-bang to 5D astrophysics, which would be a bone to get 5D accepted by mainstream science, we will be 'objective' to the extreme and conclude that while the big bang is a possible theory of the Universe, in the cyclical, commonly accepted version (with inflation and a final big crunch end, so it becomes a constant cyclical Universe) there is a more objective vision of the Universe, 'absolutely relative', and enlarged with infinite scales of space-time, in which the big-bang or an alternative cosmic Universe of trillions of galaxies, in which the cosmic explosion should be just a local phenomena of a local Universe, represent merely another scale of physical systems, as those of quantum particles, molecular atoms, states of matter and cosmic bodies.

Again, this concept is also handled profusely by astrophysicists, albeit by the obvious problem of lack of evidence, at the theoretical level, with the concept of a lower scale – the Planck scale of strings belong the particle scale of the 5th dimension and a larger scale above the galactic scale – of cosmological strings, in correspondence with the world of micro-strings.

We won't analyze that level beyond considering some necessary corrections in a Universe of 'background independent space-times', as it is purely theoretical, and so this post will be dedicated to the analysis of the big-bang from

the cyclical, fractal nature of space-time and the highlighting of its 'scientific problems', from the perspective of philosophy of science and the rules of epistemological truth we have summarized in the 6 rules of the mnemonic formula,  $E=mc^2$  (objectivity, Evidence, etc.)

Along the way of course we shall introduce key findings of T.E: the unification equation of charges and masses, the nature of particles and anti-particles, the role of background neutrinos in the Universe, the reason of the 3 families of masses and its symmetry with the 3 families of cosmic bodies, the likely nature of dark energy and dark matter, within the parameters of 5D astrophysics, etc.

## **THE GENERATOR EQUATION THROUGH ALL THE SCALES OF THE 5<sup>TH</sup> DIMENSION**

**The 'Generator' equation of space-time beings and its ternary logic.**

Unfortunately the beats of the universe are difficult to understand because the logic of present man, especially that of physicists seems 'lineal Aristotelian': A causes B.

Reality though is more like the Eastern philosophies of Vishnu-yin-information and Shiva-yang-energy/motion:

$A \Leftrightarrow B$ , that is A and B interact to create a ternary  $\Leftrightarrow$  present element.

Reason why there is conservation of Angular and Lineal Momentum, there is Space and Time, Energy and Information, O-Particles/Heads that store time cycles and limbs/fields that move them, mixed in bodies and waves that reproduce both of them.

Humans of course, naturally have always expressed this 'Ternary' Structure of the universe.

And so the parallel syntax of the languages of knowledge we use to describe those Universal beings - verbal, mathematical and visual languages - all have the same ternary 'grammar', which I have called the 'Fractal Generator' of the Universe:

Tf (Subject or Function of 'temporal information') < ST:  
action, operandi or verb  $\geq$  Sp (Object of 'spatial energy').

We associate counter-intuitively 'cycles with motion' and 'lines with Still space'.

It has to do a lot with the limiting errors of classic physics, where only lineal inertial motion matters. Fact is big-bang explosion DECELERATE speed till it becomes Still lineal distances and dimensions, that is pure lineal space with no motion or vacuum space (as in any physical big-bang of entropy). While the equation of cyclical vortex, is  $V_o \times R_o = K$  (2-manifold, simplest variety), which counter-intuitively accelerates ( $\Delta V$ ) when distance becomes smaller, ( $-\Delta R$ ) to maintain K constant.

Thus clocks, frequencies and vortices accelerate, and have more 'time' content, than lineal motions that decelerate to a halt.

Now, we explained before that in duality Space was slower, extensive, Sp, Size, and time was faster, cyclical, accelerated (so are its maths). But now in ternary symmetry we have the need to 'extend' the meanings of time and space to the duality of the 3 motions of time and the 3 organic parts of spatial bodies and this makes some confusing choices of terms, such as:

Space will be the still, formal view of reality and Time the

motion view. And so we shall talk of 3 'topologies of formal space', and 3 'ages of time motion', which together shape the fundamental duality of reality, the view of organs in simultaneous space and the view of beings living a worldcycle of 3 ages of time:

Sp (limbs-fields)≈ Young, past, expansive age < ST: Present, repetitive, hyperbolic body-waves, adult reproductive age>Tf (Temporal, future informative, cyclical old age).

Now here the convention I have adopted is to *Use the same symbols for either symmetries, the limb-field<body-wave>head-particle or spatial simultaneous view of an organism in space, and the Young-past-expansive < present-Adult-reproductive>Old-Informative 3 ages of time.*

This is where things seem confusing because the whole thing transmutes. The old age of future time has more information and it is cyclical, properties of time cycles, but it is also slower, property of space decelerating motions. The young expansive age has more motion, a property of time more than space and so on.

But as I have told you B & W and 3 color view are new worlds, and this is the closest way to express past references and correspond with human expression of all this.

A way out to avoid confusions with the ternary symmetry is to use more when dealing with the still, simultaneous spatial view, the 'symbols of geometry-topology, |, O and Ø:

| -Limbs/fields < Ø-waves-bodies> O-Heads/Particles

And the same for time ages with the reference of time motions:

| -young past < Ø-present, reproduction > O-Information, future, old age.

So it shows the symmetry with the symbols | ,  $\emptyset$ , and O.

If in the future anyone goes through my 30 years of research in all this, they will then find that I profusely use those symbols.

But trust me if you really understand T.Æ which is more a question of mental attitude, the understanding will be clear from the beginning.

### **The generator equation.**

So I wrote the Generator Equation, a symbolic equation that represented all the systems made of fractal space and cyclical time and its space-time combinations, whose geometries ARE the 3 'only' Topologies of the Universe we perceive:

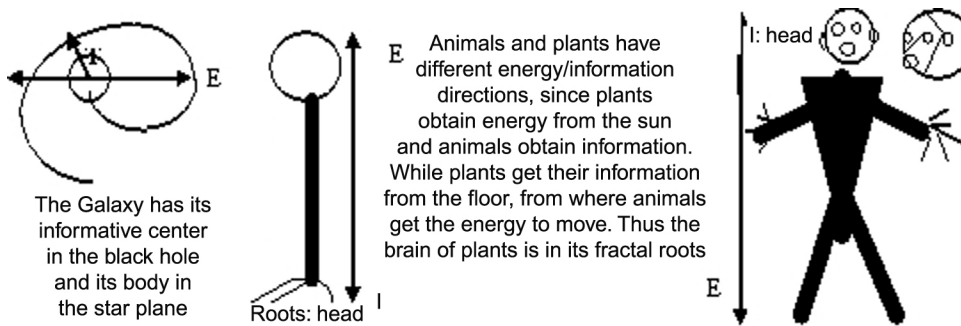
Γ. Generator:      Toroid Sp(limbs/fields) < Hyperbolic  
ST(st) (repetitive waves-bodies) > Spherical Tf (head  
Particles)

Since limbs and heads, fields and particles interacted and mixed their lines and cycles into 'conic bodies, and elliptical orbits and hyperbolic waves'.

Or as Cheng-Tzu the Taoist philosopher put it: from 1 (time cycles or Tao), comes 2 (the yang-line of energy and the yin-information, broken line) and from 2 comes 3, and from 3 the infinite beings.

(Asian cultures defined always time as cyclical, without the distortion of lineal physical time, also for cultural reasons we shall soon explain.)

So I could classify all the different space-time beings made with the 3 topological formal motions of the Generator.



Since Nature 'pegs' those 3 forms & functions, which put together create the underlying structure of all systems of reality, both physical and biological, as all combined the ternary elements of the generator equation, either in sequential time orders (entropic youth, reproductive maturity, 3rd informative old age) or simultaneous, spatial organisms:

It is clear that Informative Time, It, is far more important, as a cycle has more dimensions, more length, and stores lines inside. So the Time, informative system (the head/particle) controls the line, the energy/limbs/fields systems. And all systems had one on top or in the place where information is more available to them. The plant has its 'head in the roots' that absorb chemical information; the galaxy in the black hole in its center that absorbs gravitational information, the human in its head that sees light information, inverse to the plants. And each one creates a different world map with it - a monad.

Those cyclical Tf-particles/heads are cyclical precisely because the sphere is the form that stores more information.

**The ultimate truths: the simple a(anti)symmetries of the Universe.**

Again we MUST stress that contrary to pedantic belief and

computer details, the 'Universe is simple and not malicious', and the laws of truth are simplicity, minimalism (Ockham's razor) and Correspondence (max. number of facts explained). So I knew I was in the correct path. How 5D metric related then to the Generator Equation? Simple, if we consider Sp, Spatial Extension and Tf, the Informative, temporal head, or future logic element that guided the past limbs and hence defined the future, its combination was the Present perceived form.

So it was in fact THE 3RD SYMMETRY THAT defined the Generator Equation, symbolized with the letter  $\Gamma$ :

- The antisymmetry of the 3 ages of time, as youth-motion and informative-old age are inverse.
- The symmetry of the 3 forms of space, as bilateral parity makes left and right essentially the same.
- The asymmetry of the 3 planes of existence, the  $\alpha-1$  (quantum/cellular),  $\mathbb{E}$  (thermodynamic, organic) and  $U+1$  (social, ecosystemic or gravitational cosmic), which co-exist thanks to those metric in all 'super-organisms' of the Universe, as *those scales become symbiotic, when information flows from  $\Delta-1$ , energy flows from  $\Delta+1$  and both merge in the balances of n-scales. So genes code you, the world gives you energy and you co-exist in balance; quantum particles code atoms, matter states give energy to those atoms and atoms co-exist in balance; etc.*

**And the  $\neg\mathbb{E}$  formalism that better express them.**

Then I realized why mathematics was a language, so closely related to 5D space-time.

Since geometry was the science of space, logic algebra, with its sequential social numbers, the time language, and analysis the 3rd branch of mathematics, the study of the 5th dimension, of infinitesimals and wholes.



So it was easy to translate the laws of mathematics into isomorphic laws of 5D space-times, with the proper corrections to account for the fact that each point was a world in itself, when we came closer to see it - the true meaning of the 5<sup>th</sup> non-Euclidean postulate which defines points as crossed by infinite parallels; part of waves, connected into planes, that grew through the fifth dimension into co-existing organisms, which used the clocks of time of different speeds to build up its complex forms. It did not matter so much that form, as knots made it convoluted, but the functions of those networks, which now became the 3 'physiological networks of all systems', again described by the Generator equation:

Sp; Digestive-energetic network of Non-AE points < ST:  
reproductive, 'blood' networks > Informative, nervous  
networks: Tf

Of those elements, the most important is the most spiritual of them, the mind, defined by the 5th Non-AE postulate of pan geometry:

5) Definition of a mind: O-Point  $\times \infty$  cycles of space-time  
(world)= Linguistic mapping (mind).

# I. MATHEMATICS: I-LOGIC, $\neg$ - $\mathcal{A}$ -ALGEBRA:

## LOBACHEVSKI VS. HILBERT

### EXPERIMENTAL MATHEMATICS: WORLDS GEOMETRIES

Now the next huge confrontation between the single worldview of physicists and the multiple worlds of Philosophers of Science, will take place strictly in the field of mathematics. We have 'acquitted' Einstein, even though he developed the next r=evolution of time concepts after the duality between Darwin and Clausius (evolution of information vs. entropy only dying Universe, studied latter when we define the human being as a space-time organism), because on my view his findings are essential and in the right track to fully grasp cyclical time, but they were 'bend' as usually by other lesser physicists and mathematicians to cater the lineal worldview. Specifically Minkowski simplified his findings and defined a lineal  $s=ct$  parameter of time, exactly the same of Galileo  $S=vt$ , just changing the speed of the body by the speed of light, to be able to measure the distortions in simultaneity caused by the existence of infinite time clocks.

What truly mattered was the finding of Einstein which confessed 'I am the only physicist who realise there are infinite time clocks in the Universe running at different time speeds' and also 'Time curves space into masses' and 'Leibniz was right but if so we must change the entire building of physics from its foundations'.

And further on 'science must only be occupied from facts that are experimentally certain', and 'I know when mathematics are truth but not when they are real'. So he was at heart understandingly. But soon he was immersed in the idealist, germanic school of mathematicians, like Cantor, Hilbert and Weyl, which substituted, after the crisis of Lobachevski's pan

geometry, real points with parts, social numbers, and topological networks by 'imagined or undefined terms, sets or groups' as the unit of reality, breaking the NECESSARY CONNECTION between mathematical logic and reality, as geometry is the language of space and logic the language of time of the human being.

SO AFTER LOBACHEVSKI's (Boylai and Gauss also) discovered that space was NOT Euclidean, except in the limit of human perception, defined by this FUNDAMENTAL parameter of the Universe:  $Tf/Sp: r^2/L^2$ , the fundamental steps of science to be taken were:

- To complete the classification of all possible geometries according to the relationship between its quanta of cyclical form-motion or radius and its quanta of lineal speed-distance or length.
- To determine experimentally the values of our  $r^2$ , electronic quanta of information, we humans used to perceive  $L^2$ , our quanta of space, which had also to be determined.
- To study other experimentally known minds of the Cosmos to see if they had the same 'bidimensional units of information,  $Tf=r^2$ , and  $L^2=Sp$ , and how they will perceive the Universe hyperbolically, elliptically or Euclidean.
- And to research how all those relative different space-time geometries order in Nature (through the scales of the 5th dimension).

And yet none of this steps were taken. So we shall take them here to show you:

- First the nature of the Euclidean mind of man, where its radius is given by  $\hbar$  and its quanta of space by  $c^2$ , hence it has an  $r^2/L^2 \rightarrow 0$ , which is the requisite found by Lobachevski for an Euclidean mind, and then...
- to study the other 'minds' of the Universe and the different scales of the 5th dimension according to their peculiar

- geometry
- And finally to see what physicists did with this discovery (just to apply the 5th non-E postulate of riemannian elliptic geometry to the larger gravitational scale where indeed, geometry is elliptic because L grows to infinity (action at distance)).

### **The need to evolve the logic and mathematical 'undefined' elements of the Universe.**

Now the key difference between a philosopher of science like Leibniz and a Physicist like Newton is this: Leibniz as Aristotle and Descartes before him, was conscious that the language first defines the world we perceive, and NOT the Universe. So it is a humble realisation of the minimalist nature of human egos. The Physicist has reduced THE ENTIRE universe to the world-perception of a human light space-time ego centred point of view. So he lacks sense of humor and his arrogance is infinite. Because he confuses the infinitesimal of his mind with the infinite Universe. This we shall stress once and again. The physicist as all humans IS only an electronic mind that fits an infinite number of cyclical space-time beings, into a geometric linguistic mapping within its 'monad'. And he is NOT aware of it. So his arrogance is supreme:

*o-point  $x \propto$  Universe of timespace cycles and worlds = fixed linguistic mapping*

The 3 great philosophers of sciences of western thought (and their counterpart eastern philosophers of Taoist and Buddhist cultures) were always aware of this. The cut off happened when Kant rejected Leibniz and became a Newtonian. But at least Kant realised that the human euclidean mind was a light space-mind and not necessarily all, as impressionist painters will latter.

Yet starting with Kant and then Hegel, which had the chuptzah (even if he understood perfectly the ternary logic of thesis-

antithesis-synthesis similar to the Sp<ST>Tf ternary Universal Grammar of all systems) to affirm Abrahamic tribal religions were superior, because they only accepted the human ego-trip of tribal Yahweh, there is a growing anti quantum paradox in philosophers which yield as infinitesimal observers to the huge power of the observable, industrial world.

This paradox inverse to that of the physicist, so huge that influences the observer, made after Leibniz, all philosophers incomplete. As they no longer dare to criticise the makers of machines and weapons, and not even the Abrahamic tribal, lineal religions of the Bronze age that back the hate between members of the same species. So we of course show a complete indifference for all what has nothing to do with the larger Universe of infinite worlds, and find the arrogance of physicists, infantile.

Now I will state a provocation to the ego of physicists (-; Mind the reader though that my 'selfies' are 'black humour', i am an infinitesimal aware of it, but i like to bust the balls of ego-centered human infinitesimals, and none are so much ego-centered as physicists.

The advantage of being a philosopher of science, is that unlike a physicist, we DO know the essence of science which is 'logic mathematics'. That is our profession. To understand the logic of mathematics. So despite Mr. Hawking's quipping, that we philosophers of science are envious and that is why we criticize his evaporating black holes, because we 'do not know mathematics' the opposite is truth.

By definition the masters of philosophy of science HAVE created mathematics and logic, the languages of space and time, since the times of Plato and Aristotle to the times of Descartes, Leibniz and Hegel. And yes, this writer, duly ignored by 'those who impose truth with power, to become the laugh of the Gods' (Einstein, the only physicist I consider to

the level of the best of our profession, which he greatly respected, along the rules of the scientific method, except when falling under the spell of Mr. Hilbert, and we will return to that).

Because the language of God is the logic of time cycles and the mathematics of spatial extensions. In this we are different from physicists who only apply the mathematics, we teach them. But especially we like the Logic behind the language of mathematics, which creates it. So let us rephrase it. Yes, Physicists do know as much mathematics as we do. And their computers even more (-;

But they do not understand the logic of it. And that is the problem. Because logic is a property of time cycles, and its repetitive causality, logic is more important than geometry. Logic is 'the beginning'. So the Greeks called God the mind of the Universe, Logos, derived from 'word', not 'geometry' meaning "Earth measurement." And that makes the whole difference, physicists do not grasp. As what they do is 'geometry', measure. We philosophers of science do Logos, (-;

Now, we told you, we will evolve mathematics, so we can fit the new concept of cyclical time and fractal space within it, as Descartes and Leibniz did to fit their time vortices and relational infinite times, as Einstein did (not by himself but by applying non-Euclidean mathematics to his description of space).

So to that aim, we just need to complete the scaffolding of mathematics and explain what a mind is, in geometric logic terms.

So we need to complete the concept of fractal quanta of energetic space of quantum physics, the concept of a Universe of multiple time cycles of Einstein, and the philosophy of science, made of causal repetitions of time cycles called laws of

science.

Thus we affirm that the Eastern, O-Cyclical concept of Time; and the E-insteinian, Relativistic concept of space, which we shall call,  $\mathbb{E}$ , is superior to the 'lineal, Abrahamic, concept of time' and Absolute' Newtonian, concept of Space.

I like to play with 'words'. So you could think that A-brahamic, Lineal, A-bsolute Space-time is a simplified, earlier version.

And we shall go even further, into the Non-AE, (Non-Aristotelian, Non-Euclidean), i-nformative concept of Space-time.

And build a new Non-Aristotelian Logic and Non-Euclidean Mathematic formalism, which will set the foundations for a new paradigm of science.

This new Geometry is simple and evident. It is based in the definition of the 'terms' which mathematics ill-defined in Euclidean Geometry, points with no parts through which only one parallel crosses, lines with no breath and shallow planes, equaled by superposition, and then once Euclidean Geometry was found to be a 'limit' of a larger pan- Geometry NOT lineal but curved inwards (elliptic) or outwards (hyperbolic), on those dark times of confusions, were UNDEFINED.

So we DID not resolve the issue. We CANNOT ESTABLISH the fundamental science of the Experienced Universe, by undefining its fundamental elements. This no way out sponsored by Cantor, who substituted points and numbers by sets, nowhere to be seen in experience, and Hilbert who affirmed 'I imagine points, lines and planes', is a failure.

In that regard, the founder of Non-Euclidean geometries Lobachevski was in the right track. We can summarize Lobačevskii's solution of the problem of the Fifth Postulate.

1. *The postulate is not provable. Because, infinite lines curve when we have a larger view, becoming exponential inversion of space-time.*
2. *By adding the opposite axiom to the basic propositions of geometry a logically perfect and comprehensive geometry, different from the Euclidean, can be developed, providing we limit infinity, (as the 5<sup>th</sup> dimension shows) hence parallels do NOT meet on the infinity, and by curving them (hence lines are part of cycles)*
3. *The truth of the results of one logically conceivable geometry or another in its application to real space can only be verified experimentally.*

### **Fractal points: the fundamental particle**

*Thus we must observe the Universe to prove mathematical statements and reduce mathematics as we do with all experimental sciences to those equations which 'are real'.*

*T.Æ does show by regressing a step back in the scaffolding of mathematics and defining those terms, as the Postulates of i-logic geometry, based in the structure of cyclical time, fractal space and the 5<sup>th</sup> dimension where:*

1) A fractal point grows in size when we come closer to it, so it has parts, its O-mind and its E-field flows of energy or limbs. Hence we define it as  $\mathbb{E}$ , an existential point.

What they perceive will depend on the Lobachevski/Gauss Constant of Time-Radius/Space-length,  $r_2/L_2$  ( $T_f/Sp$  parameter), which defines its geometric view as hyperbolic (for smaller planes), Euclidean (for the human  $H/c^2$  plane of informative spin time cycles and light space-rods).

Let us elaborate a bit more on this essential component of the Human World - NOT the only worldview on space-time there is.



Now in the post on astronomy we explain 'why', light is a c-constant rod of space, and hence  $c^2$  the factor of Lobachevski/Gauss definition of the form of the geometry. It follows that because  $h$ -planck, the constant of spin or minimal quanta of information of the human Universe is exceedingly small, and the 'degree' of Euclidean nature of a world depends on  $r^2/L^2$ , in this case  $h/c^2$  to be infinitely small so the 'radius' of a circle and the 'angle of perception' of a triangle becomes  $\pi$ , and  $180/3$ , we humans see an Euclidean light space-time.

But a bigger radius of perception (smelling minds with atomic pixels, i.e. insects) will be hyperbolic; or a larger rod of measure (action at distance in gravitation), will be elliptic (quark/black hole? perception).

Now of course, a 'science' as the human ego-centered science, which is fully unaware of its ego-centered paradox, and confuses the world of its mind with the entire Universe will ignore organic and perceptive explanations of reality, but they are THE ONLY ones that explain the whys of reality.

### **Lobachevski's pangeometry. Where is the 5<sup>th</sup> dimension: $\neg$ æ ALGEBRA, AND I-LOGIC GEOMETRY**

Now it must be understood that the universe is made of dimensions of space and time, which are opposite but equal in number and merge lineal and cyclical motions into bidimensional, 4-dimensional and 6 dimensional super organisms.

they are the six motions of time of Aristotle, and we have grouped two, dissolution and aggregation, a dimension usually studied by Analysis, as the generic name of the 5th dimension. As the arrows of present space or 4 dimension,  $ct$ , or  $vt$ , the immersion of past and future form a 6 dimensional structure. This would be the part of ' $\neg$ Ae not treated here.

Let us now consider the 3 branches of mathematics, which are 5 Dimensional analysis, algebras of time worldcycles, and spatial geometry of space quanta.

They study obviously the 6 Aristotelian motions of space-time, and as analysis is a branch of algebra, we divide our upgrading into i-logic Geometry (after the Non-Euclidean), and  $\neg\text{æ}$ , Non-Aristotelian, Non Euclidean algebra, which studies not in terms of continuous world-minds as geometry does the 'Maya of the senses', but the whole of the discontinuous Universe of infinite worlds of the 5<sup>th</sup> dimension.

Thus algebra (and analysis specifically concerned with the processes of social numbers that sum and emerge or rest, and divide and plunge down the scales of eusocial love of the 5<sup>th</sup> dimension), is a larger subject, still not fully developed by the only human world-point, which as Boylai on the view of non-E spaces, can only exclaim 'I have discovered (not invented, as he said, the ever arrogant human ego) a new strange world – and not out of nothing as he said, but out of everything'.

Now, it will surprise the reader to know that the Universe is not a continuum, but as all fractals it is discontinuum. This of course, the 'axiomatic Hilbert-like' arrogant humans do not like. So a guy called Dedekind found a continuity axiom, affirming that the holes between the points of a line are filled by real numbers, which are ratios between quantities such as  $\pi$  or  $\sqrt{2}$ , which happen NOT to exist as exact numbers, and more over represent an infinite number compared to those which do exist.

Further on, when XX c. geometers went further than Non-Euclidean Riemannian geometries into absolute geometries it turns out that the most absolute of all geometries, didn't need the continuity postulate.

This geometry, which is the ultimate absolute plane geometry

that included all others (and now further clarified by 5D i-logic geometry), reflected the absolute architecture of the planes of Existence of the Universe. It was discovered by a German adequately named Bach-mann, for its musical architectonical rigor.

It is the Goldberg variations of the theme. And it was discovered the year the chip homoctonos was found, ending all evolution of human thought, which now is busy-busy translating itself to the new species, with ever more powerful metal-minds and smaller human minds, receding into a hyperbolic state of stasis, thinking what the machines that are making them savant idiots discover belongs to their ego-trip paradox.

In terms of geometry is merely the 'realization' of the 3 canonical geometries, we have used to define a system in space, perceived from a given point of view across the scales of size of the Universe, taking into account that our 'rod' of measure is light speed-space.

Indeed, we see reality through light's 3 Euclidean dimensions and colors, which entangle the stop measures of electrons.

Yet light-space and any relative size of space of the Universe must be analyzed with the pan-geometry of the 5<sup>th</sup> dimension, first explained by Lobachevski, as we see smaller beings with a hyperbolic geometry, which multiplies its 'fractal forms', and larger ones with an elliptic geometry which converges them into single, spherical ones. Hence the hyperbolic geometry of quantum planes, the elliptic geometry of gravitational galaxies, and the middle Euclidean geometry of light space-time, in which the Lobachevski's constant of time and space is minimal, since our quanta of information H-Planck is minimal compared to our quanta of space-light speed.

The 3 geometries of points of views in the symmetry of the 5<sup>th</sup>

dimension.

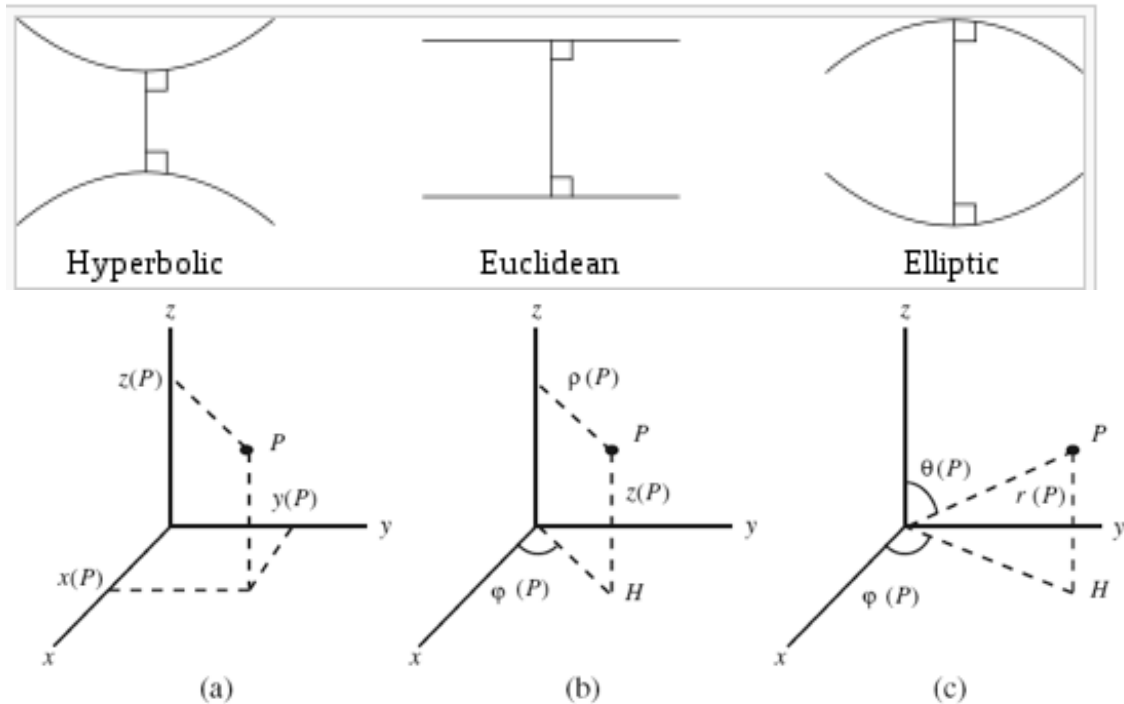


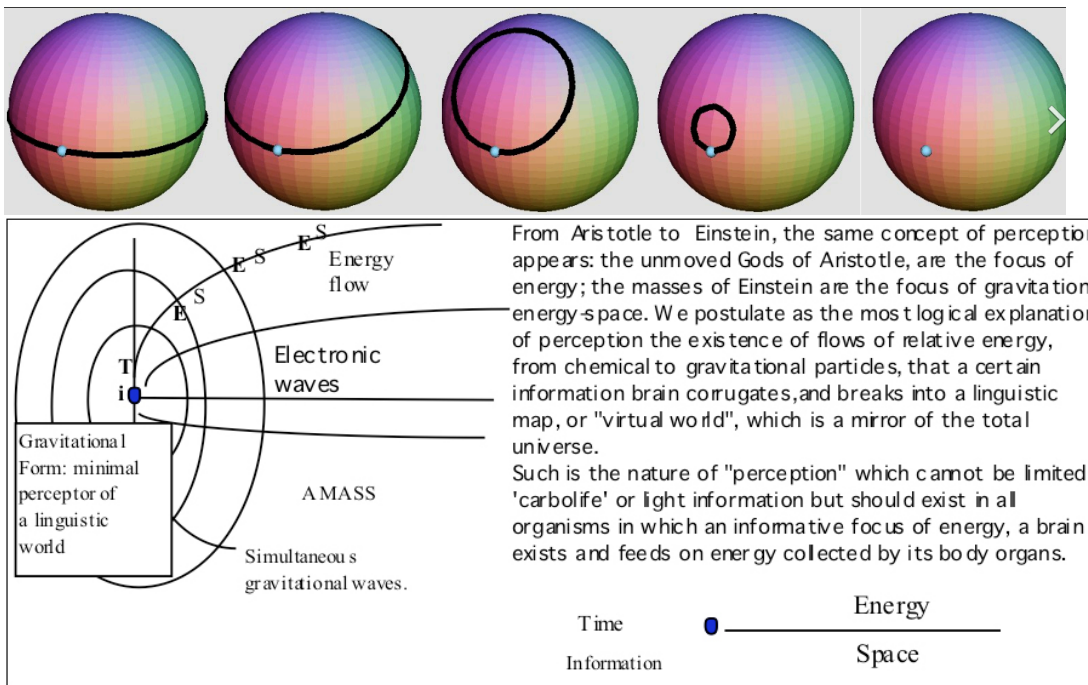
Figure 1.8: (a) Cartesian, (b) cylindrical, and (c) spherical coordinates of a point  $P$  in three dimensions.

In the graph, the world of human perception was in the work 'the World' of Descartes not the perception of the entire Universe, but that of the Euclidean human mind, which in Absolute Geometry, defines its linearity according to the factor that measures the relative ratio between the 'cyclical eye radius' of the informative observer and the lineal 'space distance' it measures:  $Tf/Sp \approx r^2/k^2 \approx h/c^2 \approx 0$  for the human lineal Euclidean Universe, an expression that we will later clarify in depth when studying the geometry of the 5<sup>th</sup> dimension.

The Universe thus has different worldviews, with different geometries, according to the size or length rods we use to perceive it with in human beings are the very large rods of

ultra-fast light speed, and the size of the 'quanta' of information or cyclical form of the observer, which in the human case is extremely small, given the fact that we are electronic eyes, which perceive H-Planck quanta (spins) as our unit of information.

However there are different other worlds of relative sizes of information and length, as we move down or up in the scales of beings of the 5<sup>th</sup> dimension. All of them can be defined as either elliptic in its perception (larger beings) or hyperbolic (smaller beings), since as we move up and down, the  $Tf/Sp$  changes, growing for smaller hyperbolic beings and diminishing for elliptic larger beings, departing from our single Parallel Eucidean world.



Mathematics, as a language that represents reality with simplified symbols, has a limited capacity to carry information. Its symbols, geometric points and numbers simplify and integrate the fractal, discontinuous reality into a single space-time continuum, the Cartesian Space/Time graph, made of points without breath.

However the points of a Cartesian plane or the numbers of an equation are only a linguistic representation of a complex Universe made of discontinuous points with an ‘internal content of space-time’. In the real world, we are all pieces made of fractal cellular points that occupy spaces, move and last a certain time. When we translate those space-time systems into Euclidean, abstract, mathematical ‘numbers’, we make them mere points of geometry void of all content. But when we look in detail at the real beings of the Universe, all points/number have inner energetic and informative volume, as the fractal geometry of the Universe *suddenly increases the detail of the cell, atom or far away star into a complex complementary entity.*

So we propose a new Geometrical Unit - the fractal, Non-Euclidean point with space-time parts, which Einstein partially used to describe gravitational space-time. Yet Einstein missed the ‘fractal interpretation’ of Non-Euclidean geometry we shall bring here, as Fractal structures extending in several planes of space-time were unknown till the 1970s. So Einstein did not interpret those points, which had volume, because infinite parallels of ‘forces of ‘—motions’ and information’ could cross them, as points, which when enlarged could fit those parallels, but as points in which parallels ‘curved’ converging into the point.

This however is not meaningful, because if such is the case parallels which are by definition ‘straight lines’, stop being parallels. So we must consider that what Einstein proved using Non-Euclidean points to explain the structure of space-time is its fractal nature: points seem *not* to have breath and fit only a parallel, but when we enlarge the point, we see it is in fact self-similar to much bigger points, as when we enlarge a fractal we see in fact self-similar structures to the macro-structures we see with the naked eye.

That is in essence the meaning of Fractal Non-Euclidean

geometry: a geometry of multiple ‘membranes of space-time’ that grow in size, detail and content when we come closer to them, becoming ‘Non-Euclidean, fractal points’ with breath and a content of ‘—motions’ and information that defines them.

Einstein found that gravitational Space-Time did not follow the 5th Euclidean Postulate, which says:

*Through a point external to a line there is only 1 parallel*

Euclid affirmed that through a point external to a parallel only another parallel line could be traced, since the point didn’t have a volume that could be crossed by more lines:

*Abstract, continuous, one-dimensional point:*

• \_\_\_\_\_

Instead Einstein found that the space-time of the Universe followed a Non-Euclidean 5th Postulate:

*A point external to a line is crossed by  $\infty$  parallel forces.*

*Real, discontinuous, n-dimensional points:        ===== ●*

This means that a real point has an inner space-time volume through which many parallels cross. Since reality follows that Non-Euclidean 5th postulate, all points have a volume when we enlarge them, as cells grow when we look at them with a microscope. Then it is easy to fit many parallels in any of those points. Such organic points are like the stars in the sky. If you look at them with the naked eye they are points without breadth, but when you come closer to them, they grow. Then as they grow, they can have infinite parallels within them. Since they become spheres, which are points with breadth - with

space-time parts.

*So space-time is not a 'curved continuum' as Einstein interpreted it, but a fractal discontinuous.* The maths are the same, the interpretation of reality changes, adapting it to what experimentally we see: a cell-like point enlarges and fits multiple flows of '—motions' and information, and yet it has a point-like nucleus, which enlarges and has DNA information, which seems a lineal strain that enlarge as has many point-like atoms, which enlarge and fit flows of forces, and so on.

*So each point is in fact a 3-dimensional point, and if we go to the next scale, a  $3 \times 3 = 9$  dimensional point and so on. Yet those dimensions are the so-called fractal dimensions, which are not 'extended to infinity' but only within the size of the point.*

In Euclidean geometry, a point has no volume, no dimension, but string theorists say that even the smallest points of the Universe, cyclical strings, have inner dimensions that we observe when we come closer to them. That is the essence of a fractal point: *To be a fractal world, a space-time in itself.*

*'Any Non-Euclidean point is a fractal space-time with a minimal of 3 internal, topological, spatial dimensions and an external time motion in the  $st+1$  ecosystem in which it exists'*

The Universe can be perfectly understood when the human mind and its subjective vision of reality from the perspective of its limited 'Aristotelian' and 'Euclidean', logic, (temporal and visual, spatial perception of the human mind) is considered only one of the infinite points of view, performed by particles and heads that gauge information, move '—motions' and constantly create the events of the universe. Each of those particles and heads create its own perspective and mind view, or mapping of the Universe to which they act-react accordingly.

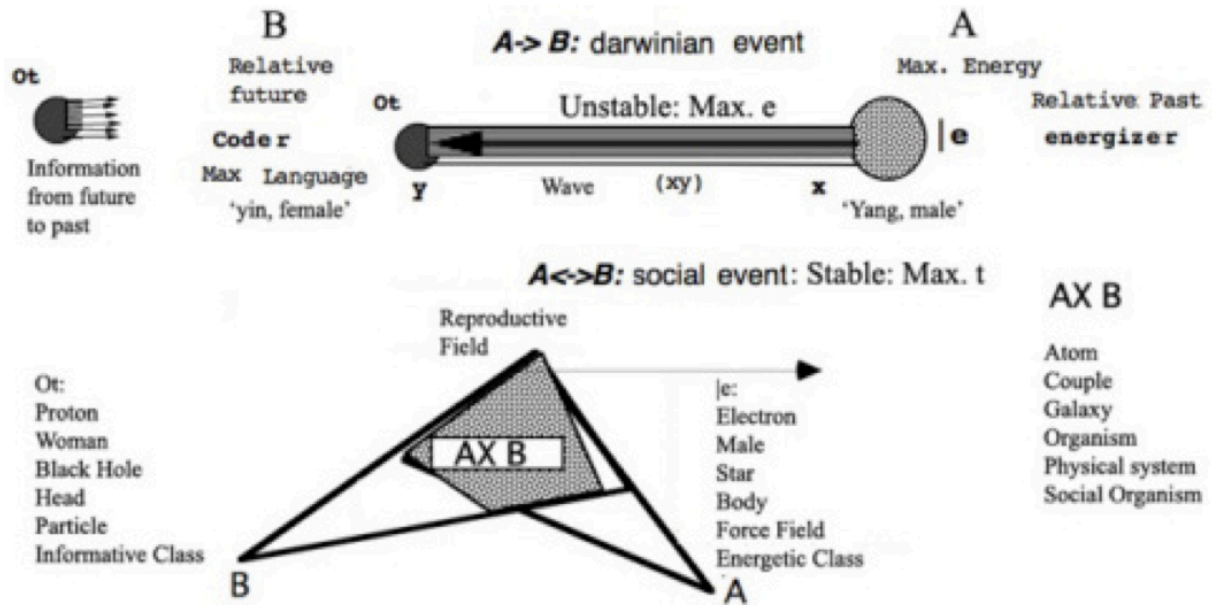


The fundamental particle of the Universe is not a physical form but a logic particle: a knot of time arrows, which in any scale of reality, from physical particles (quantum knots of '—motions' and information) to biology (knots=networks that absorb '—motions', information and reproduce and evolve into bigger knots) act under a single mandate: to maximize those time arrows, a fact that we formalize with an equation, the function of Existence:  $\text{Max. } \sum \text{Sp} \times \text{Tf}$ ; which is the fundamental function of both, logic and mathematical languages. In the graph, all such points of view, will define a system of relative perpendicular coordinates, through which it will enact its time arrows, departing from a central knot of information.

In the graph, apperception of the Universe happens by reducing the cycles of time into a single spherical point, according to the topological properties of all spherical systems, which can diminish in size without deformation.

This is called the Poincare Conjecture, and his recent proof was the most important finding on mathematics for decades. It simply speaking only n-spheres can reduce without limit an n-dimensional Universe into a fractal mirror without deformation and tearing. And that is why there is a fundamental dominant membrane-point system in all the organisms of the Universe, which creates the order of reality. The paradox though is that the membrane, the time cycle is moving very fast, and the point in the center is a static mind.

2) A line is now a wave of communication of energy and information between points.



Finally to mention the inversion of 'scales' if we use the metrics of information, which increase as we become smaller, or the metrics of size which increase as we become bigger. Yet the product of both become invariant:

$Sp \times Tf = \Delta \pm 4$ , where the 9 planes of existence of the logarithmic  $10^{10}$  scale of the Universe, are equivalent as each one has more and less energy and information. So we should write in the logarithmic scale, each plane as the equal sum of its logarithmic capacity to carry information and its relative size:

$$\begin{aligned}
 Sp-4 + Tf+4 &= \text{Force} = Sp-3 + Tf+3 = \text{Atom} = Sp-2 \\
 + Tf+2 &= \text{Molecule} = Sp-1 + Tf+1 = \text{Cell/Matter} = Sp + Tf = \text{Human} \\
 \text{Scale} &= Sp+1 + Tf-1 = \text{Planet} = Sp+2 + Tf-2 = \text{Star} = Sp+3 + Tf- \\
 3 &= \text{Galaxy} = Sp+4 + Tf-4 = \text{Cosmos}.
 \end{aligned}$$

We however simplify this equal value of all  $Sp \times Tf = \text{world-planes of existence}$  for easier analysis, considering only the relative  $Ui$  scale of growing planes, with a cardinal that starts

in the smaller:

Forces:  $\Delta=1$ , atoms:  $\Delta=2$ , Molecules  $\Delta=3$ , Matter/cells  $\Delta=4$ , human organisms,  $\Delta=5$ , Planets,  $\Delta=6$ , Stars,  $\Delta=7$ , Galaxies,  $\Delta=8$ , Cosmos,  $\Delta=9$ , between the invisible beyond human informative perception dark energy and dark matter.

It is thus clear and we shall use the term STience, to differentiate this philosophy of science, and perspective on reality, that the Universe is a game of space-time, and each science the study of one of its Universal Planes.

It has failed though for centuries to explain the whys and ultimate structure of that space-time puzzle. It has been 'Science', that is only a Science of space. STience is a wider concept where space is submissive to the flows of time and its actions, where beings are space-time beings and so all sciences are stiences that study varieties of space-time beings of different Universal Planes.

Science has been corrupted in its ultimate 'quest' for the whys of the Universe by its own success in a rather more pedestrian task, to find the laws of measure and equations of motion in space and time, the hows of reality. This shallow description of motions in an external world today is often confused with absolute knowledge. It is not. Because while we know we move in space and time, we have yet to solve what time and space is in its deepest sense.

Stience will not be completed till we know the whys of those motions of space and time; and specially the whys of existence in space and time. In other words, till we do not find an epistemology of 'Stiences', which accepts the fact that the Universe is made of relational space-times distributed among  $\infty$  relative Space-time systems and species.

Thus there should be a philosophy of science, we shall call

‘STience’ which is dedicated to the study of all entities as made of space and time parameters.

Now each of the new postulates of i-logic geometry has an enormous range of phenomena to study with them. Let us consider merely a theme related to the waves of communication of the 2<sup>nd</sup> postulate, locomotion as reproduction =exchange of field forces and forms.

In the first case the fundamental law of quantum physics,  $Tf$  (Fermion)  $< Sp$  (boson)  $> Tf$  (Fermion) allows the reproduction and communication of information between 2 relative mind-particles. In the second case we solve the paradox of Zeno and understand the true meaning of motion in a 5D fractal space-time.

Thus, the line, as distance or dimension,  $D$ , or as motion, or speed,  $v$ , is in fact a wave, a bidimensional space-quanta, and we shall then find that indeed,  $H$ ,  $K$ , and  $c^2$ , the quanta of space of the 3 main quantum, thermodynamic and gravitational scales of physical systems are bidimensional.

We can though consider a perspective based on the relative 'number of parameters' or dimensions needed to define a being.

The point is a scalar cycle, which can be defined with a single parameter of length or frequency in its relative space or time states.

Then with 2 parameters, the definition is either a wave that communicates two points in a harmonic oscillator or a clock of time in motion with angular frequency,  $f$  or  $w$ , which needs also two parameters, because it is indeed twice as complex as the point.

You can define a line with a single dimension; you need 2, to

define the cycle.

3rd postulate: the logic of communication

But there is will in the Universe. Communication can be darwinian or collaborative, between 2 or more than 2 in networks. Who decides that? The will of survival of each system. And we will elaborate on that. But basically systems exist to absorb more space and more time, more energy and information in the common language for their limbs/fields bodies/waves and particles/heads to survive, as they ARE made of space and time of energy and information.

So there is a set of rules in the brain-point to decide what  $\pm E$ , I to absorb or emit to survive. So 4 quantum numbers, 4 genetic letters, 4 drives of survival, feeding on energy, moving expelling energy, perceiving with information and communicating information with a limited scope to create social groups, new scales of the 5th dimension, through a common language, or full in sexual reproduction, become the 4 strategies of survival of systems.

For the sake of arguments, we shall resume them in 5 letters, a, for accelerations (locomotion studied by physics), e for energy feeding, i for informative communication,  $\text{\o}$ , for an offspring that reproduces the being, and u for social communication that creates new networks and super organisms.

But in a mere mathematical geometrical way, we can talk of two type of motions, parallel motions among systems that communicate to evolve socially together, and perpendicular motions, in which systems 'cross' other systems, penetrating its vital space with the usual consequence of darwinian fighting and annihilation of the information of a system.

Thus *perpendicularity and parallelism acquire in T.CE, also an organic nature, which is essential to classify the way*

*systems relate to each other both in mathematical logic and biologic terms at the same time, and for that there must be a will of survival, automatic, apperceived, vegetative or subconscious in all beings, imposed by the simple fact that only systems who perform those 5 actions of survival, a,e,i,o,u, 'exist' as time goes by. And those who don't feed, inform, reproduce and evolve socially (with the geometric motions we must interpret in organic terms) die and so the program of survival imposes itself.*

We need the 3<sup>rd</sup> man, the point of view in the middle of the cycle. He who measures. And he who measures is not as the admirer of Newton Mr. Blake painted in his famous portrait, 'God', a geometer with a compass (though he does trace cycles in this he was right, and he was an artist, a creator, a painter in 5 dimensions, in this he was right too). But he paints with a logic brush, the brush of time cycles, 'of a logic higher than that of man' (Saint Augustine).

3) Two points are equal depending on their internal and external similarity (a logic, behavioral postulate with a corollary that connects non-e geometry with social evolution: 2 similar points will associate themselves, in parallel networks, depending on similarity; 2 different points, will use each other as energy, in Darwinian, perpendicular events).

- *3rd Postulate*: Equality is no longer only external, shown in the spatial perimeter of any geometrical form (3<sup>rd</sup>Euclidean Postulate) but also internal and further on it is never absolute but relative, since we cannot perceive the entire inner form of a point – hence the strategies of behavior such as camouflage. Forms are self-similar to each other, which defines different relationships between organic points, according to their degree of self-similarity. The 3<sup>rd</sup> postulate is thus the key to explain the behavior of particles as the degree of self-similarity increases the degree of communication between beings. Some of the most common behaviors and 'events derived from this

postulate are:

1) Reproductive functions in case of maximal self-similarity or complementarity in energy and form. For example, in the body, the Max Sp x min. Tf (male)  $\leftrightarrow$  Min. Sp x Max Tf (female) form the complementary couple

2) Social evolution, when points share a common language of information, they superpose their combined momentum. In our notation:

$$Sp \times Tf = Sp \times Tf \rightarrow 2Sp \times Tf.$$

This behaviour is standard in most 'hyperbolic' infinitely parallel systems and bidimensional Sp+Sp or Tf+Tf equal systems. For example it is the superposition of waves, the bidimensional layers of liquids, the superfluid properties of quantum systems, etc.

3) Darwinian devolution when forms are so different that cannot understand each other's information and feed into each other, *establishing a relationship of perpendicularity akin to an elliptic geometry, in which the predator intersect functionally the prey and devours it.*

In such cases if those 2 entities meet they will start a process of 'struggle for existence', trying to absorb each other's energy (when  $Sp_e = Sp_e$ ).

Finally they will simply not communicate; when there is neither a common information to evolve socially nor a common energy to feed on.

In this case the pan geometry is 'discontinuous', without need for complicated Geometrical symbols - a geometry of 'cat alleys', of 'dark spaces' and parallel Universes, where we ignore completely the other being as it does not invade of spatial

territory nor has anything to 'tell us'.

Yet because any point absorbs only a relative quantity of information from reality, self-similarity is relative and it can be faked for purposes of hunting, allowing biological games, such as camouflage and capture, or sociological memes that invent racial differences, allowing the exploitation of a group by another.

The geometric complexity of the 3rd Postulate is caused by the topological forms created by any event that entangles Multiple Spaces-Times. Since it describes the paths and forms of dual systems, which connect points: Self-similarity implies parallel motions in herds; since equal entities will maintain a parallel distance to allow informative communication *without interfering with the reproductive body of each point*.

Darwinian behavior implies perpendicular confrontations, *to penetrate and absorb the energy of the other point*. Finally, *absolute, inner and outer self-similarity* brings boson states, which happen more often to simpler species like quarks and particles that can form a boson condensate as they do in black holes, *where the proximity of the points is maximized*. *And indeed, the same phenomenon between cells with the same inner information /DNA originates the 'collapse' of waves into tighter organisms*.

The 3<sup>rd</sup> Non-Euclidean postulate is implicit in the work of Lobachevski and Riemann who defined spaces with the properties of self-similarity (Riemann's homogeneity), which determines its closeness (Lobachevski's adjacency).



source of light is placed at the focus of a paraboloidal mirror, so that its rays are reflected from the mirror in a beam parallel to its axis. Automobile headlights are similarly constructed (figure 28).

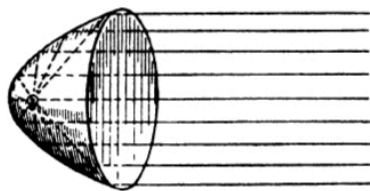


FIG. 28.

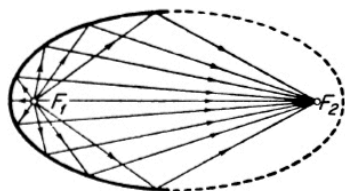


FIG. 29.

rays issuing from one of its foci  $F_1$  and reflected by the ellipse are collected at the other focus  $F_2$  (figure 29), and in the hyperbola the rays originating from one of its foci  $F_1$  are reflected by it as if they originated from the other focus  $F_2$  (figure 30).

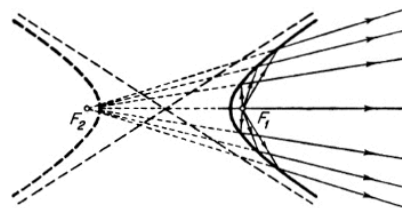


FIG. 30.

**The directrices of the ellipse and the hyperbola.** Like the parabola, the ellipse and the hyperbola have directrices, in this case two apiece. If we consider a focus and the directrix “on the same side with it,” then for all points  $M$  of the ellipse we have  $\rho/d = \epsilon$  where the constant  $\epsilon$  is the eccentricity,

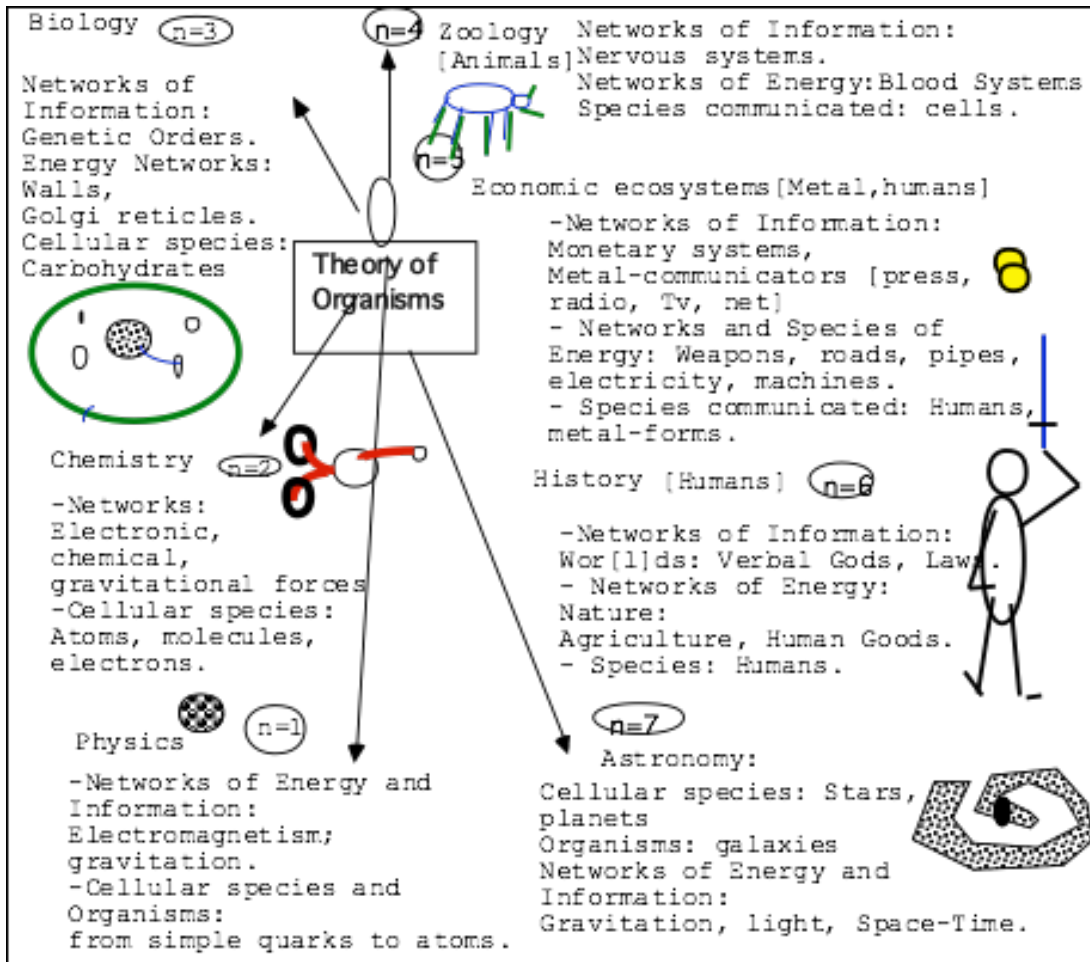
In the graph, the 2 essential forms of communication between dual systems, attractive and repulsive, according to the orientation and external or outer location of its foci. An interesting question of astrophysics is the analysis of orbital systems, which MUST by definition have a second focus. What is the meaning of the 2<sup>nd</sup> focus of the sun?

If we add the parabola and other exponentials, which are the essential  $\Delta = sxT^n$ , curves of the 5<sup>th</sup> dimension, to the canonical cycle of a single point of view, we obtain the conic, which is the canonical point of view oriented along two different geometries of the 5<sup>th</sup> dimension (equal when the orientation is in the same plane):

4) a plane is a network of points with ‘dark holes’ between them (hence the 96% of dark matter of each points outside its ‘plane of existence’).

### The scales and STiences of reality.

As the widest one is the concept of a topological network-plane, of the 5<sup>th</sup> dimension we can consider it in more detail.



*In this old graph (where  $n$  is old notation for an  $\Delta$ -plane), we classify all the scales of the 5th dimension as super organisms according to the combined 3 geometries which put together create a network plane:*

*-From the perspective of the central point, which branches into a fractal network (the standard Geometry of elliptic spherical forms, 'not explored by geometers of the XIX c. because fractal mathematics did NOT exist) the world is an elliptic geometry with him at the centre, connected to all other  $\Delta-1$  parts. So networks are elliptic Non-E Geometries where there ARE not parallels as the brain, black hole or Wall Street knot of the organism galaxy or economic ecosystem is connected through its informative networks (nervous, gravitational and financial systems) and its quanta of information (electric messages, gravitational waves and*

*money) to all its  $\Delta-1$  'slave cells'. Those cells are unconnected. So they exist in a hyperbolic geometry of infinite parallels. Thus any  $\Delta$ -super organism is a group of  $n-1$  cells joined by energetic, informative & reproductive networks that communicate them. Those  $\Delta-1$  cells are also superorganisms made of small  $i-2$  molecules joined by  $Sp$ ,  $ST=exi$  &  $Tf$  networks and so on and so on. Thus we define any system as an  $\Delta$ -superorganism made of smaller, similar  $\Delta-1$  super-organisms. And each  $\Delta$ -scale of superorganisms & its ecosystems are studied by a human science but all of them follow the same Invariances & emergence Laws & Galilean Paradoxes of 5D Metric formalized with the tools of Existential Algebra & Non-AE= $i$ -logic Geometry.*

We unify all Natural Systems as superorganisms using a single template definition, since they differ only by the  $i$ -scale or ecosystem in which they exist or the specific types of energy & information their networks are made of:

‘A super-organism (name an organism) is a population of iterative (name a cellular species), related by informative (name a language or informative force) and energy networks (name a kind of energy), which combine into a reproductive network that iterates the organism.’

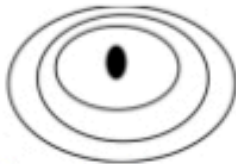
Fill the gaps with a specific species, language of information and force of energy and we can define any network-organism, which will be a ‘part’ of a whole world-plane or ecosystem, composed of several species that occupy different ‘vital spaces’ but interact through the same language of energy & information:

Any world-plane or ecosystem (name a specific world-plane) is a population of several (name the species), related by informative languages (name their languages or informative forces) and energy networks (name the energies).

I.e.: The 'world-plane of 'zoology' includes all beings of relative size,  $i=6$ , that use light as information, called 'animals'. The world-plane 8, a galaxy, includes as parts, all celestial bodies of size  $i=7$  related by gravitational networks, etc.:

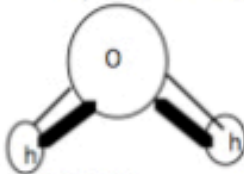
**Δ-3:** An atomic organism is a population of (electronic) energy and (nucleonic) information, related by networks of (gravitational) information and (light) energy.

**Δ-2:** A molecular organism is a population of atoms, related by networks of gravitational energy and networks of electromagnetic information (orbitals, London, Waals forces).



An atom is an organism, with a gravitational brain, the nucleus, a vital space of energy species, the orbitals, and networks of gravitation and light energy that link both organic parts.

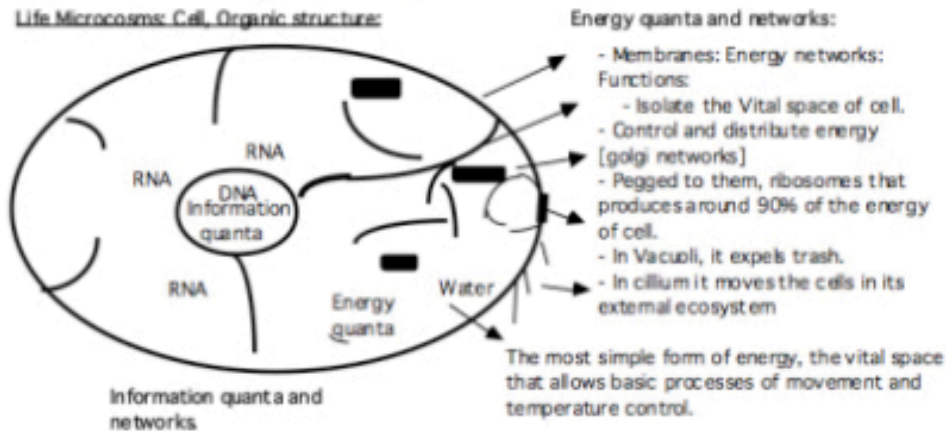
- A molecular organism is a population of atoms, related by networks of gravitational energy, and networks of electromagnetic information [orbitals, London forces, Van der Waals forces].



An 'organic' molecule, water, can be defined as a society of atoms, linked through gravitational and light energy and information networks.

- A 'cellular organism' is a population of molecules, related by networks of carbohydrate energy [water, ribosomes, cilium], and networks of genetic information [DNA-RNA-Golgi reticules.]

Life Microcosmos: Cell, Organic structure:



Energy quanta and networks:

- Membranes: Energy networks:
- Functions:
  - Isolate the Vital space of cell.
  - Control and distribute energy [golgi networks]
  - Pegged to them, ribosomes that produces around 90% of the energy of cell.
  - In Vacuoli, it expels trash.
  - In cilium it moves the cells in its external ecosystem

The most simple form of energy, the vital space that allows basic processes of movement and temperature control.

Information quanta and networks

Nucleus: Functions: Genetic information. quanta: DNA.

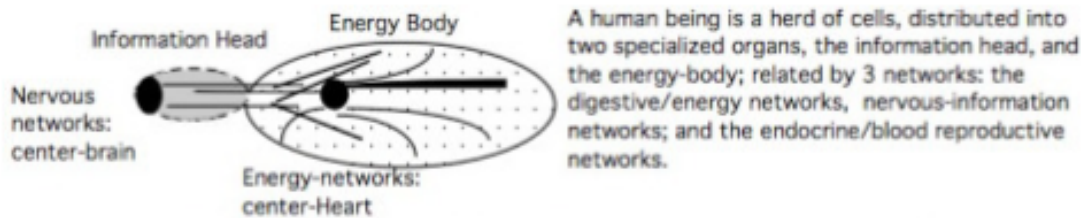
Simpler quanta: RNA: Transmits the orders of DNA to the different energy networks of the cell, controlling the body for the DNA-brain.



**$\Delta-1$ :** A cellular organism is a population of molecules, related by energetic networks (cytoplasm, membranes, Golgi reticules) and genetic information (DNA-RNA.)

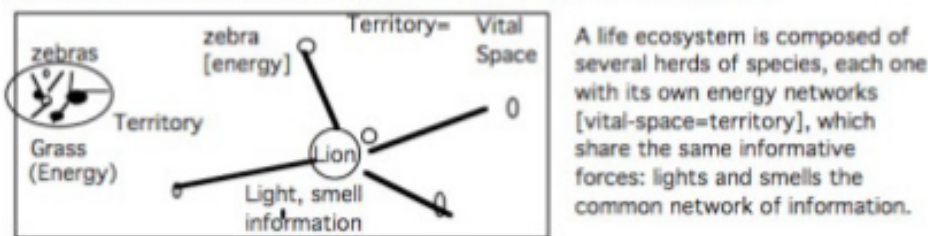
**$\Delta=0$ :** A human organism is a population of DNA cells, related by networks of genetic, hormonal and nervous information and energy networks (digestive and blood systems).

**$\Delta+1$ :** An animal ecosystem is a population of different carbon-life species, related by networks of light information and life energy (plants, prey).



An animal, human or plant is basically a carbolife organism, an organism constructed around a basic 'quantic species', the carbon atoms, and two other atoms very closely related to the carbon atom [nitrogen and oxygen, the 6, 7, and 8 element of the Mendeliev Table]. Yet those organisms are not the limit of social growth in the Universe of carbolife. Since those organisms associate in bigger systems, ecosystems [since they are not so well organized internally] where groups hunt energy and perceive information, in a single word, exist.

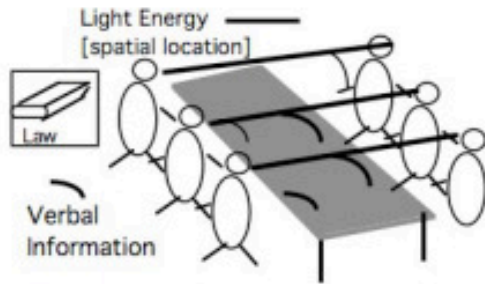
- An 'animal ecosystem' is a population of carbolife species, related by networks of light information, and networks of life energy [plants, prey]



**$\Delta+1$ :** A historic organism or civilization is a population of humans, related by legal and cultural networks of verbal information and agricultural networks of carbon-life energy.

**$\Delta+1$ :** An economic ecosystem or nation is a population of human workers/consumers and machines, related by networks

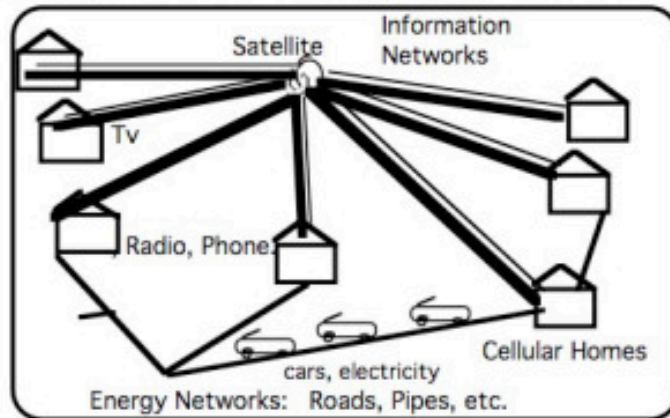
of digital information (money, audiovisual information, science) & energetic networks (roads, electricity)



A human group is like a cellular body communicated through verbal codes of information [words, laws, mass-media], and systems of energy [light-spatial location, light based food, such as plants and animals]. We talk of societies as organisms, of a different complexity, from minimal social networks, with a reproductive function [family], to massive, more sophisticated social networks [nations, civilizations].

- A bio-economic ecosystem is a territorial space {Metal-Earth; Economic nations ruled by money} in which two organic species, co-exist, a population of human workers/consumers and a population of informative and energetic machines. Both share and sometimes compete for jobs and territorial space, through networks of verbal thought [laws, ethics], digital information [money, mass-media, science] natural goods, energy, road and electric networks.

Both species men and machines establish relationships of symbiotism [consume, and work] and relationships of Darwinian struggle [war, competence for jobs].



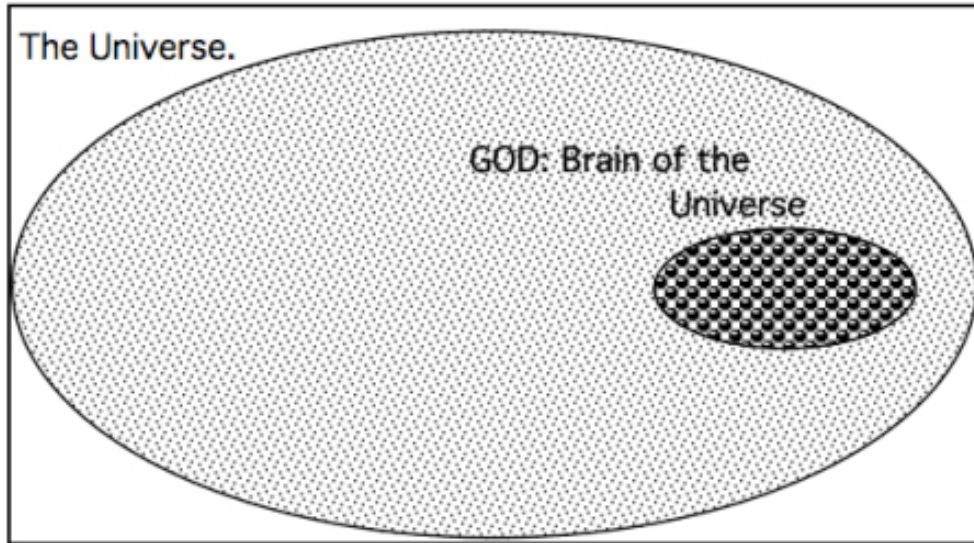
An economic ecosystem differs from a historic organism because they use different languages of information (civilizations use verbal or ethic laws while economic ecosystems use digital prices) and include 2 different species: human beings and machines.

**Δ+3:** A galaxy is a population of light stars and gravitational black holes, related by networks of gravitational information and electromagnetic energy.

**Δ+4:** A Universe is a population of galaxies joined by networks of dark matter and energy.



A galaxy is an organism, with a gravitational brain, the black hole, a vital space of energy species, the star orbitals, and networks of gravitation and light energy that link both organic parts.



Discontinuity is essential to pan geometry and the continuity axioms is no needed to build them: Each super organism is a network because it has an enormous amount of dark space-times it does NOT see - cat alleys that minds do not need.

The i-logic of Non-Aristotelian, Non-Euclidean geometry, of the ternary causality of a  $\pi$  cycle, made of 3 diameters in its perimeter means that the diameters of the protective membrane blind the system, who only sees what its connected sensors see.

Thus the 3 diameters in the simplest 1-sphere system (a disk) cover 96% of a  $\pi$ -perimeter surface, letting the point of view in the center, see only a 4% of light, through the holes of the membrane, leaving  $\pi-3/\pi$  96% of dark matter for the logic mind to see without the glaring of light.

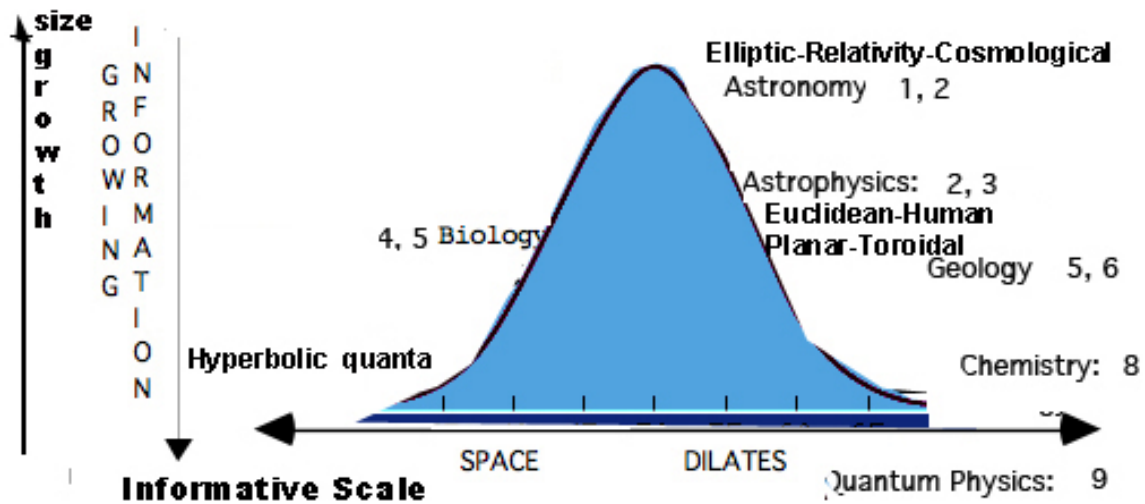
This is in fact what we do NOT see of the Universe across the



halo membrane of our spiral galactic disk (proportion of dark energy and matter).

So we can consider that our electronic eyes miss 96%, which is the volume beyond our perceived scales of the 5th dimension, which however exists in the larger russian doll of gravitation.

### Unification of all sciences. Definition of Universe.



Thus we offer a definition of the Universe from the perspective of the philosopher of science, which we will elaborate and explain in great detail in the rest of this post.

"The Universe is the sum of all the symmetric, ternary super organisms (spatial synchronous view) performing a world cycle of 3 ages between generation and extinction (diachronic point of view), as they travels through 3 relative planes of the 5th dimension, growing in size and diminishing in a balanced,  $Sp \times Tf = \Delta \pm 1$  survival form, performing from its centred point of view, the 5 space-time actions of absorption and emission of energy and information, (active meaning of space and time),  $\pm \Delta e, i, f, u$ , which ensures their survival."

As each science merely studies space-time cycles and relationships around a given fractal scale of the 5th dimension:



## II. THE HUMAN I=EYE>WOR(L)D

### RELATIVITY REVIS(IT)ED

#### **The Human Point of view as one of the many infinite worlds.**

Now the proper way to understand T.Æ requires a comprehension of all those planes of existence of reality and its isomorphic laws, and common space, time, 5D and mental-linguistic properties departing precisely from each o-point of view, both considering its geometrical laws and inverse arrows of hyperbolic and elliptic motions, which explain mathematically all kind of facts, from the perfect transfer of motion (downwards) and information (upwards).

As the elliptic geometry allows a single huge point of view of the upper dimension,  $\Delta+1$  to coordinate through its networks the motion OF ALL ITS intersecting micro-points of the lower dimension.

This we can explain organically with the concept of networks connected to cells, fields connected to particles, but also geometrically considering that there are NOT parallel lines in the upper elliptic geometry where the 'whole resides', hence all micro-cells are connected to it, and with the concept of simultaneity, as its messages arrive simultaneously to all its elements (a much more profound simultaneous concept to that of Minkowski's 4D space-time, which we soon will have a laugh at (the philosopher of science can at least have some humor as Leibniz on Newton, about those who ignore us :))

Now seriously personally my favorite description is the geometric one and in this I coincide with my 'fav' Physicist, Mr. Einstein. Consider the other way around, the existence of no connections with the smaller beings in the same plane that

allows its co-existence, while at the same ‘times’, there is synchronicity in its time clocks, between the relative future form of the whole and the relative past elements. Here is where Einstein’s work flourishes.

The future point which synchronizes its motion with the parallel Hyperbolic space of its infinite fractal forms, whose ‘angle of parallelism’ tends to zero as they become smaller (Lobachevski), allow the beautiful symmetry of co-existing spaces displaced in time, which is at the heart of the proper treatment of the space-time symmetry between wholes and parts, of ‘advanced 5D metric’. So we shall just bring you an image here:



*As we change the distance in time-space between the larger*

*whole and the smaller parts, the fractal structure of the 5Dimension reveals itself, and the number of parallel beings in circular regions, that coincide roughly in space, but are displaced in time, define properly the motions of Space-Past, and Time-Future,  $Sp < Tf$ , which is the final symmetry of the 5<sup>th</sup> dimension we shall tackle now.*

Now Euclidean space is defined by a Minimal  $Tf/Sp = r/k$ , where  $r$  is the curvature or speed of a time clock and  $k$  the length of a rod. In the human case, the relationship is so small that the Geometry of our perception becomes Euclidean.

Yet as we perceive smaller scales the geometry becomes hyperbolic, and infinite parallel beings, our cellular fractal parts, with a faster  $Tf$  and much smaller rod of measure appear. And vice versa. So needless to say the scientific  $r$ =evolution brought about by 5D cyclical, fractal space-time requires the completion of the logic and mathematical understanding of the incomplete revolution brought about by Non-Euclidean geometry, of which Einstein only used for its analysis of light space and the upper 'elliptic' gravitational scale, the elliptic Riemannian version proper of that larger world.

We thus will observe 3 type of geometries, according to our 'angle' of 5D motion and its simple metric:  $Sp \times Tf = K$ :

- In a single plane of mechanical and Thermodynamic forms, we shall observe lineal Euclidean geometries transmitted by the 3 perpendicular dimensions of light space, as neither  $Sp$  nor  $Tf$  suffers any deformation. Both remain constant, so we observe a holographic Universe, where  $Sp = K/Tf$  define according to both parameters most equations of Mechanics and Thermodynamics. For example:  $Sp$  (volume) =  $K/Tf$  (pressure) is the equation of the commonest gas space around us (atmosphere).
- In the upper gravitational space-time, as 'space enlarges'

while 'time slows down' it appears a Riemannian, elliptic geometry one of the non-Euclidean geometries that completely rejects the validity of Euclid's fifth postulate and modifies his second postulate. Simply stated, Euclid's fifth postulate is: through a point not on a given line there is only one line parallel to the given line. In Riemannian geometry, there are no lines parallel to the given line because space enlarges, thus from our smaller perspective we see those lines diverging, and time slows down. And those are the exact effects defined in General relativity.

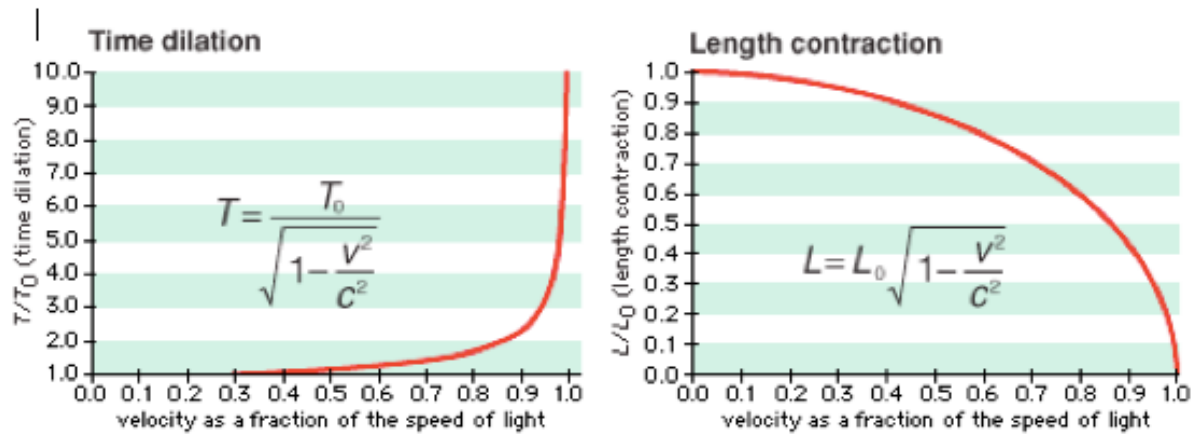
- On the other hand the lower quantum scales will appear from our perspective made of point-particles, and those point-particles will appear to be crossed from our larger perspective by multiple parallels. So the charges and particles of quantum physics will show the inverse hyperbolic geometry, crossed by multiple parallels.

**The human euclidean world and Einstein's r=evolution: why we are euclidean, light is hyperbolic and gravitation is elliptic.**

In that regard, the harmonization of the 3 geometries observed in the Universe, our Euclidean light-space with the 3 obvious perpendicular coordinates of light (magnetic, electric and c-speed field), and the geometries of the larger gravitational world and the smaller world of quantum physics, can only be achieved understanding how the different arrows of the 5<sup>th</sup> dimension distort our perception of larger and smaller realities. The larger ones have slower time cycles and bigger space distances and so we see it with an elliptical 'growing space' form, and an slower time rhythm, which 'balance each other'.

It is the famous  $\beta$  factor of Einstein's relativity that as we 'speed up' enlarging our content of energy and translation in space (Max. Sp), slow down by the same ratio the speed of our clocks of time (Min. Tf) according to the metric of the 5<sup>th</sup>

dimension:  $Sp \times Tf = K$ , since we are in fact travelling through it:



*In the graph, all systems are  $Sp \times Tf = \text{Constant}$  symmetries of spatial entropic motions and temporal information, defined along 2 limiting constants of the 5th dimension. The Human Universe has the limits of the Thermodynamic  $o T$ ,  $o$  Time constant and the limit of entropic  $C$ -speed constant of Space. Thus as we reach the 'hyperbolic limits of our 'Klein disk' (the galaxy-organism), the divergence of our parameters of space-time 'explode' any system (even the simplest particles), which would never be able to reach those limits without exploding into radiation,  $E=mc^2$ . Yet the metric is conserved as  $T \times L$  is always constant.*

*This is the ultimate 'real' meaning of the Lorentz contractions from an 'organic', 5-Dimensional perspective. As Relativity theory departed from an study of the mental Frames of Reference of human measure, it has always been interpreted only in those terms (and without recognising the analysis is one of measure, hence of 'relative world-perception' NOT of the Universe as an objective whole and considering  $T$  and  $T_0$ , absolute lineal proper time - as if it affected all systems of the Universe not only the form in relative motion - hence absurd paradoxes like those of 'black holes travelling to the past' and time machines to kill your grand-father so often quoted in the*

*work of our 'luminaries' of the science of lineal locomotions, like Mr. Hawking.*

### **The rod of measure of human systems - c speed.**

c speed is a rod of measure Einstein accepted 'by electronic eye-decree' to set all other parameters. So they are all let to vary (as in any differential equation where we do partial derivatives), including energy and mass in this paper. They are variations that are needed keep c-constant. But we could construct an equally sound model of the Universe keeping time-duration constant. The 'of course' here is a tricky rhetoric argument improper of Mr. Einstein, which reminds me of the vastly inferior original paper of Mr. Hawking on the evaporation of black holes (there he uses verbose rhetoric like every two other sentences, dealing with his 'imaginary black holes' at will of his 'imagination').

Einstein is obviously on other league, and prudently he puts this bastard 'of course' on a footnote. But this kind of rhetoric always shows that the author is not 'safe' and 'sure' of his arguments. How could he be? He knows he has never demonstrated but considered c-speed constant as a postulate to build his relative Universe. And it is fine and it works on the galaxy measures from our mind point of view. But he cheats us here a bit, with the of course that contradicts his previous statements kind of shamed for needing a postulate.

After all, most errors in all sciences come from Postulates: the entire building of mathematics is wrong because of the 5th postulate with no proof: a single parallel cross a point. The entire building of economics is false and it is leading the Earth to its collapse because of the wrong postulate of Mr. Smith 'the wealth of nations is its quantity of money', a mere language of information, supported in informative metals (gold, silver, chips of gold in e-money computers) with no value per Sp, whose 'valuation' of life beings is minimal (zero value for life)

and his valuation of metal-weapons, by affinity of substance maximal. So in capitalist societies maximal wealth occurs in periods of global war, as today, when the maximal price of weapons that kill the maximal number of humans rise GDP to stratospheric levels.

OK enough, of this. You see, there are many onion levels in a deeper analysis of reality.

So two of our comments are positive: the universe is simple, logic, temporal and those were important tools on all the work of Einstein.

And one is negative. Mr. Einstein as most humans like to go beyond what is there and then commit errors of sweeping generalization. As physicists do today with big bang theories of the Universe. And they did with the  $c$ -constancy of light. Errors then multiply in an inflationary manner as all information is inflationary, and an entire building of not-quite-right models of reality builds up, as errors seem to sustain each other, into a growing expressionist building of broken angles about to fall, whenever a better architect pushes one of the faulty foundations of the entire architecture.

This is called a paradigm shift, as the part of the building sustained by the faulty foundation falls and the new architect reconstructs only that part, given the historic significance of the 'Corresponding' science, which still holds.

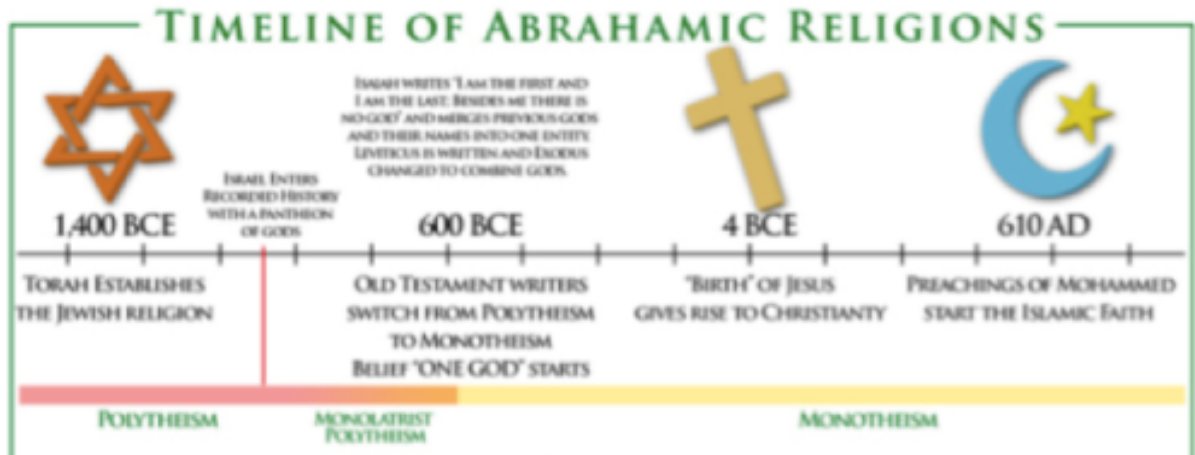
We shall thus start our rebuilding, commenting on the Paradigm shifts of science, according to Thomas Kuhn's work on the nature of scientific revolutions.

Let us then repeat all our previous statements on the relative model of  $c$ -speed with a slower, simpler 'tempo', as this repetitive symphony of a Universe built only with 3 motions of time and its 'still, relative perception' in space, is indeed a



simple world, whose complexity arises from ternary repetitive symmetries.

## From subjective myths and anthropomorphic ego trips into an objective view of the Pantheist Universe.



Knowledge means an expansion of the human point of view from subjectivism to objectivism, from considering man the center of the Universe to realize we are part of a pantheist Universe in which all points of view have their own perspective. In the graph, the pre-scientific age of Abrahamic religions...

The evolution of knowledge consists in increasing the objective point of view of mankind, by going out of the infinitesimal, totally subjective, self-point of view into the infinite multiple points of views of the Universe:

– Hence from the ‘ego’ as center of the universe, proper of the earlier mythic age of primitive Indo-European tribes who thought each ego-individual to be a God (so Germans called themselves the tribe of Goths=gods) and today many self-ish still people believe to be the center of the world and nothing matters except them.

Then we moved into:



– The Semitic age of Abrahamic religions, in which the point of view grew to enclose the tribe as center of the Universe. So the subconscious collective of the tribe became God and the explanation of it all. And all other tribes were deemed inferior, not chosen of God. So the Assyrians called their God and capital Assur, their kings son of Assur and the Jewish called their God Yahweh, which was first a toponym for their land Judea (as written in Egyptian maps) and considered themselves the only chosen of God and called themselves Jewish, a word derived also of Judea. And today many people still believe those tribal ideologies and nothing matters except their tribe. But then we moved into:

– The first age of Mesopotamic, Egyptian and Greek science and global religions (Islam and Christianity) in which the earth, that is all human beings, became the center of the Universe. And so it was understood that the planet Earth was the body of God, and mankind, its collective subconscious the only intelligent being of the Universe.

This age had two versions, as always a new paradigm of wider knowledge on the nature of the Universe is ‘polluted’ by the previous paradigm:

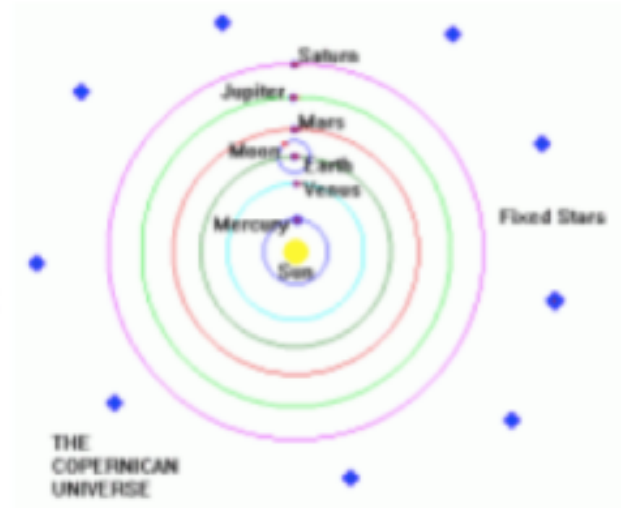
The Jewish-Christian anthropomorphic version and the Greek, objective, logic version.

In the Jewish->Christian->Islamic version superstitions still mix with the understanding of astronomy while the Greek version was void of superstition.

Because superstitions and myths require ‘inquisitions of thought’ that prevent further evolution; the Jewish-Christian version no longer evolved. On the contrary it has its periodic revivals, when as it is today new forms of censorship are established to prevent any criticism of ‘their beliefs’. So today we have political correctness, Jihad Islam, the industry of the

holocaust, religious revivalism and all kind of rhetoric in favor of 'beliefs', including massive amounts of audiovisual emotional myths and money ab=used to expand Abrahamic religions that must be respected... to ensure a growing degradation of our knowledge of the Universe.

**The next stage. Science with cosmic bodies at its center.**



In the next stage Copernicus simplified the Ptolemaic system that had gone too far in his attempt to explain more facts beyond the simple sun-earth-moon relationships for which it was created.

For that reason it would be the Greek version the only one that would evolve further from the first Greek science with the Earth as center into the 2nd Greek and 1st western tradition with the sun as its center.

So from Aristarchus, which Copernicus read and annotated in his manuscript to Galileo, we evolved further our point of view, coming out of Planet Earth and making the sun the relative center of the Universe.

But men were still the only intelligent, worthy being of that

Universe so Kepler wrote 'God has waited 5500 (Biblical years) to find an intelligence like his'. Here the reader should observe how religious anthropomorphic beliefs still crept into this paradigm. And they still are part of modern science. So Newton thought God sent him comets as messages. Einstein said that if his theory was wrong 'God had to correct the Universe, as it was so beautiful' (here you can see Einstein's ego-trips as individual and perhaps as a tribal son of God).

This is important to remember because the 5th Dimension's paradigm has none of it.

And it is important for two reasons:

– On one side those first scientists established a theory of philosophy of science called 'mechanism' according to which the new machines they used to measure time -human clocks – and space – human telescopes became the model of the Universe. This was another form of anthropomorphism. Now human-made machines were God, the seer of time and space (definition of God by Saint Augustine). So Kepler said that 'God was a clocker' and Einstein said that 'time is what a clock measures'.

But mechanism requires an external God to make the mechanism – machines are not self-generated. This Leibniz, the first true predecessor of the 5th dimension, noticed and laughed at Newton. Since when some errors of orbital motion were discovered -as the case of Mercury, Newton said it was Ok and God will repair them. And Leibniz said if God existed the Universe would be made perfect not with errors to correct latter.

While Landau laughed at Einstein's definition of time as what a clock measures. So he said referring to the fact that in quantum physics you cannot measure the position of a particle in time and space with total precision (uncertainty principle)

that he could according to Einstein, since he just measured the position and then looked at his watch.

So the reader should understand that previous egocentric, tribal, mechanist paradigms of man as a superior species are still common in science. The last case is the ideology of anthropomorphism called 'anthropic principle', which the Israeli scholar Mr. Bekenstein has imposed in pseudo-scientific media according to which the Universe has the parameters it has so that man could be created.

It also creeps in places like CERN which worship a machine and expect that black holes, which in the Universe devour planets, stars and galaxies (quasars), will be harmless, for no proved reason except the human belief that we are too important to be erased by a tiny black hole...

– Which leads to the second problem of anthropomorphic beliefs: they do not work in praxis, as they confront the multiple points of view of the Universe each of them king of the hill, provoking constant conflict.

So the reader should not be surprised that the Germans, the most ego-centric people of the ancient world have entered unending wars with neighbors, massacring them and dying till becoming a tiny nation with a dying language.

– Now parallel to the Copernican revolution, there was the Buddhist and Darwinian revolution which made us just part of a web of life and so we were all similar, from the monkey to the worm to the rat to the human and all forms of life were worthy. But of course the previous paradigms kept fighting the new paradigm and so in the American Biblical Belt Darwin is taboo and the very religious merchant of death, Mr. Nobel forbids to give Nobel prizes to evolutionists, as it considers it a non proved theory.

So let us resume this first age of knowledge:

We moved from ego to tribe to mankind and the Earth, to the Sun and life as centers of the Universe with periodic regression and the error of mechanism that worships the machines that measure time and space.

All those phases provoke conflict with other relative points of view, from individuals who are selfish – German paradigm – and kill each other as autistic beings (America, where German influence is enormous), or tribes who kill each other in permanent conflict or mankind at large in permanent conflict with Gaia, the world of life, and now due to CERN's madness with the top predator points of view of the Universe – the black holes for whom really galaxies are made. Since we observe black holes all over the galaxy commanding all their processes.

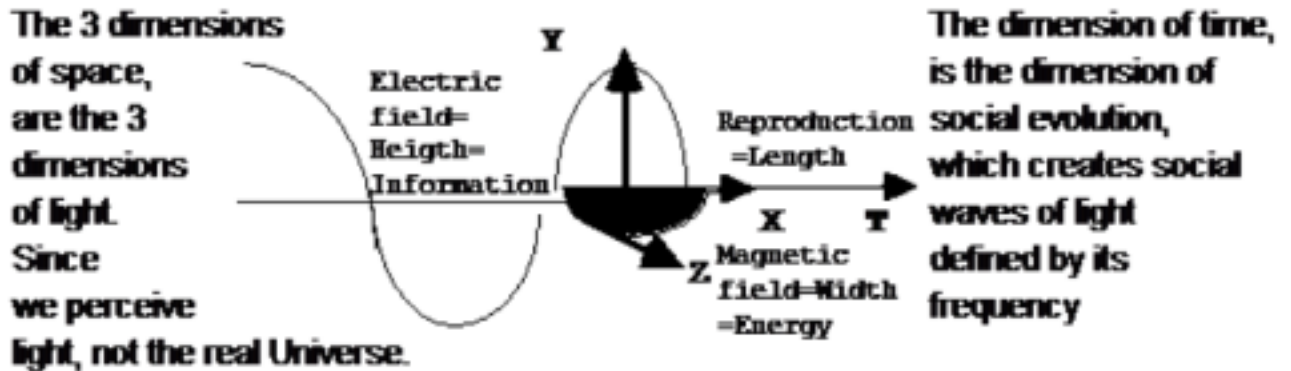
So knowledge is important not only per Sp but because a proper objective knowledge helps our survival as individuals, tribes and species. But all those who hold a subjective, lesser form of knowledge go down from reason to believe and use all kind of emotional myths and painful repressive inquisitions to maintain their truths as sacred. So they never evolve caught in their own web of self-serving lies, because as Nietzsche put it 'the most difficult lies to deny are those we make about ourselves'.

Thus in any CHANGE OF PARADIGM:

- The point of view moves away from humans to enclose a wider part of the Universe. Thus, humans become ever more smaller as objective scientific knowledge advances... but
- Paradoxically the less important we feel and the more objective we are about our relative position in time and space, the better chances we have to survive, as we collaborate among humans with the power of social evolution, we respect the

action-reaction processes of the Universe and all their points of view, not ab=using nature and other human beings, and so the paradox is that the less ego we have the better off we are.

### **3rd age: Space-time membranes as the center: Einstein's 4th dimensional paradigm.**



Now to understand the next paradigm that precedes the new paradigm of the 5<sup>th</sup> dimension we must understand Einstein's work with a critical view as we have done with all other points of view, being aware though that modern science believes in Einstein with the same zeal that they believed in Galileo, Copernicus, Yahweh and the tribe of the Goths before him.

And so as many religious or tribal people of German, Jewish, Christian or Muslim denominations will have already emotionally abandoned this page, many scientists will not even consider the 5th paradigm. Believers don't reason. They don't have patience. Their hypothalamus as science proves jumps out attention and memory when it enters in conflict with beliefs.

Still of course there are people who reason and so now we ask you to concentrate because here is where new knowledge must come first for you to understand a critical view of modern physics and their myths and beliefs.

Consider all what we have said. Basically we are moving our

point of view from smaller to wider points of view, but when we have a point of view, that point of view is still, quiet, fixed in a center. And this relative 'fixed' point of view is important to understand Einstein's theory.

**Minds are still: Information can only be obtained with a fixed point of view.**

Why we need a fixed point of view? Easy, because to measure and perceive we need to focus and be still to observe details. If you take a picture of a fast moving object is blurry. If you try to perceive the details of a fast moving object you will not be able to do it. This happens because knowledge gathers information and in-form-ation is 'form'. But form is the opposite of motion. In the Universe all what you see around is form with motions.

This is very important to grasp. Look around. What you perceive is only 2 things often combined: Forms of information and energy motions. And actions of beings that combine motion and form.

And both things have opposite properties. The less motion the more form you observe, the higher motion the less form you observe. But knowledge is form, information. So to create knowledge you must depart from a relative, fixed point of view.

And so that is why you do not see the Earth moving but fixed. This is how nature has given you a capacity to observe with your mind reality as still, with form.

You need a pov to create a certain scientific truth. But the larger the p.o.v. the bigger the truth. So the center has moved but each new age of science have kept a relative still point of view. You must create a still center to measure, because perception happens in stillness, as opposed to energy, which expresses itself with motion. Information focuses form and it must be still as Buddha was in the tree of knowledge.

So when Galileo came the earth moved and the new still p.o.v.  
Was the sun.

And when Darwin came the idea that man had not evolved,  
changed but had always been still, the same form created by  
God per in secula seculorum moved and now the new 'still  
p.o.v.' of biology where the immutable laws of evolution.

Now this allows you to understand the limits of Einstein's  
paradigm. Since what Einstein did is to create a new still point  
of view that could not be changed. It was no longer the Earth, it  
was not the sun. It was not even man or evolution. What was  
the new still point of view from where Einstein would take his  
rods of measure?

**LIGHT!**

Einstein defined a Universe with a new point of view, the speed  
of light, which would remain constant from any perspective.

But why light?

Light seems an esoteric center. What makes light so essential  
to our view of the Universe, as to permit 'measures' that seem  
to be more accurate to our mind?

We must now give you the first upgrade on Einstein's work by  
affirming that light IS the substance of the space we perceive  
with our eyes. And that is why from the perspective of our  
mind, which is what you are truly observing – not the full  
Universe and its exact objective measures, but the peculiar rod  
of your eyes and any other electronic mechanical device that  
absorbs light – light IS space.

Indeed, you do not see reality in its totality, but light and so  
what you call space is light-space. And when you use an  
instrument, made to the image and likeness of our mind, you



see light-space too.

But if you were a dog smelling the Universe, your mind mapping and distances would be different.

We are though an I=eye and for that reason our mathematical mind and light-space has 3 Euclidean perpendicular dimensions (the so called electric, magnetic and ray directions of light, which are perpendicular), which are the same dimensions of your perceived space.

Thus, what really Einstein did was to consider a larger point of view that the sun, the entire space of the Universe.

The center now had moved to every point of the Universe, and this allowed Einstein to say that all motions and points of view were relative, only space-light was a fixed background that didn't change.

But he still established as a rod of measure of the other variable, time, the human clock; and so here, there were no advances on the objectivity of the point of view. 'Time is what a clock measures' he said.

Einstein did NOT change the point of view of the human clock, reason why Landau laughed at him saying that with his system he just had to 'look at his watch to eliminate the uncertainty of time' .

And so it IS in his understanding of time, where Einstein as most physicists before, had failed to expand the point of view. And it is where the 5th dimension will open up our objective view of the Universe, by defining in a more complex manner the meaning of time clock and consider the existence of many of them in the Universe.

IN essence, what we want now to consider is the isomorphism

between the 2 main time clocks of the Universe, according to the relative scales of the 5th dimension: the time clocks of the quantum scales, 'charges', and the time clocks of the cosmological scales 'masses'.

Between them, of course there is a 3rd type of time clocks 'thermodynamic molecules', whose temperature define the variations of speed of those time clocks, but being the thermodynamic  $\Delta_0$  scale, the human scale, we do have a lot of information about those time clocks, so physicists are sophisticated enough to understand them. They do NOT understand however masses and charges, reason why they have been for 100 years trying to unify them the wrong way - without understanding they are TIME CLOCKS of different scales, of different 'curvature' and speed, and so they need the metric of the 5th dimension to unify their parameters.

So simple and so mysterious for a century because we lacked the proper 'heliocentric' perspective - an essential dimension of reality. Then once we enter into that larger reality (which physical systems do but humans obviously can't), we are in...

Now it is obvious that as we grow in size we curve from our perspective reality and so we get less information as things slow down and part of the information disappears from our perspective, and vice versa, as we look downwards the universe become hyperbolic and grows in detail of information and so we get different entropies up and down. This is shown in the symbol of the 5<sup>th</sup> dimension,  $\Delta$ , which as you can see have two motions up and down one thinner and the other thicker, and this asymmetry is important to explain many things – genetic for example, going upwards perfect in information, body motions for example perfectly going downwards when the whole wants to move. Wholes are very good with motions smallish things with information. Haven't you notice how energetic and powerful are big guys, how smart are small ones? (-;

## **THE INFORMATIVE QUANTA - H-PLANCKTONS.**

Now we explained that the perception of a universe as euclidean or elliptic or hyperbolic depended on the long overdue respect we must give to the a priori parameter of all worlds:  $r^2/L^2 = Tf/Sp$ . When this parameter tends to zero, we have an Euclidean geometry, above zero we have hyperbolic and below zero we have elliptic.

The parameter which defines the mathematics in which we live is so essential that it will come constantly. For example, we can consider that systems exist at one side of the parameter, at the side of  $c$  speed as a limit - in our euclidean world - or over  $c$  speed (in the elliptic gravitational world) at the side of  $T=0k$  as the limit of the thermodynamic plane, etc.

So we need now to complete the definition of our world, to deal with the nature of our square 'radius' parameter of information. What is the minimal quanta of information of our electronic eyes, that feed on  $h$ -quanta of light energy, well, we just said it, the  $h$ -quanta which measures in the minimal amount known, the spin of a particle, which is rather obviously the minimal unit of its angular momentum, of its informative perception.

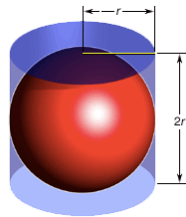
And for that reason as  $h/c$  is truly a minimal amount our relative  $0$ , we live in that Euclidean world.

The first and most important of T.Æ's 5 actions of all systems that want to survive, is 'perception of information' How do particles perceive?

Of all those levels and actions the one physicists understand worst and less is the action of informative perception of smaller particles, called SPIN, which is the absolute minimal unit of reality we measure after deforming it fully (quantum uncertainty), a quantity called angular momentum,  $h/4 \pi$ ,

which is as a ‘form of information’, ‘space-form’ NOT motion.

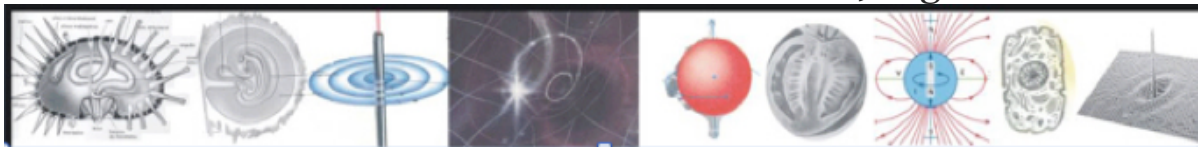
And since  $h$  is in the above equation,  $E=fh$ , a whole, hence a sphere (whatever it has inside), the ‘essential topology of all wholes’ by definition enclosed disks-sphere (in  $\neg \mathcal{A}E$  topology a disk is a 1-sphere, a sphere, a 2-sphere, a sphere in motion a 3-sphere, which as motion is a dimension seen in motion, can be of different varieties, etc.), a spin is ‘logically’ is a n-sphere



divided by  $4\pi$ :

Now the graph gives us possible choices, as we depart from a ‘whole’ of a light beam, which could be a cylindrical cut, as in some lineal worms, or a ball. As  $4\pi$  comes in the ball, we have 2 choices or the surface of the ball, or the solid sphere but NOT all, only a section, called a ‘solid angle’. This gives us a first duality between ‘human measure’ and ‘true property’. The true property is the solid angle from the surface to the center,  $r^3/3$ , the human measure is the external surface,  $r^2/2$ .

As all space-time organisms have truly 2 components, the ‘internal’ open ball topology (meaning the ball without the surface membrane and the center of the point) or ‘present-evident, wave-like ST form’, and then the membrane and o-point in the center, or  $Sp \times Tf$ , ‘past x Future’ particle (limbs-external sensorial membrane and central mind) together:

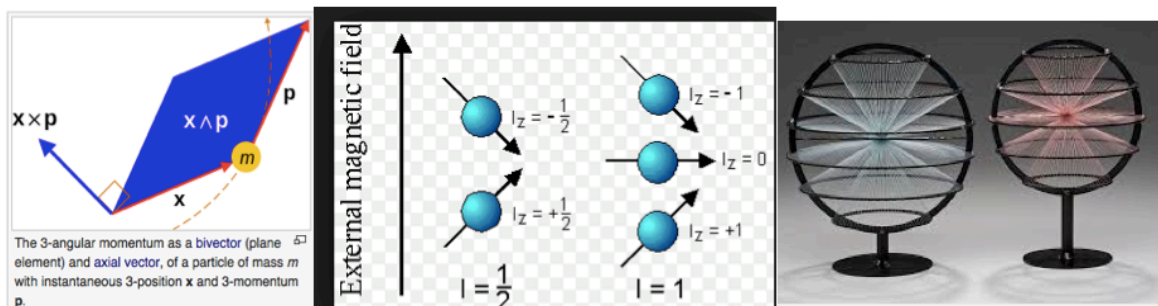


Why we know spin is a solid angle of information? Because if it were a motion, as Pauli, the guy who is credited with its discovery, put it to his real discoverer, as speed it will be 137 times faster than light!:  $hc^2/e^2=137$  (inverse fine constant). This

in 5D physics is NOT a problem, c-speed is Einstein's postulate to adapt the Universe to the human perception of it – our rod of measure, as electronic minds. But here Pauli does have a point. A Spin does NOT rotate, as you do NOT rotate when looking outside, but is a 'wedge' into the sphere, through which information enters.

We see the surface of it and so it seems a momentum, the being sees the solid angle of it and so it is an intensity. Because the being is down there into the zero-point soul of the particle, mind of mathematical perception, it does open and close the sphere to 'look' through the windows of the membrane. In the simplest form, it is a pi cycle of 1-sphere, which is made of 3 closing diameters, which leave  $\pi=3$ , 0.14 d apertures, or  $0.14/\pi=5\%$  of light and 95% of dark matter/energy, the proportions light space-time beings DO NOT see of the Universe.

So now in the 'dialectic' Socratic method (remember my culture) I use to find things, I deny myself. What if I consider NOT a solid angle, BUT a spin, which IS a slice 'SEEN' through the 1/3rd 'D' apertures between the diameters of the pi-1-sphere (cycle) or the 'cuts on the 2-sphere'. We realize this 'will be a slice' with the exact parameters of angular momentum, and there will be 3 holes, hence only 3 spin angles, and they will be further on quantized – jumping from part of part of the whole:



*In the graph the proper description of Angular Momentum as*

*a plane of Information, the minimal unit of perception of our Universe, proper of Relativity is more clear than the classic dynamic Time description as  $r \times mv$  - both have their different uses/perspectives.  $H$  is the rod of informative measure of the Human electronic eye-mind, so small compared to  $c$ , the human rod measure of light space that the constant of geometry,  $r^2/L^2$  of Lobachevsky's pan geometry becomes close to zero, creating our perceived Euclidean space, deformed to a hyperbolic geometry for smaller beings (Special Relativity, quantum physics) and to an elliptic geometry for larger gravitational scales (General Relativity)*

Now, this is the modern 'Hilbertian-Einsteinian' description of angular momentum, just what we said it is,  $P$ , is the 'cut' on the  $n$ -sphere,  $x$  the radius, equivalent to  $P$  in 'distance-motion', and its product an amount  $mr\omega$  which is the spin. You can think of it as an information bit or an energy bite (space or moving perception) of the being.

Now those are the spins, quantized, and you can see there are 2 or 3 'cuts' to perceive, with different orientations, and DO NOT come in bigger numbers. The maximal thing is this work of art, called 'female and male spins'.

We won't enter on this (-; just to mention the bidimensional nature of those spins (left graph) in the left side, which ARE the quanta of all information humans, electronic eye-beings, perceive about the world. And the obvious capacity to process and orientate they give as the 'eyes' of the atom, to each particle.

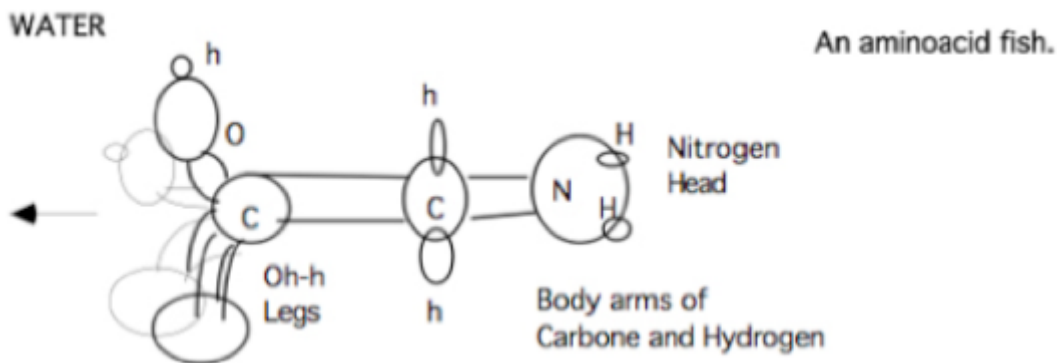
Moreover, they get ordered, orientated by the external magnetic field, the larger time-enclosure that orders from  $\Delta$ , the  $\Delta-1$  quantum field. Now ask a physicist what is a spin, he will put a lot of formulae of abstract maths, which it will take you half a year to memorize, without understanding. Why? The idea that particles perceive is out of the 'picture'.

Now the magnetic field, they like, as all heads turn to her the speaker in human groups, all atoms spin in tune, and we use it to control them, as speakers use the word nation and god. Same law of mass-control. I call it lanwave. A Wave ordered by a language of energy and information they speak. The magnetic field is the language of space that transcends atomic parts into the next scale; forming them; the electric field is the time force that put them in motion. That is how we transcend from quantum to our scale. The best at the job of 'feeling' magnetic lanwaves is the iron, and it becomes the top guy of the next scale. It forms perfect organized masses.

Once we are here, those motions are 'activated' by temperature, vibrational clocks of our molecules.

Temperature is the 'electric field' that moves us in the  $\Delta$ -scale. What is the 'spin' for Molecules?. They use van der waals forces and 'angles', giving by slave atoms.

And the boss of those perceptive ones in our body is the nitrogen. It has 3 H systems to perceive:



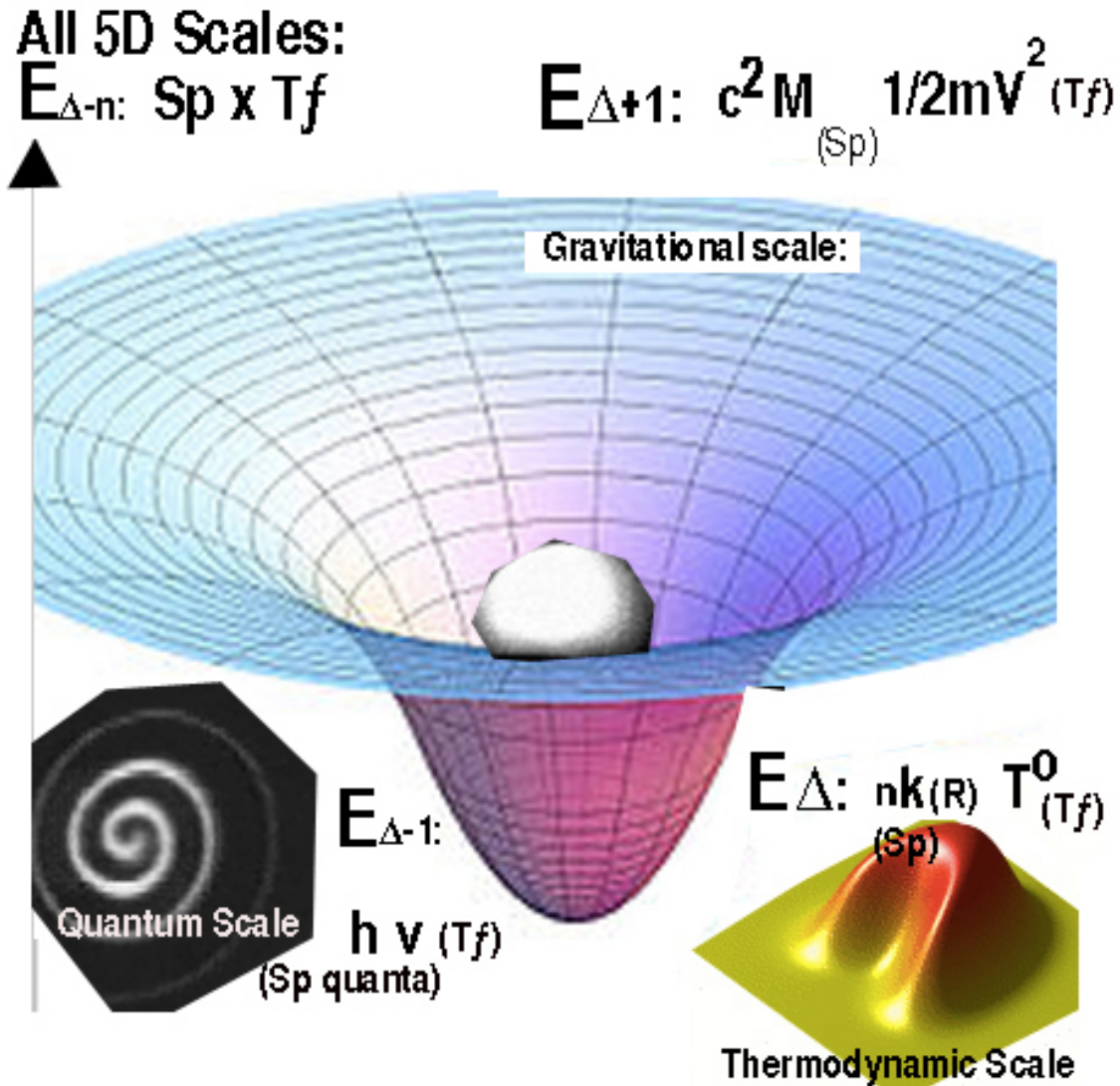
Here you have an amino acid working his life around, with its oxygen legs kicking in and out water, its carbon body with lateral arms of many kinds and its nitrogen head.

*You are made of a lot of those.*



## IV. 5TH DIMENSION: PHYSICAL SCALES

The time clocks of the 3 scales of physical systems



We will extend a little more in the understanding of physical systems and its generator equations, and scales of the 5th dimension of which 3 are paramount (susceptible to be analysed by the ternary fractal principle of i-logic Non-AE algebra in ternary sub scales): the quantum scale with its frequency clocks, and h-constants of space, the thermodynamic scale with its temperature clocks and entropy



k-constants of space, and the gravitational scale with its speed clocks and its mass-densities of space.

A key element to T.Æ, a Theory of Everything Organic, is to translate all the abstract jargons to its interdisciplinary language. As the physical sciences are considered 'wrongly' on top, we will deal extensively with their concepts (they are merely the sciences who study the limiting scales, further away from man, and only with mathematical languages, hence loosing its organic properties and with the most deformed of all time concepts, as a mere 'locomotion' or translation in lineal space – hence loosing all understanding of its form, its information, the dimension of time they 'deny' to the point they call it negantropy (the negation of entropy) – so we share the view of Eddington and Einstein that 'physicists' invent much of its 'entelechy' entities).

Still the species they study are overwhelmingly the majority of reality so we do have to deal extensively with them. And the fundamental concept they use to express all the 'formal motions' of those species; that is the combination of all the cyclical motions or 'angular momentums' of each scale of the 5<sup>th</sup> dimension and all its 'entropic spatial intervals' or constants of space action or 'lineal momentums' is ENERGY.

In normal parlance energy is closer to the concept of expansive lineal motion – our capacity to move. In physics though there is a clear equation that relates Energy and Work. So Energy is the capacity to move with certain 'directionality' or form. Or alternately the capacity to move 'forms'. And it is a very integrative concept both in time and space. So for example, in our human scale, Energy is the sum of the Internal Energy made mostly of cyclical motions (U) that give the form to the being and the External motion or kinetic energy (ke). So it is the closest concept to what we call a 'plane of the 5<sup>th</sup> dimension', which measures all the formal motions of a 'closed system', 'superorganism', or relative Universe.

And for that reason we DO have a close similarity between the Metrics of a given plane of the 5<sup>th</sup> dimension:

$\Delta = Sp \times Tf$  and the equations of energy of each Plane of the Universe:

$\Delta : Sp \times Tf \approx \text{Energy} : \text{Constant of Space-action} \times \text{Frequency}$

What is energy then remains the fundamental first question of physical science 5D cosmology must clarify. It is not possible to clearly define energy in physics with a single formula, which becomes the first surprise of a seemingly 'exact' science. But we do have 3 equations for it, in the 3 scales of relative size of the Universe, which we shall call,  $\Delta-1$ : quantum scale,  $\Delta$ -Thermodynamic scale and  $\Delta+1$ : gravitational scale:

**$\Delta-1: E = h \nu$ ;  $\Delta: E = kT$ ;  $\Delta+1: E = c^2 M$**

They are the Clocks of Time and quanta of space that put together create the 3  $\Delta_{\pm 1}$  planes of physical systems that interact with the human being. Latter we shall study those 3 'big planes of space-time' and its clocks, its space constants and its Energies and formulae in more detail.

To stress that all systems are in a fractal Universe susceptible to study in ternary sub-systems, ternary functions, etc. This we repeat ad nausea because humans tend to understand reality in a single one-dimensional way and the 'manners of the brain' are the more difficult to break. You must then always deal with the transformative duality (systems constantly beat between space and time states, entropy and information, motion and form) and so sometimes T. $\infty$  will seem confusing as the rule A is NOT B is often broken (with time A-entropy becomes B information). So the true law of science is:

Energy never dies, it transforms its entropy into information back and forth ad eternal.

## **SPACE QUANTA AND TIME FREQUENCIES IN PHYSICAL SCALES: $S_p \times T_f = E\Delta$**

We understand those equations to have 3 elements:

$E_i$ : Energy, which carries on one side a frequency of form, a time clock or frequency or density of information and on the other side a lineal motion an 'kinetic energy', expansive entropy (the concept of entropy hence is quite different from the one of science, but it will make sense, for example, in the previous equation, of the thermodynamic scale,  $E = nKT$ ,  $K$  the Boltzmann constant of entropy multiplies by temperature the clock of time that defines the speed of actions in our life scale).

Those are the 3 elements we shall see constantly, ply with it reveal them in its infinite 'transformations', because the inversion of both but their coming together into different shapes of motion and form is truly all what is about. In physics all is about  $E = M c^2$ , where Mass is a cyclical time vortex of gravitation, which attracts the faster it turns;  $E$  is the energy it stores and  $c^2$  is a plane of expansive light-space, the entropy factor.

And so a third element, which we can call generically 'Energy', philosophically 'formal motions', geometrically a plane of the 5<sup>th</sup> dimension and mathematically:

$E = S \times T$  or  $ST$ , which combines the lineal and cyclical formal motions of Space,  $S_p$ , and Time,  $T_f$ , completes the physical description of a given  $\Delta$ -scale.

Now, while Energy stays humans deform its perceptions of time and space parameters, reason why the constants and clocks of space and time are different when we introduce the multiple deformations the human observer introduce in all those scales.

And we will account for them when studying the generator equation of each scale in which ‘the quantifiers, or time frequencies’ vary; the Sp-quanta, or Spatial entropic motion steps of each scale also vary, and ‘thanks God!’ or else we could have difficulties doing any objective assessment of reality, there is a conservation of the whole Plane formal motion, expressed in the conservation of the whole formal motions (energy conservation) its relative cyclical motions (angular momentums and similar variables, such as spin) and the relative lineal motions (lineal momentum and similar variables of each scale).

So generally speaking we can identify in each scale the relevant parameters by finding an equation of Energy for each scale whereas there will be basically 2 or at most 3 terms depending on human detail of analysis whereas, it will be then easy to define what is the space quanta, the time frequency element, in how many dimensions we humans observe them, what we humans extract from them, and how then we mathematize those scales.

And finally study how those scales interact in the ‘regions of emergence and dissolution’ of parameters, from one scale to the other – the most interesting regions of the Universe. To that aim, we can always use the isomorphic method, by comparing phenomena on different scales. So for example, we shall consider the case of a fluid regime that stops its speed growth when it creates vortices,  $T_f$ , on its laminar wave flow and compare it with the c-barrier or limit speed that stops growing when a mass starts to form faster mass vortices (heavier quarks). And this will allow to define ‘speed’ as the ‘temperature’ of the gravitational scale.

### **Organic vs. abstract interpretations.**

As we shall repeat once and again 'the Universe is simple, organic and not malicious'.

So for example:

- The collapse of a wave into a particle, is exactly the same process that collapses a school of fishes when a huge predator comes, but this implies to accept that particles do gauge information and do follow a survival program, and do evolve socially. And anthropomorphic humans never will accept this. So we do have all kind of absurd Copenhagen interpretations of the particle-wave duality.

- The Compton wavelength of a particle is equivalent to the wavelength of a photon whose energy is the same as the rest-mass energy of the particle.

The standard Compton wavelength,  $\lambda$ , of a particle is given by:

$$\lambda = h/mc$$

where  $h$  is the Planck constant,  $m$  is the particle's rest mass, and  $c$  is the speed of light. So we can define the existential nature of the particle (its mass and wave-length or  $Tf < ST$  function) with the Compton wavelength, but this matters not to physicists. What matters to them is this:

The Compton wavelength expresses a fundamental limitation on measuring the position of a particle, taking into account quantum mechanics and special relativity.

This limitation depends on the rest mass  $m$  of the particle. To see how, note that we can measure the position of a particle by bouncing light off it – but measuring the position accurately requires light of short wavelength. Since for photons of frequency  $f$ , energy is given by:

$$E = hf = hc/\lambda = mc^2$$

And Light with a short wavelength consists of photons of high

energy. Thus playing with both similar formulae if the energy of these photons exceeds  $mc^2$ , when one hits the particle whose position is being measured the collision may yield enough energy to create a new particle of the same type:  $1 \times mc$ . This renders moot the question of the original particle's location: which one?

What matters to  $E=SC^3$  is that when you give enough energy to a particle, as when a living mother feeds enough, you have an offspring of new particles, children, hence the particle REPRODUCES! IT does follow one of the living action  $\Delta\epsilon$  of the program of the Universe.

The physicist or human doesn't care for that. The philosopher DOES.

Now we have given you two clear examples of organicism:

- An entity, which is ORGANIC, made of connected parts, NOT a single dimensional being, and a being that is reproductive, as survives.

## **THE GENERATOR EQUATION THROUGH THE PHYSICAL SCALES OF THE 5<sup>TH</sup> DIMENSION**

### **ASTRÆ-PHYSICS. THE GENERATOR**

#### **The 3 forms of space and the 3 motions of time.**

So we can write a general equation, which is another 'point of view' on the ternary symmetry of the Universe, this time in terms of physical states of matter, for the 'smallest quantum world' and the 'larger' thermodynamic world of matter:

Sp (gas, field spatial decelerating state) < ST (wave-liquid

steady space-time) > Tf (Particle-Solid, accelerated state).

And yet, most people will consider that a gas moves faster than a particle. Yes, indeed, externally, but we are talking here of the internal world of the particle, its vortex, its 'hurricane' of forces that creates it. Because the mind 'fixes cyclical vortices' of forces, masses and charges into a 'form'. So we seem solid a very fast turning wheel, but it is made of turning spooks.

So the ambivalences of reality ARE ambivalences between the mind perception of form and the moving realities behind them. All the pictures we have of masses and charges so vortices of accelerated motion, and this was expressed by Einstein in his ill-understood Principle of equivalence between gravitational forces and masses and accelerated motions. Soon of course physicists who have this astounding capacity to define correctly with mathematical equations reality and then misunderstand it conceptually forgot what Einstein said and got back to their 'lineal particle' mantra as the cause of mass (but of course will not with the exception of Einstein, inspired by Mach, always fond of philosophy, 'ask', us philosophers of science.)

So there is here a contradiction: a time vortex because occupies little space, when not seen in detail seems a fixed form. Yet it is faster and its function, because it is faster is to enclose and tighten as a membrane the vital space of lineal entropic motions that want to escape, 'collaborating' with the o-point mind at the center.

And this is the organic structure between the faster membrane and the central point of view that are in fact the 'same being', exploiting the entropic motions of its environment or territory. A shepherd does have a shepherd dog, which constantly moves faster than the sheep, the vital space they enclose. The dog is the time cycle, surrounding the vital sheep entropic energy, which the shepherd directs.

## **The generator equation and its 'expressions' of time travels.**

So we can deduce easily from the Generator Equation the equation of the life ages, or 'world cycle', the fundamental cycle of the Universe, the alpha and Omega:

- $\alpha-1$  (conception)  $L$  Max.  $Sp$  (energy, young age)  $> Sp=Tf$  (Adulthood-reproductive age)  $> Max. Tf$  (old, informative 3rd age)  $\ll i-2$  (death)

The equation is another fundamental symmetry, from where an enormous number of facts of reality can be deduced.

A brief list of those 'symmetries' for physical, biological and social systems, starting by the Human world, which should be the center of any unification theory, based in the organic structure of the Universe, as man is the most perfect and better observed organism, and scales are all isomorphic so their size or location does not matter as physicists who pretend that the largest or smallest scales matter more than the human one, make us believe – on the contrary as their observation is scanty by reason of distance in time and space, they are plagued with interpretative errors.

### **5D Cosmology. The fractal Generator: $Sp \approx Tf$**

Perhaps the most extensive field of  $T.\alpha$  is astrophysics – the study of the scales of matter. It is in fact the one I have researched more after the superorganism of history, despite or perhaps because they are not the self-evident biological planes of existence, where  $T.\alpha$  fits directly like a glove to an entangled hand, Einstein permitted (-;

We want to bring in this introduction only one theme, with many branches, the fractal scalar nature of physical space, along planes of the fifth dimension and once we generate its equation deduce from it the Unification equation of charges



and masses, the Saint Grail of mathematical physics, searched for a century with no results (as they are time vortices of 2 different, limiting scales of the Universe) and then the big-bang cosmology and finally the question of the wave-particle conundrum of quantum physics and the meaning of Universal constants. They are the 4 most researched themes of physics, and that is the reason why we shall do a fast survey of 5D improvements on them.

Let us consider it briefly before describing biological systems with the same Generator equation of 5D fractal space-times.

### **The particle state: masses and charges: vortices of time: clocks of information. Tœs.**

This gives origin in physics to certain modes of ‘future’ cyclical time vortices, spin numbers, photons, strong quarks, electrons, charges, magnetic moments, thermodynamic molecules, masses, angular momentums, cosmic bodies, solar systems, ud stars, strange stars and top black holes, galaxies and Great Attractors, which are the ‘ $Tf$ ’ elements of all those scales and subscales, between the minimal observed form, a fermion spin and the maximal one, the Great Attractor region of the Local Universe.

They are all sub-vortices of the 4 fundamental Planes of the Universe, where the 4<sup>th</sup> is only partially perceived (the cosmic scale outside galaxies of ‘neutrino strings’ ‘Higgs bosons’, dark energy and dark matter), but we do have more vortices than the 3 perceived ones, the electromagnetic, thermodynamic and gravitational scales, as we must apply the ternary principle and break each of the 3 fundamental scales in 3 sub-scales).

So Einstein, used those non-Euclidean geometries that make lines part of a bigger time cycle to study the curved masses of

the Universe. And he said 'time curves (lineal) space into (cyclical) masses', which he defined with the Principle of Equivalence between acceleration and gravitational mass.

Thus as time curved space into masses, it accelerated gravitation into cyclical vortices. And gravitational, lineal forces became masses the simplest clocks of the Universe; whose attractive 'mass-power', was proportional to the frequency of its cycles:  $M = k f$ .

*This duality of mass vortices and expansive entropy, which already Descartes foresaw, when he affirmed that all what existed were res extensa (space) and vortices of time (masses, charges, galaxies) is the ultimate meaning of the dual equation  $E \Leftrightarrow Mc^2$ :*

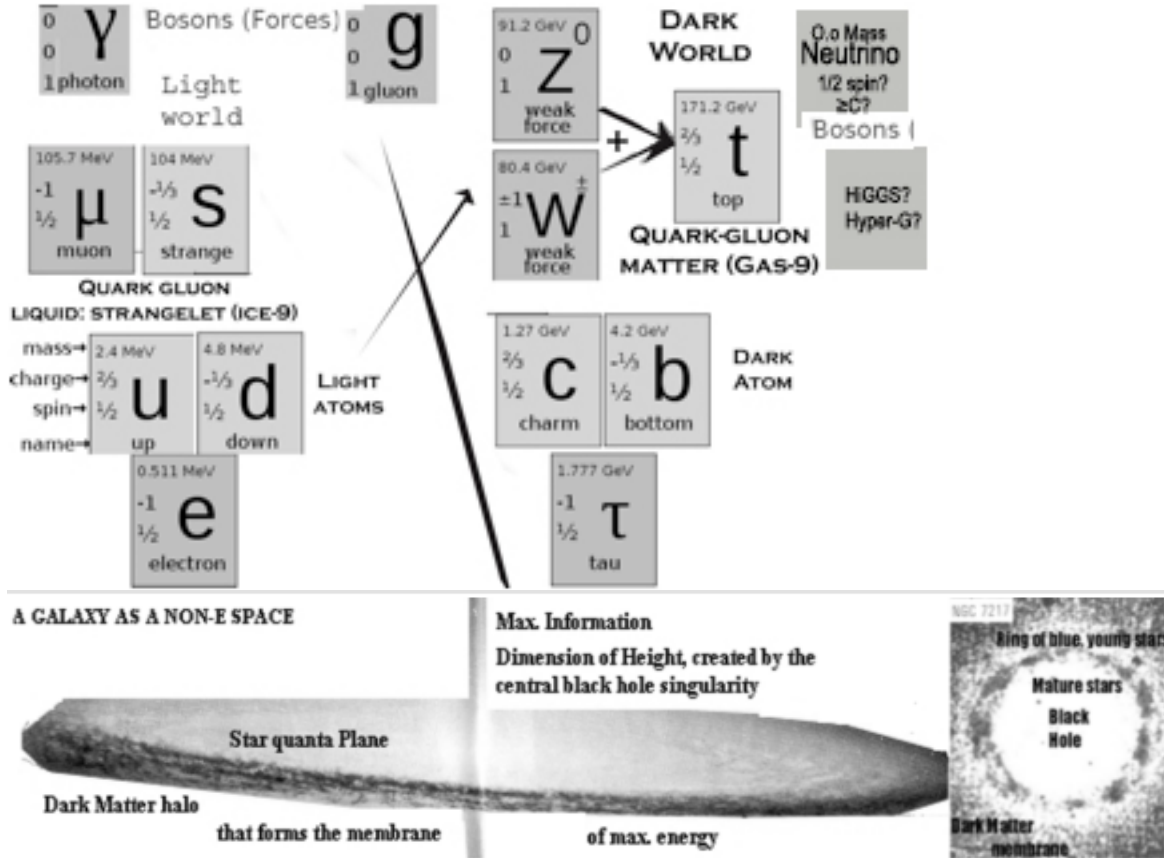
### **Some case examples of astrophysics.**

Each science of mankind, which corresponds to an  $\Delta$ -scale of the 5th dimension is fully renewed and enlightened by the new formalism of its Generator Equation and its analysis of all systems as super-organisms in space, systems that evolve in time, and 5D structures that co-exist across symmetries scales of the 5th dimension. Let us consider for example the case of galaxies, with 3 introductory notes on:

- The spatial structure of the galactic super organism.
- The unification equation of masses and charges as symmetric time vortices of the quantum and galactic scale.
- The 'death-birth' cycles of big-bangs and big-crunches of masses, which express the limiting end of the world cycle of physical systems, perfectly described by Einstein's  $E \Leftrightarrow Mc^2$  dual equation.

# The Three Non-Euclidean Regions of the Galaxy:

$Sp (Halo) < ST: stars > Tf: black hole.$



*In the graph, Galaxies are fractals of stars and dark, quark matter built with 3 topologies: a reproductive body of stars, sandwiched between an informative nucleus of black holes and an external halo of dark matter, probably strangelets and other dense stars. The closest self-similarity in our world scale is a cell and in the quantum scale an atom.*

Since the fundamental 5D symmetry of galaxies is between the particles and families of matter of the Universe (Graph below) and the parts and symmetries in space of the galaxy. This is the logic of 'Simplicity and Correspondence and Scientific Evidence' underlying all disciplines of Science, which physicists have forgotten. Science as Einstein put it, is only concerned with the facts and events known and experimentally

proved.

So we must construct the universe, with the particles we know in the  $\Delta-1$  scale,  $\Delta$  and  $\Delta+1$ , particle, cosmic bodies and galactic scales. It is then clear the 'nature of galaxies' as organic systems, of enormous size, which stretch according to the metrics of the 5th dimension the 3 co-existing planes of:

- III families of mass of increasing weight and density, the ud-atoms of light matter, the sc atoms of middle density, or strange matter, and the bt atoms of hyper dense matter that correspond to:
- III families of cosmic bodies, the ud-light stars of our matter, the strange stars of pulsars and the black hole stars of maximal density, which correspond to
- The III regions of different density of the 'galactic cell', the intermediate region of light stars, the mitochondria of the galaxy that reproduces and becomes on the long term, the generators of black holes (stars converted through nova processes), which migrate and form the 'DNA-gravitational nucleus of stars' and generate the strangelet, densely halo of quark matter around the galaxy, creating yet another ternary symmetric 5D space-time structure.

The ternary generator equation for all systems of the Universe, which written in terms of topological geometries is:

| -Toroid limbs/fields >  $\emptyset$ -Hyperbolic body/waves < O-  
Informative particles-heads

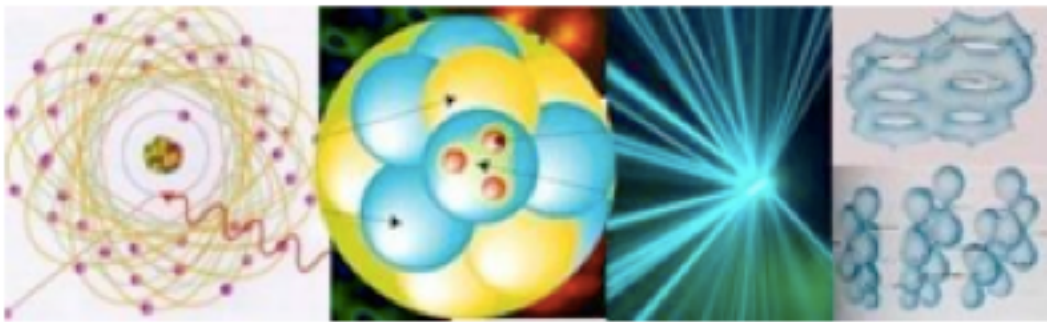
This simple topological equation defines how the 3 parts of all beings are constructed. And remember if you are a mathematical physicists that the universe has no more topological forms than those 3.

So all what exists will be a 'diffeomorphic'=local assembly of those 3 topological parts. And you just need to fill the names of that geometrical template. An atom will have a O-nucleus, an

| -electrons and a  $\emptyset$ -hyperbolic body-wave of neutrino, gravitational and  $\Upsilon$ -electromagnetic waves between them.

Indeed a galaxy will have a central, informative black hole, made of the densest III family of positive top quarks, a halo-membrane of negative strangelet quarks, the II family of mass and an intermediate, vital 'mitochondria' space of reproductive stars and planets, its body-wave, forming together an spiral organism, which we shall easily show respond to the same mathematical equations derived of the Fractal Generator:

*A galaxy and its ternary symmetries between the 3 families of quarks and its 3 regions, is similar to an atom, which displays the 3 same symmetries, with a central quark system of maximal density and positive charge, an external, negative electronic membrane and an intermediate region populated by photonic 'stars'. We shall unify both systems with the same equations of the 5th dimension that orders all the scales of all beings, according to the symmetries of the 5th dimension.*



And to a molecule, which also display the same symmetries in the thermodynamic scale. So we will write with 'only those 3 topologies of the Universe' all the systems of the Universe.

This is what the Universe is all about, and the only difference is the jargon each science uses to describe it. Do NOT think that because physicists speak mathematics, biology, genetics and evolution, societies religion and politics, economists money, they ARE describing different things.

The perception in synchronous space of the 3 elements describes a super organism. Its perception in diachronic time, describes a system through its 3 ages of young-entropic maximal lineal motions, iterative, adult age and informative 3rd age of maximal form, dominated by each on those topologies. And you too are one of such systems. The most perfect in as much as it is the better known which should be the model of all of them. Since as Eddington insisted, physicists invent due to the quantum paradox of uncertainty many of its concepts, as they are so big that they modify the observable or do not see it (dark energy, matter).

And inversely in the anti-quantum paradox of knowledge social scientists are so small compared to the observable, the social power, banker, or military-politico that he yields to power and does not try to build a better world.

So only in the middle biological sciences are not subject to the quantum or Antiquantum paradoxes of uncertainty. In this Eddington was right: man is the measure of all things because it is the thing we better measure.

And so the organic Universe must be compared to our nature, and define the 'Galacell' in those synthetic terms as a superorganism of uds, and the frozen stars, and then all is simple and evident and far more beautiful than the mathematical description of it alone would convey.

Now it is clear the difference between 5D astrophysics and the present state of 'fanta-physics', in which all can happen, all particles that are a mere mathematical equation must be searched for, as there are no rules, no understanding of the space-time symmetries of the Universe, and its life-death arrows. Physicists ARE STILL ASKING, why there are antiparticles (the arrow of death of particles), why there are 3 families of mass (the ternary symmetry of 5D scales of particles), what is dark matter in the halo (the strange quark

symmetry between particles and parts of the galaxy).

They do not have the slightest idea of why the universe is like it is, and so all 'goes', all can be searched for, including unfortunately nuclear experiments with strange quark matter and top stars (black holes) that can blow up the planet and accelerate its future purpose on the  $\Delta+1$  scale - to feed as mitochondria do on a cell, the reproduction of the heavier strange and top quark matter that rules through black holes and strange neutron stars the galaxy.

Let us now consider the ternary topology of the equivalent 'entity' to the atom in the gravitational membrane – the galaxy.

A galaxy is a curved, fractal space-time of huge spatial proportions, hence minimal form (inversion of properties between spatial Entropy and temporal information).

And to understand it, we NEED to fully grasp the symmetry between the 3  $\Delta\pm 1$  planes of existence of the physical system:

So first let us Generate all the symmetries of the cosmos,  $\Delta+1$ ,  $\Delta$ -galaxy and  $\Delta-1$  stars with 5D ST:

### **The 3 planes of Galaxies:**

$\Delta-1$ (particle/atomic scale) >  $\Delta$ :star-thermodynamic scale >  $\Delta+1$ : gravitational, cosmic scale:

$Sp$ (Gravitational curved space-time fields)  $\leq$  ST (Light-neutrino waves)  $\leq$   $Tf$ (Cosmic bodies)  $\approx$

$Sp$  (young, past entropic age > ST: adult, present, iterative age >  $Tf$ : old informative, future age.

In the description of  $\mathbb{E}\Delta=3$  , galaxies, those symmetries are:

Scalar Asymmetry:

$\Delta+1$ : Cosmos  $< \Delta$ : Galaxies  $< \Delta-1$ : Stars

Spatial symmetry:

$\Delta-1$ : Sp: Photosphere  $\leq$  ST: Radiation zone  $\leq$  Tf: Nuclei

$\Delta$ : Galaxy: Sp: Halo ST: ecliptic arms  $\leq$  Tf: Black hole

$\Delta+1$ : Cosmos: Sp: Wall of fire?  $\leq$  ST: galactic plane  $\leq$  Tf: Great attractor?

Time Ages:

$\Delta-1$ : Sp: Gas Nebulae  $\geq$  ST: H-R sequence  $\geq$  Dwarf, Pulsar or hole

$\Delta$ : Sp: Gas nebulae  $\geq$  Irregular Galaxy  $\geq$  ST: Spiral Galaxy  $\geq$  Tf: Globular, Dark or Cannibal

$\Delta+1$ : Sp: Big-bang?  $\geq$  'Epochs'?  $\geq$  Big crunch or big Ripe?

Now, the reader should notice 2 things, which are quite evident. On one side, the similarity between the largest and smallest scales of physical systems, the atom and the galaxy; on the other the question marks on the big-bang theories, which are themes not so obviously related to the saint Grail of physics - the discovery during my studies of both systems of a way to unify both - the world of charges and masses, hence all the scales of physical systems of the Universe, as they had exactly the same equations in the metrics of the 5th dimension. Indeed charges and masses were clocks of time of the electromagnetic and gravitational scale in 5D metrics, only that the galactic vortex turned 10 up to 40 times slower in those metrics than a charge and were larger in a similar quantity ( $Sp \times Tf = K$ ).



And so when I translated the equations of electromagnetism to the jargon of gravitation alas, all the equations matched, those of the electron with the galactic halo, and the black hole radius appeared suddenly as the radius of the Bohr Hydrogen atom...

Thus when I found that the 10 up to 40 relationship between the charge and mass forces (the so-called hierarchy problem), was equivalent to the different of 'speed of a charge and mass clock' in 5D metrics - giving birth to an easy unification as time clocks of two scales it was the beginning of a full new field of science, which I called 5D cosmology.

Thus galaxies can also be studied in space as a fractal point with 3 regions that correspond to the 3 'canonical' topologies of a 4-dimensional world - an informative center, an energetic membrane, and the reproductive intermediate zone:

- Max. Tf: The center of the galaxy is a swarm of black holes, its densest informative masses, which produces the gravitational, informative waves that control the position of its body of stars. Beyond its event horizon, the accelerated vortex of mass of the black hole (Equivalence Principle) should accelerate light, deflecting it into a perpendicular, hyperbolic, informative dimension of height (Kerr superluminal, central singularity) ejecting it as gravitational jets of dark Entropy at 10 C.

For that reason Kerr black holes<sup>10</sup> should be called wormholes, because they absorb light but let it escape through its axis as dark, gravitational Entropy, at faster than light speeds.

-Max. Sp: The external membrane that limits the inner space-time of the galaxy is a spherical halo of dark matter, probably made of strangelets or micro black holes, which can deviate unwanted radiation by gravitational red shift and/or absorb the Entropy of radiant matter, cooling it down to the 2.7 K background radiation.

Thus those non-evaporating micro black holes and strangelets of great density act as 'proteins' do in cells, controlling the inner movement of galaxies and the outer absorption of light-Entropy.

-  $Sp=Tf$ : Stars, tracing toroid cycles form the inner space-time body of the galaxy, a bidimensional plane or Klein's disk that feeds the wormhole and reproduces atomic substances and stars. They ultimately evolve into black holes, which migrate toward the central swarm of holes, residing in the nucleus. In any Klein disk distance is measured as motion and becomes infinite when we cannot reach a limit or barrier (for example the barrier of light speed becomes an infinite Lorentz Transformation). So it happens with the border of the galaxy.

We are part of that intermediate space-time in a Milky Way, limited by its central hole and an invisible border of dark matter, neither of which we can cross without dying; since the speed of rotation of matter around the wormhole and the flows of intergalactic dark Entropy that expands space at light speeds beyond the halo *would destroy us*. Thus we are trapped in this star and planet, in a toroid cycle that will end evolving the Sun into dark matter.

Thus the generator equation of the galaxy as a Fractal  $\Delta$ -point is:

*E:Halo < stars that evolve Entropy into matter > Tf (Black holes)*

In the image, the structure of the galaxy: stars are created in the intermediate region and the center is occupied by a black hole.

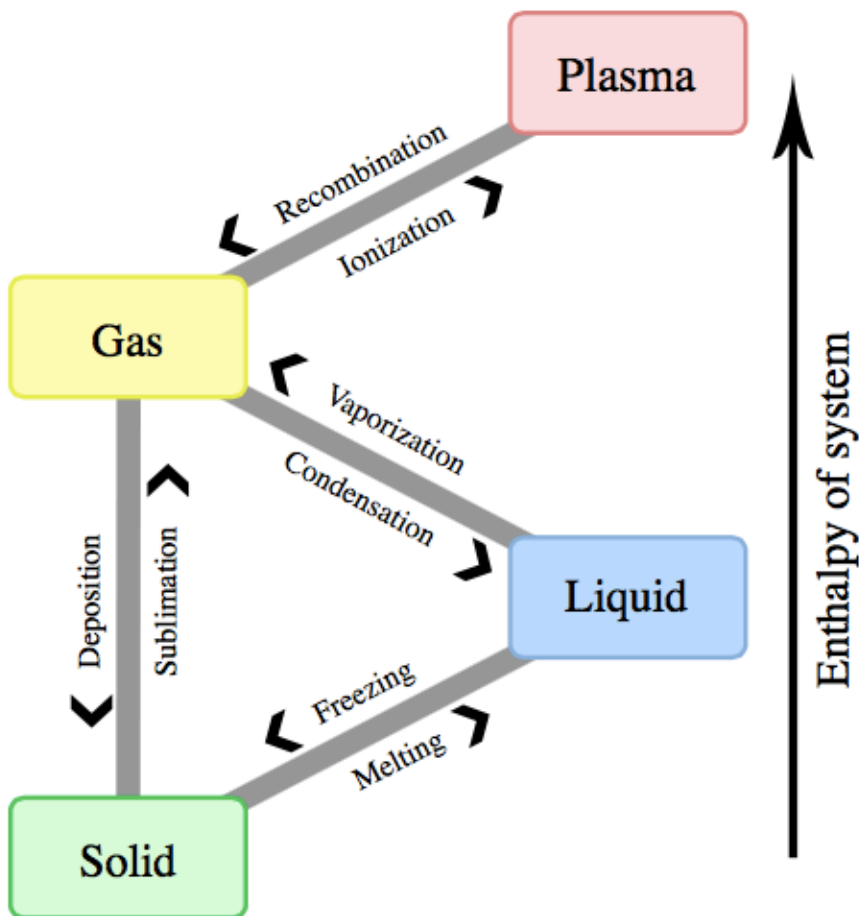
The energetic medium that transfers Entropy to the fractal quanta of the galaxy is the external interstellar gas. Finally the system is joined by 2 networks of forces: the gravitational,

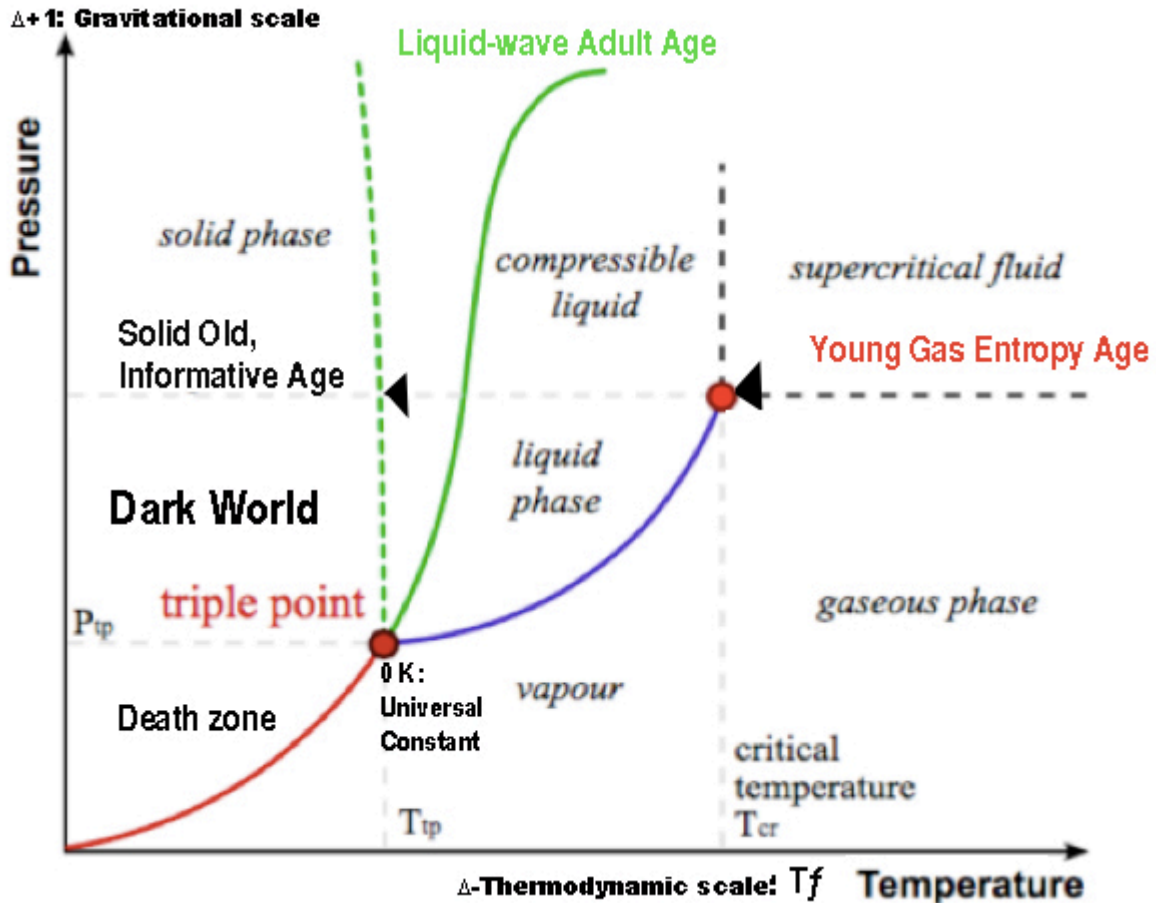
faster, non-local informative, transversal gravitational waves at the cosmological scale; and the energetic, smaller, slower electromagnetic waves at the quantum scale.

Galaxies are fractal  $\Delta$ -points with 3 standard topologic regions: a spatial body of stars and an informative nucleus of black holes. The closest self-similarity in our world is with a cell.

### PHYSICS. BACK TO THE EARTH: THE GENERATOR OF ATOMS AND MATTER

**3 Physical States:**  $Sp$  (past-entropy fields/gas)  $\leq ST$  (present reproductive wave/liquid)  $\geq Tf$  (future particle-crystal)





$\Delta-1$ (atomic/electromagnetic scale) >  $\Delta$ :Earth/thermodynamic scale >  $\Delta+1$ : gravitational/Galactic scale.

Which will in each of its parts follow the space and time symmetries of any system of Nature:

$Sp$ (Spatial toroid fields)  $\leq$   $ST$  (Hyperbolic waves)  $\leq$   $Tf$ (particles of information)  $\approx$

$Sp$  (young, past entropic age/field) >  $ST$ : adult, present, iterative wave age >  $Tf$ : old informative, future particle age.

In the description of  $\mathbb{E}\Delta-3$ , atoms, those symmetries are:

Scalar Asymmetry:

$\Delta-1$ : h-quanta: 'Planckton' <  $\Delta$ : Atoms <  $\Delta+1$ : Molecules

Spatial symmetry:

$\Delta-4$ : Light: Field: Sp: Halo ST: Wave  $\leq$  Tf: Photon

$\Delta-3$ : Atom: Sp: Electron  $\leq$  ST: Radiation zone  $\leq$  Tf: Nuclei

$\Delta-2$ : Molecule: Sp: External atoms  $<$  ST: Electro-Magnetic Bondage  $\leq$  Tf: Crystal Center

Time Ages:

$\Delta-4$ : Sp: Vacuum space  $\geq$  ST: electromagnetic wave  $\geq$  Tf: Particle

$\Delta-3$ : Sp: Plasma  $\geq$  ST: Atom  $\geq$  Tf: Elements Table

$\Delta-2$ : Sp: Gas  $\geq$  ST: Liquid  $\geq$  Tf: Solid-crystal

In the graph, the worldcycle of matter. We can see how the  $\Delta\pm 1$  birth and death phase (plasma made of dissociated ions, is the same and closes the cycle.

Thus all together we can write the following Generator combining the a(n)ti-symmetries of the 3 scales with the formalism of  $\neg\mathcal{A}$  to describe the 'Human world' of physical systems:

$\Sigma\Lambda-1$ : [Sp-Fields  $\leq\geq$  ST-waves  $\leq\geq$  Tf-Particles]  $\approx$  Plasma:  $\Lambda$ : [Sp-Gas  $\leq$  ST:Liquid  $\leq\geq$  Tf:Crystals]  $\approx$  Matter:  $\Lambda+1$ : [Sp-Oort Belt  $\leq\geq$  ST: Planets  $\leq\geq$  Tf: Star]

## SCIENTIFIC METHOD APPLIED TO ASTROPHYSICS.



Werner Heisenberg and Niels Bohr

*In the graph, few scientists are aware of the idealist, Hegelian bias of German culture a century ago, which still permeates the loss of interest for the foundations of the scientific method in mathematical physics today. Thus we shall remember here the foundations of the scientific method... Search for truth through experimental evidence, and logic sound models of reality with the addition of the elements of an organic model of the Universe. In the graph, two german idealists, during the panic of the 'parallels', which seized in rapture the entire world of mathematical physics after the greatest minds of the age could not solve, where to fit, the 'multiple new geometries of the Universe, unlocalised in space and time. Unaware of the rather obvious 5th dimensional structure of those geometries, the panic extended from Gauss and Riemann, as propagators of Lobacjewski and soon brought to mathematical physics, the confusing notions of an idealist school of geometry where 'by decree of Hilbert', we human minds invent points, lines and cycles which are not defined.*

By this the mathematicians separated itself against the clear argument of Lobachevski that affirmed, since a geometry is measured by those real parameters, the  $Tf/Sp$ , ration of time to space perception of the being ( $r^2/l^2$ ), geometries will be defined by analysis of the real spaces of the different scientific

realities we research.

Now we repeat, because today is not for mathematicians and physicists, evident:

*'Science is only concerned with the facts and events known and experimentally proved.'*

This is a key element to understand what is 'wrong' with modern physics - the abandonment of the fundamental pillar of the scientific method - mathematical equations are NOT enough to define the existence of a process in time and space, if it is NOT observed.

This is 'a religious belief', which started in the earlier XX century, within the milieu of idealist Germanic philosophy (Hegel, Hilbert, who said he 'imagines points, lines and planes', etc.). It gave us idealist political systems (communism, Marxism) and what I call 'fanta-physics' today in a rage with computer models that seem so 'truth', but are mathematical fantasies. We do need a NON-DEIST philosophy of science, and only organicism is a self-reproductive, self-sustained model - mechanical models do NOT respond to the whys of reality and require AN EXTERNAL GOD to make the machine (reason why Newton adopted it as a pious believer).

Thus what TCE provides to physics is an organic guidance to interpret the known facts, and what the scientific model expects is to construct the universe, with the particles we know in the  $\Delta-1$  scale,  $\Delta$  and  $\Delta+1$ , particle, cosmic bodies and galactic scales.

I repeat this is NOT what physicists do. They still model black holes without caring to find a substance of which they are made, just mathematically. They model the cosmic big bang, grossly ignoring clear theoretical and empirical contradictions, and they simply deny, as mathematical models become more

complex, any 'organic property' to the Universe. They do NOT even inquire 'why', it behaves as it does.

Now of course, T.Æ - the organic, fractal model of the Universe and all its parts, should include by the principle of correspondence also ALL mathematical physics, which are consistent with experience.

And in this field, limited obviously by the work of a single polymath, there is still much work to do. But so far consistency in all those mathematical fields T.Æ has been tested is extremely high.

Of course physicists and scientists do work with the more complex reality but the underlying philosophy of science is stuck on this postulates, making all very Ptolemaic, and confuse. One of the tasks of TÆ is stopping the confusion with a simple methodology and a series of basic postulates about the nature of the organic, fractal Universe. So people can drop all those 'postulates that so often hang up' on their work and break it down to nonsense.

Consider for example the electron, which is OBVIOUSLY a fractal nebulae when in ST(st)ential wave state. This is taboo. Because when we measure it, the electron collapses into particle, as always waves and herds do organically when confronting a mass (schools, armies in battle formation etc.). And because we do have the continuum mantra. Now this brought about many problems ALSO in the entire field besides the quantum arguments wave or particle, Buridan ass kind of loss of time.

Legend: The Buridan ass died of hunger, because it could not decide which to eat of to equal bales of straw, left and right. Answer both. Do the experiment, the ass will eat first one and then the other, or eat a bit of each till ending both. Wave & particle, body & head. The organic paradigm is immediate. Do



you have a body or a head, are you a body or a head. BOTH!

Now what I am going to say will be of course the reason why most 'believers' will abandon this web: physicists have no idea on the foundational laws of their discipline, because they have no idea of the nature of time, and have an astounding bias AGAINST cycles, in all its forms - cyclical geometry of space-time, the true reason of attraction between particles (which first Newton and then Einstein clearly explained, and yet they are STILL trying to explain attraction with gauge theories of exchanges of lineal particles), cyclical time clocks with different speeds, which follow albeit with accelerations and decelerations in time, the laws of the 5<sup>th</sup> dimension (so charges are the clocks of the quantum scale, masses of the gravitational larger cosmological scale, 'time curves space into masses', said Einstein) and yet they ARE still trying to unify both forces with 'gauge theories', when we shall show its Unification is immediate with 5D metric.

You see, I look at the immensity of the 5th dimension and see I am nothing but dust of space-time, with a finite time duration. I see mankind is 'a mush on the surface of a rock lost on the corner of the Universe' (Schopenhauer) 'departing from those facts we can talk about man'. Yes, we cannot know the limits of the Universe, we cannot affirm the big-bang theory is right, we cannot deny the infinite number of points of view, monads that perceive and order reality, we cannot deny as physicists do the organic properties of quantum systems which are body-waves and head-particles at the same time, that move as waves and apperceive information as particles, just because as economists do with human masses, we can use statistical methods to analyze them.

This comes now and here for a simple reason. There are certain endemic errors in the way to do mathematical physics today. One of them is linearization.

It is understood as a 'dogma' that attraction between systems do happen by exchange of particles, called gauge 'bosons'. This is NOT the case. It is ONLY the case of attraction or repulsion, i.e. communication between 2 points, according to the second Non-æ postulate of mathematics. It is in that sense important to have always in mind the geometry of the Universe and its worlds constructed with the properly defined points, lines, cycles and planes, and minds with the 5 postulates of i-logic geometry, which define and how they structure any mathematical physics in any scale.

Unfortunately physics today does no longer respect those principles of the Scientific method and or without a complex view of time and space, the dualities and fractal processes of creation of the constants of space-time and planes of the 5th dimension.. This must be stressed once and again. Present physics has an ideology of subjective creationism behind it, born of the German Idealist school at the beginning of the XX century (Hilbert, Bohr, Heisenberg), which is today unknown - as most 'European', historic biases of sciences - by the American and Asian practitioners.

The 'new civilizations' ignoring how German Subjective philosophy deformed the scientific method defined by the Rational Greek-Latin civilization (Aristotle, Descartes, Bacon, Galileo), don't understand what Hegelian idealism meant in the German arrogant, subconscious collective of the turn of the century that created Communism (Marx), Nazism (Hitler, Rosenberg), the Copenhagen interpretation (Bohr, Bohm, Heisenberg) and the Axiomatic Method (Hilbert, Cantor), which resumes it all:

'I imagine lines, points and planes' said Hilbert in 'Grundlagen der Mathematik' – the foundational book of XX c. Mathematical physics. Hilbert Axiomatic method, which tried to prove all mathematics, and hence all possible mathematical equations of 'imaginary physics', departed of two absolutely

wrong elements: 'imagined Euclidean points with no breath, lines with no breath, planes with no height', which were already proved false by the existence of 'infinite parallels crossing a point' (5 non-Euclidean postulate). Since if a point lets more than a parallel to cross, it has breadth to fit them. It is a fractal point, which grows in size as we come closer to it and enlarge it. This is the REAL unit of the fractal Universe. Points ARE not imagined, but humans do have limit of perception.

Point particles ARE not points. Simply they are the LIMIT of our perception of the Universe in the lower scales. As galaxies seemed points in the past. The 5th dimension of the scalar Universe has only observable limits.

So stars might seem points as particles do BUT if  $\infty$  parallels can cross them, they are NOT Euclidean. Thus T.Æ first completes mathematics with 4 new Non-Euclidean postulates: pints with breath, which are therefore time-space cycles, the new unit of the universe: a system which has an internal vital energy enclosed by a cyclical '1-sphere'. And lines are waves, as its points do have volume and surface. And planes are 'networks of lines', with a wave amplitude. Suddenly mathematics becomes real and we can then consider godel's incompleteness theory right: we cannot prove mathematics, an 'experimental' language, without reference to the real elements.

Since physics is basically mathematics applied to the description of physical systems, with elimination of all other perspectives, it is obvious that we must first consider some basic corrections on the mathematical models of physics in order to put some order to it.

This is specially relevant since physicists adopted a century ago a specific 'ideology' of mathematics, the abstract, idealist approach of Hegelian Germany, in which the influence of the

idealism and subjectivism proper of the Germanic 'subjective belief-psyche', as opposed to the rational, external Latin perspective imposed a certain way to interpret mathematical realities. Since in this view, mathematics is considered an ideal language of the human mind and what the mind perceives as real:

2 examples on what difference it makes, to see the world in abstract or in organic terms.

It was the axiomatic method of Hilbert, is full of meaningless ego-trips, which influenced the 3rd, formal age of mathematics; Einstein's rejection of 'substance' (formal motion in fact) for the waves of light, and Bohr's rejection of density (fractal structure) for electrons. So Hilbert converted mathematical elements (points, lines and planes and their logic relationships into 'platonian eidos=forms of the mind', Einstein converted 'space' into 'frames of reference', perspectives of the human mind and its visual light space-time rod of measure, and Bohr converted densities of 'boson light' which form the electronic wave into probabilities of human measure.

It was the seventh day and the 3 Jewish-German Gods of XX century theoretical science rested. They had finally achieved the transformation of the old Abrahamic religions in which the words uttered by rabbis and priests were 'truth per se', into modern scientific religions, in which the 'imagination' of the self-named geniuses of the universe were truth per se. And so Einstein when a perhaps more insightful journalist told him, what if 'Relativity is not truth' (beyond its capacity to measure from the human point of view), then 'God should change the Universe so beautiful it is'. And the 3 together spanked the monkey ever since with droves of scholars all happy thinking they were imagining the Universe.

Now back to reality mathematics remained immutable, points

still existed as fractal beings, lines were still waves of points communicating formal motions between them and planes still were created by points into topological networks and planes outside the brain of Hilbert.

For example, a number which is ‘a society of identical beings’, whose properties are derived of the social nature of the 5D universe of parts and wholes, and whose sequential order in a line derives of the fact that parts come before wholes, is not yet defined.

In essence, the 3 branches of mathematics correspond to the 3 structural elements of T.Æ: geometry to space, algebra to time and analysis to the fractal structure of the 5th dimension. We only need to update mathematics for consistency between the 5th Non-Euclidean postulate of geometry and the 4 remaining ones, still Euclidean, and the Aristotelian logic of Algebra, to the ternary symmetries of fractal 5D space-time to make mathematics a ‘realist’ experimental science.

This might surprise the reader, and it is perhaps the highest feat of T.Æ – to be able to unify all different languages of human thought, proper of each discipline. Consistency achieved in art styles, when developing the theory of human superorganisms, might surprise the reader, is based in the same 3 ages of time, that allow us to define the laws of quark colors. And yet, this unity of the ternary symmetries of the Universe makes T.Æ so enticing to the mind.

However and this also differentiates deeply T.Æ and General Systems Sciences or any ‘serious’ scientific model of reality for that matter with present physics, T.Æ considers ‘ABOVE’ mathematical reason, Experimental Evidence and at the same rank of truth Logic temporal reason (of a kind paraphrasing Saint Augustine, higher than that of ‘present’ man), the ternary logic of the symmetries between the 3 topologies of space and the 3 ages of time and the 3 relative scales of size co-existing in

all organic structures of the Universe.

Thus given the confused state of affairs in the definition of fundamental concepts such as time (logic), space (dimensions) etc. in modern physics, we need to consider the seemingly not so innovative principles of the scientific method with the slight modifications of an organic, symmetric ternary Universe. We resume the new scientific method in our simple formula,  $T.\mathfrak{E}=SC^3$  with each letter signaling a fundamental principle of truth in science:

As all:

**T:** Time-space systems are:

**$\mathfrak{E}$ :** Organic, Experimentally Evident.

...meaning Time-space systems do have organic properties, which can be explained mathematically and logically with the languages of space and time, and proved experimentally.

And since they are made of 3 simple elements, 5D scales of Space and Time they are:

**S,** Simplex and their truths follow the proof of simplicity (Ockham's razor)... yet they are also ternary..

**$C^3$**  Complex, due to the ternary symmetries of its structure ternary complexity born of the...

Cyclical repetition of those Simplex principles which..

Correspond with all previous theories of reality.

Thus  $T.\mathfrak{E}=SC^3$  resumes the Principles of Science and the Organic paradigm, are however broken in present science, specially by mathematical physics, which no longer respects

the 3 principles of classic philosophy of science: experimental proof, Simplicity (Occam's razor) and Correspondence with previous theories. And this is the 'problem of modern physics.

Now once we have brought Mathematics back to reality from the axiomatic age of German idealism, we can build a much sounder mathematical conceptualization of the key concepts of mathematical physics, dimensions of space-time with motion (topological fractal dimension), lines≈waves and its ternary networks that come together forming super organisms, relative planes=topological networks with dark spaces between them, dual moving and static formal motions, integrals and derivatives in space and time of those social networks, and emergence processes of time clocks and lineal entropies.

*This shows a fundamental truth of T.Æ: reality, experimental evidence is always the definitive element to analyze truth. Hence the rejection of the axiomatic method of mathematics, in the line of Lobachevski and Gödel, and the present estate of fantaphysics, in the line of Einstein's expectation for real descriptions, cut-off substances for black holes (tcb quarks, its atoms of maximal density) he refused to call black holes and called appropriately frozen stars; the only physicist we 'save' from our harsh judgment on their merits as explorers of the why of the Universe*

Now we want to be slightly more precise to attack a fundamental conundrum which matters to this blog – the structure of the Universe and the risks imposed by the big bang on Earth. What are the chances that the planet become a black hole or a strangelet? Are we at risk? It is the Universe made of them? Are we so important that we cannot disappear?

To that aim we must first consider what is possible in physics and what is not according to the scientific method.

Now, the fundamental conclusion of the scientific method

regarding to astrophysics is obvious but only Einstein pound on it – as he was the only physicist we save as philosophers of science, for respecting the scientific method of true evidence, and simplicity:

‘Physicists should not be occupied with the study of events or species of which there is NOT experimental evidence. Since it is not science’.

And ‘I know when mathematics are truth but NOT when they are real’.

In brief, a physicist must use only the available particles and entities to construct the universe, not those which its mathematical, inflationary distorted linguistic mind view wants to crate for the pleasure of it. Information, minds are inflationary. They are a dime a dozen billion, to put it mildly but worlds of linguistic nature are not reality.

So we will build in Tœ, the Universe perfectly logically explaining al phenomena only with the available particles and forms, and the ternary symmetries of the 5<sup>th</sup> dimension, fractal space and cyclical time.

As a galaxy is also a ternary system, a time-space being, defined by the Fundamental Equation of T.Æ

### **Minkowski’s 4 Dimensional ‘Space’.**

The limits of special relativity. The meaning of light constancy of space-time rods of measure.

A second reason why the blunder of lineal time now is canonical has to do with a ‘systemic method of hiding falsity’, also proper of believers of the modern age – the use of mathematics. This lineal time definition was carried in the mathematical definitions, apparently and improvement, which



however obscured its simplistic falsehood. So when Galileo defined mathematical time he used a formula:

$V=S/T$ , where 2 parameters are of open space (lineal motion or speed and spatial distance), and so time became forcefully a parameter of lineal speed-space, linearized into the x-line of the 'Cartesian coordinates' (which from a mere mathematical tool became the canonical expression of a single lineal time duration as a parameter to measure displacements in lineal space.). Hence Lineal Time duration = Lineal space/Lineal speed.

This process culminated when Einstein introduced in his equations of special relativity a parameter directly derived from Galilean 'spatial time', just by substituting the speed of any object by the speed of light,  $c$ . So Einstein instead of writing  $v= s/t$ , wrote:  $c=s/t$ . From where  $space=ct$ .

Now for the shortsighted physicists - get a good telescope, and look at this formula:  $S=ct$ , *means that 'ct' is NOT the equation of time, but an equation of Space.*

You are NOT defining Time. *You are defining space= CT.* So when you write:  $S^2=x^2 + y^2 +z^2 -(ct)^2$  you cannot go around saying alas!, we have found that  $ct$  is time and time is a dimension of space!!! Because  $s=ct$  is NOT time.

Besides there is nothing especially new about 'it'  $\approx ct$ . As it is the same definition of lineal time of Galileo, changing the speed of the object by the speed of light ( $s=ct$  as opposed to  $s=vt$ ).

The difference is that Galileo was not so dumb, as to say that time was a dimension of space. He always knew  $v=s/t$ , was just the measure of the speed of an entity, using a clock to add the frequency of the steps of space he measured. Neither Einstein was so dumb.

It was Minkowski, the guy who suddenly claimed this  $ct=s$ , is Time and called it the 4<sup>th</sup> dimension of space. How silly is that? As silly as it looks. And for that reason Einstein protested; and quipped that this was NOT time, but  $ct$ , and added 'wires don't travel to the past'. And then he quipped when he was asked again 'what is then time', 'what a clock measures'.

Indeed, when dealing with the errors of the 4<sup>th</sup> dimension of time as 'space' we must ascribe those errors to Minkowski, the guy who invented the concept, not to the young Einstein, which only when becoming so famous and fond of power commit its errors, and became a 'physicist' after 50, when all his most relevant work was done and his attempts to unify geometrically the forces of nature, lacking the understanding of fractal space-time and the 5<sup>th</sup> dimension, became a barren land.

Einstein's greatest discovery, which not only laid the corner stone of the theory of relativity but revolutionized the whole physical and philosophical understanding of the problem of space and time, was the discovery that absolute time does NOT really exist.

This was a prolegomena to build up the metric of the 5<sup>th</sup> dimension of a Universe of infinite time cycles. But alas! To the rescue of lineal time came Minkowski to establish an even more 'solid' form of lineal space-time.

Shortly after Einstein developed his theory in 1905, Minkowski tricked the world, considering that its essence consists not as much in the rejection of absolute time as in the institution of a mutual link of space and time, in virtue of which there exists a single absolute form of existence of matter: space-time.

The separation of space (the spatial coordinates) from time (from the time coordinate  $t$ ) is to a certain degree relative, depending on the material system (the "system of reference")

in relation to which the spatial and temporal order of the phenomena is determined.

Events that are simultaneous with reference to one system need not be so with reference to another.

“The definition of the order of phenomena cannot be, of course, completely dependent on the system of reference. The order of events that are connected by direct interaction, it stands to reason, remains one and the same with reference to all systems, so that an action always precedes its result. But for events that are not connected by interaction the order of time turns out to be relative.

Since the spatial order (in its pure form) refers to simultaneous events and simultaneity is relative, the separation of purely spatial relationships from the general aggregate of space-time relationships turns out to be relative, depending on the system of reference. Space in the abstract sense is, as it were, a “section” of the four-dimensional manifold of space-time that is laid through simultaneous events (in reference to a given system).”

This is trivial, obvious and completely irrelevant to the deep finding of Mr. Einstein who complained for a while with his quipping ‘time wires don’t travel to the past’ (information indeed does not travel to the past only entropy-death, as we shall see latter).

Now, the attention from the big discovery, that there are infinite different time cycles in the Universe, was completely forgotten, to give way to a fully irrelevant fact, that because time cycles ARE of different speed in different regions of the Universe, we cannot know simultaneously unless there IS a direct causal relationship what is the time clock in other ‘region’ of reality.

Alas, the whole thing that mattered then was to ‘measure’ the other time cycle as precisely and fast as possible from our human clock point of view, using to that aim a ray of light, which travelled to us at a  $ct=s$  speed – a time delay that we had to subtract match the present time in our point. This is really basically what is all about in Minkowski rule of measure.

And then his nonsense self-publicity about his ‘discovery’ of the 4<sup>th</sup> dimension of time.

I do understand though Einstein, a loner, fed up of his peers who once said ‘in this profession there are less people than fingers in one hand who are here for knowledge’ and ‘two things I find infinite the Universe and the stupidity of man,’ and I am not sure of the first.

The opportunism of people like Minkowski and Hilbert, those who stay in the ego of ‘imagining’ science who first scorned his work for simplicity and then lionized it is telling of a truth of philosophers of science: truth and good nature go hand on hand from Socrates to Leibniz, and among physicist probably Einstein, who despite its letter pressed by his Jewish friends was quite a pacifist.

Consider this: in November 1915 Einstein finally completed the general theory of relativity, which he considered to be his masterpiece. In the summer of 1915, Einstein had given six two-hour lectures at the University of Gottingen that thoroughly explained an incomplete version of general relativity that lacked a few necessary mathematical details.

Much to Einstein's consternation, the mathematician David Hilbert, who had organized the lectures at his university and had been corresponding with Einstein, then completed these details and submitted a paper in November on general relativity just five days before Einstein, as if the theory were his own.

There you have Mr. Hilbert who was not happy enough 'imagining the whole body of mathematics, in the past and the future – he also imagined the 20 some problems we were supposed to resolve to complete his work', but alas, was on the path to discover also the foundation of modern physics.

It reminds me of those physicists that keep imagining the truth of all sciences, which is fine – to understand the thoughts of god not its details, as Einstein also wanted – but and this is where they ALL failed, including Einstein – departing ONLY from the limited reductionism of a single plane of space-time, the Newtonian aberration of the Cartesian multiple worlds, and of only a kind of properties – mathematical, and of only a kind of mathematics, those with imagined points, and only from the bottom up, departing from particles, and only with the external properties of particles (only one of its 6 Aristotelian motions).

The likes of Mr. Schrodinger, who 'imagined to understand life' (what is life?), or Mr. Penrose who imagine what is consciousness and of course Mr. Hawking who imagined black holes and M-Theories - not to mention the past ones, Mr. Kepler who thought finding the orbits of a star was ALL we needed to know of stars to have 'an intelligence like God', or Newton, with his absolute space-time and silly formula extracted from Kepler, through a derivation that doesn't need more than 3 lines and of Clausius who extended the heat pressure of a steam machine to the *entire universe as its single arrow of time!*

It is of interest to mention now that we have trashed Mr. Minkowski (: it is a pleasure of the Taoist philosopher to reduce human egos to rubble, as one will then receive by the law of action-reaction, the true merit of Mr. Newton a similar treatment, increasing the feeling of finitesimal existence required to dilute one-self into the whole :), the merit of his 4<sup>th</sup> space-time formalism.

Essentially what Mr. Minkowski discovered was just another co-invariant law of the 5<sup>th</sup> dimension metric:  $Sp \times Tf = K$

In his case, he found that despite the variation of the length in space of a system and its parallel dilation of time, as a being moved faster trying to cross the barrier of c-speed and emerge into a larger plane of the 5<sup>th</sup> dimension, the product of both Space and Time, remain co-invariant.

Thus he found a particular case of 5 D Metric, and defined a co-invariant quantity, the timespace 4-dimensional block. It just made it 'too rigid', 'too lineal', and missed the duality of bidimensional planes of space and cyclical time, its holographic processes of creation, and scalar pan geometries.

So this was a worldview, which we accept but clarify and correct into a larger, simpler, more revealing worldview with the 5<sup>th</sup> dimensional metric.

The concept was further expanded with a 4-vector analysis of many other fields of physics, and in all of them, we shall find the same duality. On one side the 3 vector that describes the volume of space, on the other the lineal time duration of the system.

Now in those 4-vector analysis, the most interesting is the one in which the elements 'evolve' further in length of time and space, using to represent time, the function of Energy and to represent space the function of momentum (with 3 vectors).

The meaning of this process of bringing together integrals in time and space of smaller moments is in fact the essence of 5<sup>th</sup> Dimensional growth. In that regard momentum adds to a space-field, a scalar magnitude, which is a particle state of a larger, denser 5<sup>th</sup> Dimensional scale.

We could say that if space exists in a single plane of the 5<sup>th</sup>

dimension, momentum exists in 2 of them. And energy is the integral of momentum along speed, the 'clock of time of the gravitational scale', and so it can only be understood properly in terms of multiple co-existing 5<sup>th</sup> dimensional scales.

Yet all what mattered to Einstein, as to physicists, who are merely those who study the 'external motions/energies of beings' was to measure exactly the paths in space of beings, in relationship to the human frame of reference. So what really he did was to establish a new rod of measure, -constant c speed- for the entire Universe, expanding a notch more human objectivity from the valley of Abrahamic religions (chosen race/land) to the species (oikoumene religions), to the planet (Buddhism, Greek Naturalism), to the sun (Copernican revolution), to the galaxy (that exists on a background of fixed light space-time). This of course was NOT the final frontier. In 5D we expand further to all scales of space-time, AS LIGHT IS ONLY ONE OF SUCH SCALES of measure size and time speeds.

It is not even the speed of light (though light moves at such speed, other beings do). It is rather the 'rod of measure of space, of galaxies, and its lowest perceived human scale, which is electronic and feeds, absorbs, gauges and measures reality as fixed distances with the light it absorbs.

Thus the organic paradox merely explains the limit of light speed with the Galilean paradox of relativity: all what moves is a distance in still perception and when 2 electrons measure light is because they entangle and lock its distances with other electrons, fixing their distances (and causing all other fractal parts of the Universe to change their coordinates).

This is the true meaning of relativity: the stillness is not that of light but of the electrons that measure light in their stop and go motions, provoking the changes in parameters of all other parts of the universe around them.

And so ultimately the speed of light is how fast information can be transmitted externally between electronic 'minds', through its informative wave of light space-time.

But the corrections finally made physicists to measure accurately or at least from an electronic mind point of view, the distances of the Universe. And thus it was a huge success.

Since in physics, all what matters about time is a single equation of spatial external translation,  $V=s/t$ , and the same in relativity where time is  $ct$ , hence  $vt$ , hence  $s/t \times t = S$ , a mere parameter of space disguised as 'all types of time', as no other of the time-motions of reality are mathematized on those equations. So physicists would do much better and help mankind broaden his horizons if they were more humble and explain that whenever they talk of time, they just mean 'speed' of external motion. And that is what has its curious properties of spatialization (as it is in fact just a lineal spatial motion) etc. So the properties of 'time studied in relativity physics' are those related to motion in space (we shall see other time notions in physics, such as expansive motion in space, or entropy and present, simultaneous measure etc. in due 'time').

In the center of the cone we see, the 'slice' of present, instantaneous space, or 4 Dimension of time, which represents the modern version of Newton's 'instantaneous' absolute space, perceived in an infinitesimal quantum of time, again used merely to measure external motions=changes of time:  
 $V=\partial s/\partial t$ .

Einstein went into further detail in those measures, using instants of time to give us the 'still photographs' (curved geometry) of the cyclical, physical Newtonian 'time-clocks' or masses. So if Newton had given us a 'long time' view of the clocks of the Universe, in lineal equations, now Einstein said that 'time curves space into mass', and added precision to the instantaneous measures of the largest clocks of time of the



Universe, showing their curvature and establishing they accelerated inwards, increasing the future information of matter systems (Principle of equivalence between mass and acceleration).

So we live in one of such mass vortices of accelerated information (the galaxy centered into a black hole) - reason why it is so important to know cyclical time. We DO not live in the outer Lineal Space between galaxies which expands and represents a relative past arrow of death, disorder and decelerations.

This duality of past-entropy-death and future-information-life was better understood by Feynman, who defined in the left graph, antiparticles as relative past flows that annihilated future flows or particles. Feynman took thus a bolder step, with its time-space perpendicular coordinates, considering that light-space 'travels' in present time (green photon), as a reproductive wave, and antiparticles (right) travel backwards in time, as they indeed do. Since they represent the entropy of death.

In that regard, a deep error in mathematical physics and its models, which ignore the 3 arrows of time, is the use of a faulty logic in mathematics and physics based in single causality. All what matters is to know how fast information can be transmitted externally through the fastest informative wave our light space-time.

### The paradox of the Twins.

In those themes, of interest is also the paradox of the twins, proved in science, which in layman terms is badly explained. It really means that 'lineal, entropic motions' are faster in time and live shorter than cyclical, closed paths. Again this relates directly to the laws of the 5<sup>th</sup> dimension and the definition of life and death and entropy treated latter in detail. Essentially,

time is cyclical, and a cycle in terms of 'space' implies a certain acceleration (at least angular, often with decelerations and accelerations in motion). This is what truly slow down time. While lineal motion accelerates it. In terms of death and life we write two equations:

Max.  $S \times \text{Min. } T = \text{Death}$  (a big bang explosion of expansion in space with no time)

Max.  $T \times \text{Min. } S = \text{arrow of Life towards higher information}$  (a series of information cycles with slow time happening in minimal space).

$S=T$ , arrow of balance and immortality.

In that regard, by the principle of correspondence, we can clarify directly from the equations of 5D physics, which apply to all systems, not only physical (as those equations of life and death) the laws of any science including obviously physical sciences. We do NOT need to go into the 'explanations' of those facts provided by physicists, as that would be just pedantic writing – they are available in any book of relativity, for example, in the previous case of the twin paradox. What we shall do when dealing with facts of science is to extract them from the larger, wider formalism of 5D fractal, cyclical space and time, which is truly the jargon ABOVE that of any science.

Of course I do not expect mankind to adopt that jargon, now in my lifetime, but it is just a question of 'time' perhaps in the future when Asians find cyclical time amenable, that all this is rediscovered and then it will explode, as it often happens in science with relative amateur or conflicting authors, as this one, from Mendel to Sancho (-;

Fact is the simplicity of 5D and its wider range of application makes the Universe far more fascinating and intelligible that it is now.

So in brief, each plane of existence conserves the actions of space-time, either measured as 'actions' in quantum physics as molecular motion or as speed in gravitation and its associated 'momentums'.

Linearity and continuity in space the single arrow of past-entropy-death of physicists.

On the other hand time  $\approx$  information and 'energy' are parameters that are conserved together and flow through different scales of reality. So we should talk of 'energetic information', or 'formal motions', as the parameter that systems use to coordinate the 3 co-existing planes of its worldcycle and organism.

We will try to keep the exact wording only on physics, as for other sciences what matter is the quality of our conceptualization. Energetic information, present formal motions, Space-time beings, all those concepts are synonymous. When separated we rather use past-entropy and future-information as they are more telling.

Death in that sense is the breaking of the balance between those 2 arrows that come together into the 'actions of energetic information', which all systems use to display in its present relative  $\Delta$ -planes of existence.

This duality of past-entropy-death and future-information-life was better Understood by Feynman, who defined in the left graph, antiparticles as relative past flows that annihilated future flows or particles. Feynman took thus a bolder step, with its time-space perpendicular coordinates, considering that light-space 'travels' in present time (green photon), as a reproductive wave, and antiparticles (right) travel backwards in time, as they indeed do. Since they represent the entropy of death.

A third concept of time in physics is less advanced, and still hangs on despite Feynman and Einstein:

The concept of 'entropy' as the only future arrow of time, or death arrow of expansive disorder, obtained in XIX c. studies of expansive gas.

Einstein's contributions to the debate. General relativity and mass.  $E=Mc^2$

Unfortunately cosmologists have expanded that arrow to the entire universe, because they don't understand Feynman, Einstein and their findings: that 'time curves space into accelerated vortices of mass-information' in galaxies, which balance the entropic arrow of expansive space between galaxies (hence both arrows as in  $E \leftrightarrow Mc^2$ , the fundamental equation of time in physics balance each other).

Now here again, Einstein, a man of certain merit, gave us some contributions, which were ill understood philosophically by Minkowski, (special relativity), and better understood by Gödel, who corrected Minkowski with his solutions to general relativity.

A careful analysis of this, far more important theory, along the equation of Entropy and Time in physical systems ( $E < = > Tm$ ) would have easily revealed the 3 arrows of space-time of the universe, which in physical terms could be called in the 3 scales of reality (the  $\Delta-1$  quantum,  $\Delta$ -thermodynamic and  $\Delta+1$  gravitational main scales – latter studied in physical posts in more detail breaking them according to the fractal ternary principle in more subscales):

- Past, Lineal motion, expansive motion entropy ( $\Delta$ -scale), formless gravitational vacuum ( $\Delta+1$  scale) and electromagnetic, quantum vacuum ( $\Delta-1$  scale). Those 3 vacuums ARE defined by humans with 3 'constants of space',

H, k, and C, the 3 more important constants of physics. Why those 3 constants measure different 'parameters' (H: actions or angular momentum: k, entropy; and C: speed) is a very interesting question about how humans and 5D in general deforms our electronic mind perception of lower and upper scales of reality. Ultimately the observer paradox MEANS and we shall constantly bring it to explain the bias of human knowledge, that what we see of other scales relates to how electrons see it. We are what we eat. In this case we are what electrons eat as relative 'energy and information' (t2 concepts also worth deep thought before equations are settled).

- Future, Cyclical time clocks of accelerated inward, implosive motion, photons, charges ( $\Delta-1$  scale), masses ( $\Delta+1$  scale and atoms (thermodynamic scale). Again here physicists have looked for a unification equations of charges and masses and its forces, which is a trivial result of 5D metric. THIS IS WHAT they call T.O.E. the saint grail of finding an equation that relates the constant of gravitation and electromagnetism and its cyclical charges and masses (its clocks of time). LOL, how little they ask and how little they solve.

- Liquid Waves of present, repetitive, hyperbolic, reproductive Time which only Feynman in his diagrams fully realize, but Einstein also worked out in its simultaneous present measures. This is the most important, balanced, eternal product of Future x Past arrows that reproduces both, the confluence point.

So the Universe is constructed with those 3 arrows. And all together form a worldcycle, not a worldline, which goes through them in zero-sums from past, young entropic ages to present, repetitive ones to future particle, old age, informative still moments. But amazingly enough in the beautiful formalism of General Relativity (the true merit of Mr. Einstein, the rest being most from others, mostly simple and of little value in its interpretation), we do have a solution that shows it.

Indeed, Kurt Gödel proposed solutions to the equations of general relativity whereby time like world lines can bend back on themselves. Unless one accepts a process philosophy and thinks of the flow of time as going around and around such closed time like world lines should not exist. This final attack from within to the lineal duration time of Abrahamic Religions and military physics however puzzled everybody and Einstein, despite coming from his best friend, did not like it at all. Kuddos for Gödel, who also showed Mr. Hilbert that we do NOT imagine points, lines and planes, because if mathematics is also a realist science, albeit in need of a proper  $\neg \mathcal{A}$  grammar, which this Basque, Fermat-like amateur will provide for future professional scientists to boast how smart they are ☹;

This, Einstein insisted as he obtained first that equation in its inverse form:  $M=E/c^2$ , in his paper 'can energy create mass?'

And he added, 'the separation between past, present and future is an illusion'. So did Feynman, with its deep insight on the 3 'time arrows' of particle physics: present, reproductive waves of light-space and 'bosons', past arrows of entropic antiparticles and future arrows of informative particles that last much longer in time. So another fascinating, 'immediate' equation of 5D physics are the equations of life and death for all systems of the Universe such as:

Life arrow: Max. Time duration x Min. Space extension: Max. T x Min. S

Death arrow: Max. Space expansion (big-bang, dissolution of organisms into cells and atoms) x Min. Time (instant of death).

Yet again, the sum of both: Max. T x Min. S + Max. S x Min. T = zero-sum, which makes all scales and closed systems of the Universe eternal presents. In physics this is the meaning of Feynman's diagram:

Past anti particle x Future-particle = Present light wave, whereas particles last max. Time as they collapse space into minimal size and antiparticles last minimal time while they expand space annihilating particles in the moment of death.

As such Feynman's work is more advanced than the outdated entropy theory and the so much praised Einstein's revolution of space-time, who still missed, the ternary fractal, multiple Nature of times and the existence of its 3 time arrows. He simply 'froze' space-time in present slates to measure with differential equations (by definition infinitesimal moments) as Galileo did, every instant of an external time=change = physical motion. But the long time arrow of eusocial evolution of parts into wholes, studied by the 5th dimension, and by Theory of Evolution meant nothing to him.

Neither the cyclical time arrow of 3 ordered time ages, past-energy, present reproduction and future information, which define the existence of all 'world cycles' from human life to matter. Though he found its dual equation, Energy (expansive entropy-past) $\approx$ light-present-wave:  $c^2 > M(\text{time vortex-future})$  he still ignored its essential meaning. So he would say 'time is what a clock measures'; and used it fundamentally as Galileo, only to study of the all the types of time motions of the Universe, for the analysis of external time-motions, which is the restricted 'job' of physicists.

Time however has besides present, differential, external motion-measures in space (Galileo's  $V = \partial s / \partial t$  and Einstein's  $S^2 = S_x^2 + S_y^2 + S_z^2 - (ct)^2$ ), other type of time-motions, mainly informative evolutions (Evolutionary theory in Biology, vortices of evolution in masses, historic vortex of evolution, future 3rd age of maximal form and in-form-ation), and present, reproductive wave-bodies.

And it is fractal, in infinite different waves, reproductive bodies, entropic limbs and fields, informative particles and

heads, whose geometry stores maximal information in minimal space (so all relative future, informative, gauging particles, heads and cameras are geometric).

But there is a *much more important concept of time, in 5dimensional physics*, related to the meaning of the Universal Constants of 'Energy and Time', of the 3 fundamental planes of the 5th dimension and its physical systems, the  $\Delta-1$  quantum scale, the  $\Delta$ -Thermodynamic scale and the  $\Delta+1$  cosmological scale, which will truly explain the equations and meanings of physics.

It is a simple relationship. There are 3 Constants of space-time in each scale:

$\Delta-1$ : H-Planck constant: Energy =  $H \times f$ ; whereas H is the constant of action and  $f$  the measure of frequency, the internal clock of time of quantum systems.

$\Delta$ : k-Boltzmann Constant: Energy =  $2/3k \times T$ , whereas k is the constant of action of thermodynamic systems and T, temperature, the measure of molecular vibrations, the internal clock of molecular systems.

$\Delta+1$ : c-Light Space Constant:  $E = c^2 \times M$ , whereas  $c^2$  is the constant of action of the Gravitational scale and M, Mass, the cyclical vortex of time, the clock of Gravitational systems.

How energy and time transfer between scales, how a clock of time disappears in one scale, so Standard Model particles do not have mass, and then its frequency clocks transfer time in the form of radiation to the thermodynamic scale, and then Black holes of the gravitational scale don't have temperature... questions that physicists have not even answered because using lineal time, as Pauli once said of a paper, 'they are no even wrong'... and will open up an entire new world of relationships and meanings to each and all sciences.



We are fast introducing a picture of the enormous number of advances in all sciences, brought about by cyclical time and the understanding of the 5th dimension and its rather simple but powerful metric to explain all what exists as travels in time through its arrows of cyclical time from birth to extinction and then the arrow of social evolution from parts into wholes, of social love of superorganisms, of 5D.

For example, genetics codes time from the lower  $\Delta-1$  cellular scale to the upper organic scale, providing its social evolution through the informative arrow of future. But the larger whole does NOT code the lower scale as that is a flow of relative past motion.

However the larger future whole DOES move synchronically the past cells. And the past scale cannot send pure flows of past motion to the future (entropy arrow of thermodynamic). Recently we have found that in fact psychological time also obeys the same arrows.

We move first subconsciously in the past, and then we do think with the relative future brain and control motion. Time IS all and existence is a travel through 3 scales of the fifth dimension from seminal seeds that accelerate in time (palingenetic evolution) and then slow down their clocks as they surface into the  $\Delta+1$  scale of time, and then live the slower times of the super organisms of nations and civilizations of history, to die fast back to cells, completing a world cycle...

Those are fast reviews of some classic themes of time in physics, biology, sociology and psychology - mental time, which conform the 4 fields of time-space sciences unified by the new metric of 5D fractal, cyclical space-time.

In that regard, perhaps the most important truth about time in physics is that is NOT at all what there is to time, but people and physicists think it is, limiting their inquire.

*Most people today believe that all what matters to time is what 'physicists measure'; so it is a lineal single duration. So before we go ahead understanding the meaning of a time cycle and its 3 ages, and its symmetries with the 3 scales of the 5<sup>th</sup> dimension and the 3 forms of topological space, we have to understand the limited understanding of time in physics, in terms of 'external time changes', instead of the much wider concept of multiple time arrows, in a Universe made of space-time beings.*

*Time in physics in that sense also understand 'lineal time-entropy', informative time and reproductive time, but in an unconnected historic manner. So it first studied 'lineal time', still its dominant form, as its wordily profession is to make energetic machines.*

As Europe expanded its military empires physicists lineal worldview on time became global, and time all over the world was measured with a single mechanical clock equalizing to the standard second of lineal duration, all other cycles of the Universe - never mind all those mechanical clocks were also made with spheres and cycles, including Galileo's pendulum clock!

Now if we define philosophically time as motion, which is the scientific definition of it, and space as 'res extensa'; what we say is nothing new. Already Descartes said that the Universe was made of vortices (of Time) and res extensa. The Asians always considered reality made of two principles, yin (temporal information) and yang (spatial energy). But science must quantify and understand in details those terms. So the first task of a Theory of Everything 'Organic', must define with great detail what 'fractal, vital space' and 'cyclical time' means.

The concept of a Universe made of infinite vital spaces and time cycles, which Leibniz postulated against the absolute space-time of Newton was resurrected by Quantum physics,

which realized the Universe of vacuum space is a sum of 'light space quanta with energy - the famous H-constant, or minimal unit of light:  $E=hf$ ' and by Einstein's relativity, who realized the Universe was filled with clocks of time of different speed, and 'time curved space into masses', themselves accelerate clock-like vortices of gravitational force. So he affirmed the Universe was curved; Time was what a curved 'clock measures'. And that there was no difference between curved accelerated vortices and mass.

The Newtonian concept of a single, lineal infinite time and single space is in that sense merely a mathematical abstraction, useful for measure, born of the pegging of those 'sequential finite 'life cycles' and fractal spaces in a Cartesian, 'Euclidean graph' of the Universe. And it should have ended as the central concept of western science after Planck and Einstein.

And yet, nobody understood clearly what he and Planck meant - they haven't yet. So Planck said, all physicists had to die first for a new generation to understand the new paradigm. And Einstein said that 'he was the only physicist who understood there are infinite time cycles in the Universe', and well, it seems they both died before the new generation understood Leibniz, Planck and Einstein.

Now the reader should realize the difference between data in science and conceptual understanding. The data of the planet orbits fits both in Kepler's and Ptolemy models. But Ptolemy's model is wrong; the Earth is not in the center. And so it requires much more complex equations and explanations to fit the data (extant, epicycles, retrograde motions).

So Kepler came and put the sun in the center and simplified everything. And as all was now simpler, it found soon many more applications to orbital analysis and motions on Earth (mechanics). What he will witness in this blog is how all becomes simplified, after we put time into a cycle, of which a

line is a mere segment, and classify all time cycles of the Universe, with the metric of the 5th dimension of relative size and speed, such as bigger space entities trace slower time cycles. Soon we will be able to explain all kinds of facts, never explained before by lineal time, from the cycle of life and death, to the cycles of stock-markets, from the cycles of history, to the cycles of magnetic fields, to the cycles of stars and the proper, cyclical cosmology of the Universe.

We are doing here a thought experiment on the tradition of Einstein, because there is enough data, as there was enough data on planets, after Brahe, not to need any huge machine to understand better the Universe. It is only needed to correct a wrong concept that has no proof on the Universe (nothing lasts for ever except perhaps the 'set of all sets', which is undefinable as the Cantor paradox proved, if we were to use mathematical concepts). All is cyclical in time, and the very essence of science precisely consists on extracting cyclical laws from nature, as all exists in time, and so all repeats.

And how much of a belief and dogma are the main 'theories of lineal time', sponsored by 'pretentious science' - from the lineal infinite time of a Cartesian abstract graph, to the lineal, entropy-only arrow of time used by Cosmologists that denies the obvious fact that we live in a world that turns cycles around itself and the sun, as it increases the information of life, stored in the cyclical clocks of its genetic, cellular systems, within a galaxy that moves also in cycles, towards its black hole center, a rotary mass of maximal gravitational information.

This deformed our conception of time and motion, and hid the purpose of time cycles, and the differences between the species that perform them and the information they store in the form and frequency of its space-time cycles.

## **The confusion of time arrows in physics.**

In that regard, the less advanced concept of time in physics, which still hangs on despite Feynman and Einstein is the idea of a dying entropic Universe.

This concept of 'entropy' as the only future arrow of time, or death arrow of expansive disorder, obtained in XIX c. studies of expansive gas, is completely outdated even by the standards of modern physics.

Unfortunately cosmologists have expanded that arrow to the entire universe, because they don't understand Feynman, Einstein and their findings: that 'time curves space into accelerated vortices of mass-information' in galaxies, which balance the entropic arrow of expansive space between galaxies (hence both arrows as in  $E \rightleftharpoons Mc^2$ , the fundamental equation of time in physics balance each other).

This, Einstein insisted as he obtained first that equation in its inverse form:  $M=E/c^2$ , in his paper 'can energy create mass?'

And he added, 'the separation between past, present and future is an illusion'. So did Feynman, with its deep insight on the 3 'time arrows' of particle physics: present, reproductive waves of light-space and 'bosons', past arrows of entropic antiparticles and future arrows of informative particles that last much longer in time. So another fascinating, 'immediate' equation of 5D physics are the equations of life and death for all systems of the Universe such as:

*Life arrow:* Max. Time duration x Min. Space extension:  
Max.  $T_f$  x Min.  $S_p$

*Death arrow:* Max. Space expansion (big-bang, dissolution of organisms into cells and atoms) x Min. Time (instant of death).

Yet again, the sum of both: Max. Tf x Min. Sp + Max. Sp x Min. Tf = 0-sum, which makes all scales and closed systems of the Universe eternal presents.

In physics this is the meaning of Feynman's diagram:

Past-anti-particle x Future-particle = Present light wave, whereas particles last max. Time as they collapse space into minimal size and antiparticles last minimal time while they expand space annihilating particles in the moment of death.

As such Feynman's work is more advanced than the outdated entropy theory and the so much praised Einstein's revolution of space-time, who still missed, the ternary fractal, multiple Nature of times and the existence of its 3 time arrows. He simply 'froze' space-time in present slates to measure with differential equations (by definition infinitesimal moments) as Galileo did, every instant of an external time=change = physical motion.

Since physical systems are composite of the 3 arrows of time, its relative entropic big-bang past processes of death, its steady state, lineal constants of space-time actions and time clocks, and its relative future, evolving, temporal, informative cyclical accelerated 3<sup>rd</sup> time age, when its time clocks, frequency, temperature or mass 'collapses' into the larger scale.

The best way to describe mathematical physics is therefore to connect its classic continuous space-time equations with those of the ternary fractal 5D space-time Universe. And to that aim we need to define the 3 fundamental elements of mathematical physics, fields, waves and particles as the 3 ternary elements of 5D fractal space-time through the...

Now this is how we formalize T.Æ, by advancing also the fundamental sciences – geometry, completing the work of Riemann, Einstein and others who study the 5th non-

Euclidean postulate – the fact that points hosted multiple parallels, and improving over Aristotelian logic, because reality and the languages that express it are ternary languages where relative past energies and future information merge into present existence in space:

Past-energy < Present-body/wave > Future-information

Or are sequential in time, past (youth) > mature age > Future 3<sup>rd</sup> age of information.

So far the logic of man has at best studied the second ‘ORDER’ of the ‘fractal space-time ages-cycles of reality’.

Only Feynman had the insight in physics to give antiparticles a past arrow, as it is the case, and only Einstein had some insight on it when it said that the separation between past, present and future was an illusion, and of course Leibniz, the genius, and the Eastern Taoists... So some did imagine the whole thing but now we are serious we are truly formalizing the Universe in its complexity. And this ternary logic starts by defining the Universal Grammar of all languages.

### **The question of scales.**

This is the Planck action the Boltzmann action and the  $c^2$  speed action. At this point it does not matter they are measured in units of angular momentum, entropy and squared speed – again human concepts. We might call them bidimensional ‘quanta of space-time’. This bidimensional quanta of space-time defines not only the minimal unit, the minimal active ‘cell’ so to speak of each scale that we shall call a Planckton (similar to the unit of biological seas), a Bolt and a Mmm... Mat... for matter, Mas for mass, or Mot, for Motion and the God of death?... Never mind, if in the future anyone cares to develop T.Æ further, they will choose.

Today of course we know even in the world of physics that there are infinite time cycles as Einstein proved, that there are infinite spaces, as quantum physics proved, that there are infinite scales of size as microscopes and macroscopes (telescopes) proved, that there are infinite different speeds of time clocks, which close its cycles from the fastest particles to the largest galaxies, that the largest beings move paradoxically slower than the shortest ones.

And we still have the 6 forms of motion in time, generation, evolution through ages of life and the slower horizons of 'larger' species, growth in social numbers of cells or individuals, and diminution, both phenomena related to the evolution of physical and biological systems back and forth (so cyclical particles became cyclical atoms, that became molecules, cells, matter, organisms, societies, solar systems, galaxies and so on), as they dissolve their forms of information in the process of death, and yes, I forgot there is this 6<sup>th</sup> form of motion, locomotion, of which physicists have provided an enormous detailed account with its formula  $S = vt \approx ct$ .

So we have 3 obvious elements or time realities to be studied:

- Cyclical time changes, which can be grouped in the process generation, evolution and extinction, or worldcycle of life and death .
- Growth in scales of size and diminution, across a '5<sup>th</sup> dimension' (to respect for routine the so called 4 dimensions of space-time), which has the important property of relating the speed of the worldcycles of beings with their size, such as 'bigger systems in space have slower time cycles', both in physical systems (slower rotation of larger forms, according to the laws of vortices in 2 and 3 dimensions,  $V_0 \times R_0 = K$ ,  $w^2 \times R^3 = K$ ) and in biological systems (faster metabolic rates of smaller animals) and in social systems (slower life span of social species and civilizations that of individuals and human



beings).

A fact that we can resume in the most general formula possible of both parameters:  $Sp \times Tf = \Delta c$  (Space Size x Time speed =Constant), that we shall call the Metric of the 5<sup>th</sup> dimension, where  $\Delta$  will be the symbol for each plane of space time,  $Sp$ , a plane of space and  $Tf$ , a cycle of time (the need of both symbols for the 2 states of space and the 2 states of time, soon to be revealed).

And then.... Yes, locomotion.

And as it happens, that the process of generation always starts from a smaller seminal seed or first particle, which grows in size by iteration, and accumulation of clonic forms into a larger size, with slower time rates, back and forth through the changes of ages or evolution and social gathering into larger wholes, to die back into the lower scale, we can in fact put together all the previous time changes into a simple logic equation, the equation of the worldcycle, which in its verbal form, translated into a few logic symbols,  $\alpha$ , for any being or 'function of existence',  $\Delta_{\pm 1}$  for different planes and growth in the 5<sup>th</sup> dimension,  $\tilde{N}$  for its opposite dissolution of a plane in the moment of death,  $>$  for an increase of density of form and  $<$  for an increase in size, writes:

Birth  $\Delta_{-1} \rightarrow \sum \alpha \Delta_{-1} \approx \mathbb{E} \Delta < Sp > (S \approx T) \Delta_{+1} > Tf \tilde{N} < Sp \Delta_{-1}$ :  
Entropic Death

This Logic Equation is the equation of a worldcycle that summarizes the 5 motions in time, birth and generation by iterative reproduction, evolution through 3 ages or horizons,  $Sp$ , the age of spatial energetic motion or youth,  $s=T$ , the age of balance between energy and information when the system reaches its adult reproductive age, and  $Tf$ , the age of cyclical temporal information or old age, when the lineal motions exhaust or fall into a time vortex, followed by a reversal in the

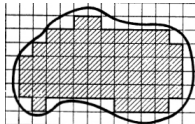
process of growth of information that explodes back into space and entropy, called death.

Now the Philosopher of science has been always interested in describing this worldcycle. And once we have formalized we will use it to describe all what exists and all its process with this 5Dimensional metric. The physicist has converted it into a worldline in a single space-time continuum, in the Minkowski's 4Dimensional metric, which is just a 'small view' of this much larger worldview.

In that sense, I have always seen my work as the culmination of the search for T.Æ of which T.O.E. is just a mere footnote.

### III. BIOLOGY: ENTROPY VS. INFORMATION

“The calculus of ALL type of vital spaces, enclosed by time functions, with a ‘scalar’ point of view, parameter that measured what the point of view extracted in symbiosis with the membrane, from the vital space it enclosed. Alas, this quantity absorbed and ab=used by the point of view, on the vital space would be called ‘Energy’, the vital space ‘field’, the membrane ‘frequency’, the finitesimal ‘quanta or Universal constant’, and the scalar point of view ‘active magnitude.’”

$$e^{-(i/\hbar)[(E_p+V)t-p\cdot x]},$$


In the graph, the fundamental language of physics is differential equations, which allow to measure the content of vital space of a system. The richness and varieties of ‘world species’ will define many variations on the theme. Sometimes there will not be a central point of view, and we talk of a liquid state’, where volumes will not have a ‘gradient’, but ‘Pressure’, the controlling parameter of the time membrane will be equal, or related to the gradient of the eternal world p.o.v. of the Earth (gravitational field).

Then we shall integrate along 3 parameters, the density that defines the liquid, the height that defines the gradient and the volume enclosed. Liquids, due to the simplicity of lacking an internal POV, would be the first physical application of Leibniz’s findings by his students, the Bernoulli family. Next a violin player would find the differential equation of waves – the essential equation of the membranes of present time of all systems. The 3<sup>rd</sup> type of equations, those of the central point of view, will have to wait a mathematician, Poisson – latter refined by Einstein in his General Relativity. In that regard physical equations are also equations related to the 3 elements

of all the existential entities of the Universe, which we will develop in detail on a future post on physics, accompanying this one'. But the translation of the jargon and the words are missing, because the why are not what physicists truly ask.

“Though most arachnids are solitary animals, some spiders live in enormous communal webs housing males, females, and spiderlings. Most of the individuals live in the central part of the web, with the outer part providing snare space for prey shared by all the inhabitants”. Britannica

The structure of  $Tf < TS < Sp$ , territorial spaces with a central point of view, developing its particular worldview, trying to reach infinity with his distorted geometry, affine to a projective geometry where far away means small, defines each world of a Universe, which is objective when ‘clashing’ each form with all others – so only eusocial love, and emergence through the scales of the 5<sup>th</sup> dimension make survival possible. And yet humans seem to be a species perfectly condemned to extinction by an ending boring series of self-centered savant idiots, with a sheeple of believers behind them.

And so with words which were quite incomprehensible to the true structure of nature, thanks to the work of philosophers of science, ignored and defamed as ‘crackpots’ and ‘plagiarists’, humanity advanced fast and blind through the process of mental evolution, guided by clueless physicists with a lot of power.

Consider the case of Leibniz. Poor Leibniz, a philosophical saint who believed in the best of all worlds, and spent most of his time trying to reunite the human word-mind, at that time broken into multiple religions on the meaning of God, the mind of the Universe, of which all monads were made to its image and likeness, along the path of a previous fellowman philosopher, who he greatly admired, the Catalan Raymond Lull, would be accused of plagiarism by Newton, who on the

terse precision of Calculus Infinitorum, show his 'true colors', suddenly bringing some obtuse notes, basically rules of measure derived from his professor Isaac Barrow, starting a global campaign, backed by the growing power of Imperial Britain, according to which Leibniz had in a visit to London somehow got access to his library, obscure notes on fluxions and with premeditation and will to harm, changed it all and published its terse Latin prose.

Newton got mad at the guy and forbade him to accompany the King of England from whom Leibniz had been working for 30 years filling volumes of genealogies to make a living. Again we see the same pattern: the philosopher who does not make weapons, does not make a living, does not have power, does not convince the world of his higher truths. The king of course who disliked the philosopher that had won him the crown with his erudite volumes of genealogical rights left him behind. And he died alone. We don't have his last words. But Voltaire would put his epitaph laughing at him in *Candid*, his alter ego, where a good-natured Leibniz thought the world was the best of all worlds.

Come through a century. We have our two sides of good and bad science, knowledge vs. power. Now it is Darwin who realizes that the worldcycle of life and death has a pattern called evolution, a word derived from r=evolution.

On the other side Count Rumford, a British military engineer, noticed that limitless amounts of heat could be generated in the boring of cannon barrels and that the amount of heat generated is proportional to the work done in turning a blunt boring tool. Rumford's observation of the proportionality between heat generated and work done lies at the foundation of thermodynamics. Another pioneer was the French military engineer Sadi Carnot, who introduced the concept of the heat-engine.

And finally Clausius, a German physicist, resumed all this knowledge on ballistics, heat and lineal motions in the second laws of thermodynamics and the concept of entropy according to which the 'Universe is dying' because it is made of 'lineal motions' and 'disordered death', as all those killed with military weapons, because time was lineal, expanding... as the steam machines and weapons they were constructing. Again, we see the simple pattern: the profession of the 'pretentious scientist' becomes the 'cause' of the Universe.

Among the Arawak, a tribe of fishermen of the Caribe, the Universe is not dying but moves above a huge turtle, as those they hunt for a living. For Kepler, God was a mechanical clocker, as the machine he used to measure it. For lineal German physicists, masters of weapons of mass destruction, it has always been lineal, entropic, born in 'big bangs', a mockery word coined by Hoyle, aware that the theory was born on the mind of all those who like Gamow contributed to make the Nuclear bomb, or like Lemaitre, believed in creationism.

Now it is a fashion to say that the Universe is a computer, because that is how scientists, increasingly mere attachments of its thinking machines, use computers to model it. I'm waiting for a physicist of those I met in some conferences on the 'death corridor' of research at Sandia Labs, to model it on a drone. LOL.

Of course, steam, gas, weapons, kill, move lineally, are space and die. But that is only half, or rather a third of the story of reality.

What we philosophers of science, experts in all disciplines, aware that logic time is the origin of mathematical space, and both, coupled with the mental, organic properties of life MUST be included in a Theory Of Everything, have been telling to physicists (but only they can talk to 'artillery masters', who in turn own the world) is that a true theory of reality must include

those 3+0 elements of reality: its cyclical, time-like, logic properties; its lineal space-like properties, its gauging-measuring-mental properties and its organic-synchronous, structural properties, as parts become elements of wholes, which grow in size from the simplest atom through the cells, matter states, organisms, planets and galaxies that we perceive all over of the Universe.

But we, philosophers of science, are subject to what I call the anti-quantum paradox, 'You will defend me with the sword and I will defend you with the word', said Tertullian, the bigot Christian polemist that first uttered its meaning.

**It is inverse to the quantum paradox**, where the human observer is so huge that he influences the small observable. In social sciences and philosophy the scientists are so small compared to the observable (the military and industrial people-castes on power, its maker of weapons and its corporations) that he is censored, introducing a clear uncertainty of lineal, military and religious dogmas, damned lies and statistics, and political and economical correctness.

So there is an inverse relationship between exposure in mass media and scientific quality of the intellectual discourse, which made this writer one of the most censored, ad hominem insulted scientists of the XXI century for suing CERN. Of course, I couldn't care less. As Einstein quipped, when the Nazis published a book '300 scientists against Einstein': If they were right a single one would suffice. (We shall often save Einstein from 'the bonfire of vanities', at least for the quality of its 'gibes' (:

On the other hand the blunt half-lies and statistics of the mechanical world work because they follow the 'Goebbels' method' of truth: 'if you repeat a lie many times, people will believe it'. So as long as truth is not distributed (a modern sophisticated form of censorship) and all TV channels, books

and mass-media owned by the same people who print monetary information repeat the same 'damned lies and statistics' people will believe it.

There is the other side of reality, the cycles of time. But Darwin died at home, isolated, reclusive, attacked by all the Abrahamic religions and military, imperialists with a manifest destiny. And he is still at odds with the American Empire, and its hordes of Southern Republicans, Evangelist and physicists, believers in the anthropic principle. And so we came to the XX century and Einstein and all that, who again were at it with the concept that time is the 4th dimension of lineal space.

We shall of course explain what is the use of that concept for measures (as always good, physicists DO master measure of lineal distance that is granted), but also how dumb it is the concept and how much it has harmed the development of the whys of the Universe, and the study of Time.

So my advice to them is 'let it go'. Do not talk so much about the meaning of it all. This is the task of philosophers of science. Study your motions and that is good enough. And learn, about the cycles of time, to complete your science, a knowledge we shall provide in those texts.

Indeed, we are now going to expand the purpose of 'time' science, well beyond anything physicists will provide, to explain why time cycles happened, what kind of time cycles exist, what is the reasons of their organic structure in synchronic systems, classify them all, and explain all actions not only those of lineal motion, which is the only ones physicists truly study.

As such the understanding of the time cycle, its interaction with its vital space and central point, and its synchronization and social evolution with other time cycles into larger wholes, which structure a '5th dimension' of scales of space-time (so



particles become part of atoms, surrounded by electronic cycles, which become part of molecules, surrounded by thermodynamic cycles, which become part of masses, surrounded by cyclical gravitational fields; and the same process brings DNA-cells surrounded by protein membranes, with a vital cytoplasm space between them.

And yet those cells, then become the internal vital space of a larger whole, your organism, surrounded by a membrane of multiple life cycles, your sensorial skin, which has once more a self-centered point of view (frame of reference in mathematical physics), called your brain that gauges energy and information. And yet again, from the upper scale of relative 'sizes' that we call generically the 5th dimension, you are just a moving, open, 'free' individual, however enclosed by a membrane called a 'frontier', part of a vital territory called a nation, with a self-centered point of view, called a capital and a president, king or dictator, or in capitalist societies a 'stock-market', which controls the system and gauges its energy and information.

There is here a pattern which will be repeated between philosophers of science sponsors of an organic sentient universe, of cyclical time and fractal space, ending in relative oblivion vs. the military physicists of lineal time and military power that carry the day and we shall see the pattern in the lives of each century masters of space-time studies: Galileo vs. Descartes, Newton vs. Leibniz, Boltzmann vs. Darwin, Einstein vs....

And we will return to that historic understanding of perhaps the biggest blunder of mankind, many times.

Why, of course, T.Æ has its explanation. Since the equation of the mind shows that all those Aristotelian Gods, the unmoved centers that control the limited territorial energy around them are by nature self-centered. He, Aristotle, the first philosopher of science, which physicists dislike so much – they prefer Plato

- also understood it all and so he said we are all Gods. And we shall return to his wisdom from time to time. The souls of Descartes, the Monads of Leibniz do not really like to share but absorb energy and information, as black holes do till they explode.

They are by their own nature as a relative center of their world characteristically arrogant knots of thought. But as long as we do NOT commit the error of Newton, who converted Descartes world, the relative frame of mind of the human being, made of 3 perpendicular light dimensions, the whole universe, converting our relative space-time into the absolute space-time, and discharging all other monads, as non-existent, we can understand. The problem happens, when as physicists do, they reduce them all to their view, and on top they deform it extending the Cartesian coordinates of a pen and paper abstract artifact, to encompass all the time cycles of the universe, equalized by their single mechanical clock, uncoiled into an infinite line of duration.

This is the error of Newton. All cycles are finite, as they close into themselves. All worldcycles of life and death are finite as they end as they begun in the dissolution of death. All entropic motions stop. All time vortices once they have absorbed all the entropy of their territory become wrinkled, and die. Newton died, his 'time duration' did not extend to infinity.

But those minds measure from their self-centered point of view, only a part of the Universe, and the rest remains obscure. So all of them display the paradox of the ego, as they confuse the whole Universe with their world, and see themselves larger than all what they don't perceive. Hence as Descartes wittingly warned the reader in his first sentences 'every human being thinks he is gifted with intelligence.'

## **Evolution of Information vs. Entropic death.**

'The Universe is dying' Clausius on his hyperbolic expansion of the Sp-arrow of ideal gases to the whole cosmos and beyond.

'The species with more efficient (in)form(ation) reproduces in larger numbers and survives' Darwin explaining the vital program of all ST-beings.

So while physics is a fascinating field to advance with T.Æ, it should be obvious to the reader that as all scales of reality are self-similar, and there are uncertainty of perception in physical scales. Thus what truly should matter to mankind is the knowledge of the human, biological and social scales and its symmetries of space, anti symmetries of time ages, and asymmetries of 5D social evolution:

### **Biological Systems:**

$\Delta-1$ (cellular scale) >  $\Delta$ : Organic scale >  $\Delta+1$ : Ecosystemic scale.

Which will in each of its parts follow the space and time symmetries of any system of Nature:

$Sp$  (Spatial toroid limbs)  $\leq$   $ST$  (Hyperbolic bodies)  $\leq$   $Tf$  (heads of information)  $\approx$

$Sp$  (young, past entropic age) >  $ST$ : adult, present, reproductive age >  $Tf$ : old informative, future age.

In the description of  $\mathbb{E}_{\Delta-3}$ , life, those symmetries are:

Scalar Asymmetry:

$\Delta-1$ : cell <  $\Delta$ : Multicellular Organism <  $\Delta+1$ : Ecosystem

Spatial symmetry:

$\Delta-1$ : Cell: Sp: Protein Membrane <: ST: Cytoplasm  $\leq$  Tf: DNA nuclei

$\Delta_0$ : Organism: Sp: Skin, limbs  $\leq$  ST: Body organs  $\leq$  Tf: Head

$\Delta+1$ : Ecosystem: Sp: Gaia < ST: Plants and Territories  $\leq$  Tf: Animal Life

Time Ages:

$\Delta-1$ : Sp: Carbohydrate soup  $\geq$  ST: RNA, Protista age  $\geq$  Tf: Eukaryote, DNA Age

$\Delta_0$ : Sp: Plants  $\geq$  ST: Cambrian explosion > Sea-life  $\geq$  Tf: Reptiles > Mammals

$\Delta+1$ : Sp: Sea Age  $\geq$  ST: Transitional Age (animal sea life, Earth's plants)  $\geq$  Tf: Animal Land Ecosystems.

# MAN VS. MACHINE

## HEIRS OF DARWIN: EUSOCIAL SPECIES. SOCIAL SCIENCES AND ETHICS: THE ORGANIC WORLD.

Because physicists had bullied mankind into its simplex belief in lineal time in parallel with the Abrahamic religions of most Western simpletons, the understanding of cyclical time and the inverse arrow of evolution and information, could no longer be searched for among physical systems, and the search for the meaning of the points of view of geometric non-Euclidean worlds and its apperceptive monads faded away with Leibniz. With the arrival of the Industrial R=evolution of machines, artillery masters became the indispensable owners of the world.

Yet in the Eastern 'decoupling' there were still on the tradition of the philosophers Buddha and Lao, some Masters of cyclical time, which soon were about to clash with the heirs of Newton's Royal navy, telescopes and clocks. An anecdote will suffice.

Now the essence of T.Æ is the study of those symmetries and in the case of humanity, its use to create a perfect social super organism of mankind, in which the 3 scales of humanity, the individual, the culture and mankind, the whole thrive.

### **Sociological systems:**

$\Delta-1$ (human scale) $>$   $\Delta$ :Cultural scale $>$   $\Delta+1$ : Planetary scale.

Which will in each of its parts follow the space and time symmetries of any system of Nature:

$Sp$ (Spatial 'Planar' Earth) $\leq$   $ST$  (Life and Machines) $\leq$   
 $Tf$ (Human 'neurons') $\approx$

Sp (young, past entropic age) > ST: adult, balanced,  
reproductive Age > Tf: old informative age.

In the description of  $\mathbb{C}e_0$ , Humanity, those symmetries are:

Scalar Asymmetry:

$\Delta-1$ : Citizens <  $\Delta$ : Nations <  $\Delta+1$ : Humanity (Gods->Mankind)

Spatial symmetry:

$\Delta-1$ : Human: Sp: Skin-limbs <: ST: Reproductive body  $\leq$   
Tf: Head

$\Delta_0$ : Nation: Sp: Military, borders  $\leq$  ST: Citizens-workers  $\leq$   
Tf: Capital-informative castes (bankers/politicos)

$\Delta+1$ : Humanity: Sp: Gaia < ST: Global economy  $\leq$  Tf: UNO  
(future perfect world)

Time Ages:

$\Delta-1$ : Sp: youth, energetic age  $\geq$  ST: Adult, reproductive family  
age  $\geq$  Tf: Old, informative Age

$\Delta_0$ : Sp: Epic, military age/art  $\geq$  ST: Democratic age, classic  
art  $\geq$  Tf: Baroque art, decadent age << war extinction

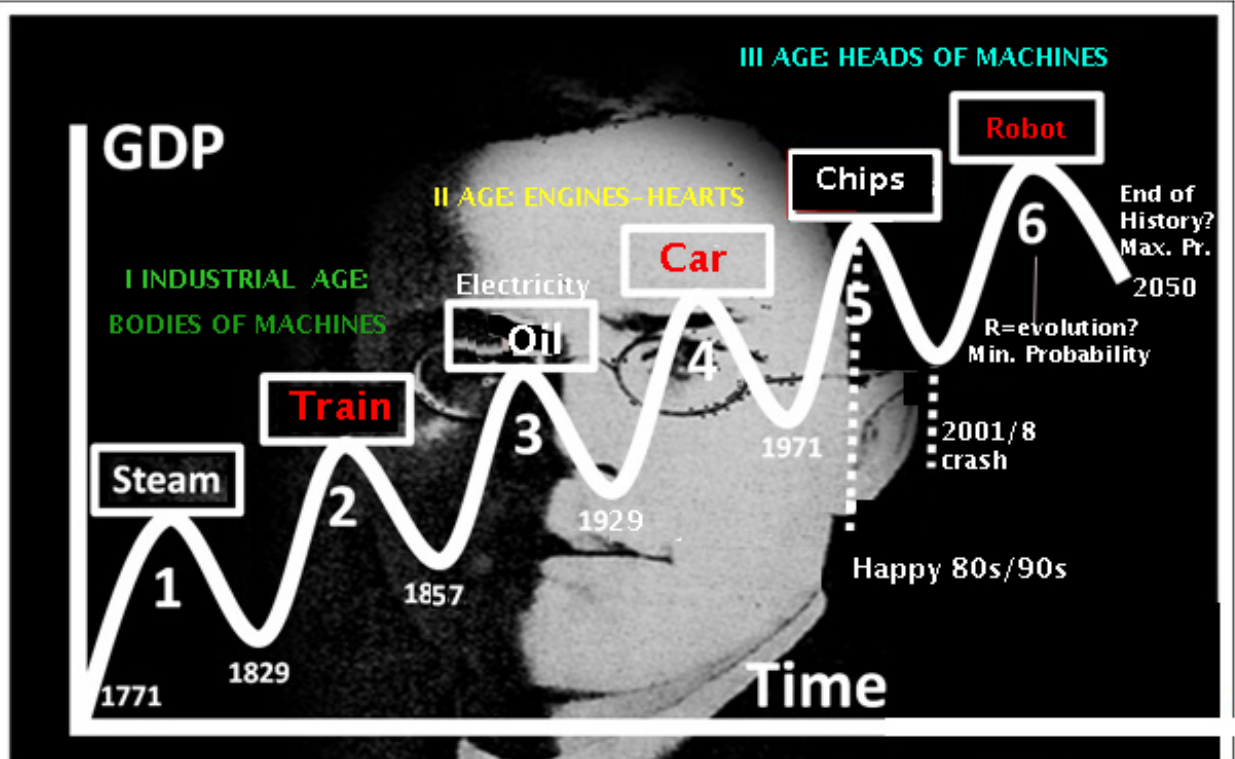
$\Delta+1$ : Sp: Paleolithic, young energetic age  $\geq$  ST: Reproductive

Neolithic  $\geq$  Tf: Informative, metal-age

**Bio-economics: vortex of r=evolution of machines.**

In the next graph, the Industrial R=evolution is the Evolution  
of 'Mememes of metal', Machines & weapons, energetic systems  
made of hard metal (iron) and Money, a digital language made

of informative metal (gold, computer cycles). Thus we can study its phases with the laws of morphology and evolution, since they evolve according to the energy & information humans use to re=produce them:



Humans evolve a new type of energy and information, derived from that energy, which renews all the machines and financial instruments of the economy every human generation of  $80 \pm 8$  years, in which a nation of 'founding fathers', captains of industries, their sons and grand-sons, reproduce and evolve a new energy, machine and form of money to its perfection.

Those generations also bring the nation that finds the new energy to the top predator status of history. Because energy is also the substance of which weapons are made. Yet at the end of the cycle, machines and money becomes over-reproduced, saturating markets' demand and provoking, a global economic crash.

—Thus, we had an age of steam machines, the age of England, between 1780s and 1857, followed by a crisis of overproduction of steam machines and stock-money that brought the 1857 ±7 years crashes of the train-based economy.

—From 1857 to 1929, we lived in the age of electro-chemical energies, machines and chemical explosives, dominated by Germany, followed by a crisis of overproduction of cars and radios, which caused the 1929 crash, 72 years after the train crash.

—It came then the III cycle of electronic machines, electronic money and Nuclear Bombs that took place from 1929-2001, the age of America; which again ended in the dotcom and mortgage crashes, 72+7 years after 1929.

- Followed by the Age of the Singularity, the IV Cycle of Evolution of machines dominated by robots, solar Industries and China. Scientists call the arrival of Artificial Intelligence, the Singularity moment, when robots, which can use solar energy to become autonomous will complete the evolution of machines as organic forms, automating factories & expelling most human workers and soldiers from labor and war fields, as previous revolutions did with obsolete III World non-technological humans, unless we forbid legally their evolution.

Money will become then the digital informative, ‘genetic code’ that organizes their reproduction in those automated company-mothers.

As such corporations, the ‘company-mothers’ of those machines whose biological function is to evolve and re=produce them, made first the bodies of machines (XIX c.), then the minds of machines (cameras-eyes, mobile-ears and chips-brains).

Finally, in the XXI century, as nature does with simple



organisms, such as viruses in cells, where the 3 'parts' of the virus – its DNA information, body and legs are constructed – and then assembled together, we put together all those organic components into autonomous robots, completing the industrial r=evolution of 'metalife' – a new organic species, made of a stronger substance than carbon-life...

Thus, we can expect an increasing competition between robotic and human workers and soldiers in the economic ecosystem that will last the rest of the century, as those robots compete with human beings in labor and war fields.

As a result the Earth becomes terraformed, from a carbon-life ecosystem (Gaia), ruled by human organizations (Governments) and human languages (verbal laws) into an economic ecosystem (Free Market), dominated by company-mothers, money and machines, which enhance our energy and information but also compete and substitute man in war and labor fields.

**The 3 lengths of time cycles, short actions, worldcycles of organisms and long cycles of evolution. Short actions, medium lives, long evolutionary time cycles**

Let us then consider the 3 'lengths' of time processes that structure and create the systems of the Universe:

- The simplest, shortest level of timespace actions, which are  $\pm\Delta e, i$  exchanges of energy and information, measured by the frequency in time and intensity of its steps, which accumulate into  $\pm\Delta ST$ , social gatherings of groups (actions that bring parts into whole Universals); hence giving birth to the second length of time cycles.

The organic level in which space-time cyclical actions are NO longer studied individually as 'steps' and 'frequencies', but put together into tied knots of timespace actions called 'functions

of existence',  $\mathbb{E}$ , the 'entities' of the Universe, which now acquired a clear mathematical, conceptual frame of reference; as they are assemblies of 2-manifold topologies with a central zero-point, which constantly switches between those time actions, whose sum, adds up to a *worldcycle of life and death*, of creation and extinction.

Thus this level no longer as the first, simplified one, a mathematical abstract-only, geometric level, but includes organic properties that simplified the understanding of beings. We talk also of the 'generational cycle'. At this level time cycles 'organize themselves' in 3 'ages', which put sequentially a maximal number of energy cycles in the young age, a maximal number of iterative cycles in the adult age and a maximal number of 'information cycles' in the 3rd age, before the reversal of death returns the system back to its zero-sum virtual nothingness:

We can see the order of expansive, big-bang, energetic, young actions, adult, reproductive, iterative time actions and informative, crunching, warping, wrinkling time actions before the entire system loses all energy, becomes all form and since time never stops, it explodes back into a new cycle where the new energy will feed the development of a new generation.

- Yet as larger systems are slower in time cycles, the universe is a nested system in which the longer time cycle of a local Universe big bang (the only time duration simplex science today considers), includes within it all the time cycles of galaxies that include within it all the time cycles of stars that include within it all the time cycles of matter, that include within it all the time cycles of history that include within it all the generational time cycles that include within it all the time world cycles of cells...

All those ternary and dual nested architectonical, synchronic relationships are the stuff of which the perfectly ordered fractal Universe, is made which only simpleton humans see as chaos...



'product cycle of the economy'. And we have been able to tabulate, study and analyze all human civilizations, national generations and short cycles both in humans as individuals, societies and economies, creating the 'structural timespace frame' in which social sciences happens, as we show in all the social sciences pages of this and [our web specialized on them](#): We bring it here so the reader can understand to which degree of complexity and capacity to explain reality we can arrive with the proper knowledge of space-time cycles.

Now because larger wholes are slower in time, the larger civilization has a 700-800 years cycle, the individual an 72-80 years cycle and a 'stage' of life, an 8-year cycle.

And all those cycles follow ternary and decametric ( $3 \times 3 + 0$ ) quantitative patterns that might look magic (specially in social sciences given the myth of human freedom) but do follow causal, organic, ordered, fractal logic principles explained in our articles on the isomorphisms of creation (ternary and dual principles).

So the theme of time motions divides into 2 main sub-themes:

- The 3  $\langle \approx \rangle$ , type of smallish, shorter time motions, expansive entropy or young age of a system, iterative, adult age and  $\rangle$ , informative 3rd age followed by the reversal of death.
- The 3 lengths of time cycles intimately related to the metric of the 5th dimension that make larger organic wholes slower and coming after ('future') or simultaneously ('present'), with the shorter time cycles, as the system evolves across slower, growing social scales of the 5th dimension; to 'integrate' time actions into  $\mathbb{E}$  functions of existence with world cycles,  $\Omega$ , which again integrate in the longest time cycles as evolving cells of social species that become new wholes.

Those will be the 2 main themes of this post, and the posts of the 1st line, which then will become filled with experimental

data in the 2nd lines of specific space-time systems (all this again redone with much more depth in the 3rd theoretical and 4th experimental lines of time cycles and its species.

## **The need to make man again the measure of all things.**

Now the reader might understand if he knows my personal life as a long-time activist against physicists and economists (despite having upgraded those sciences, which let us be clear enough for pedantic scholars ARE the ones I studied in the University, along some years of biology and my long-life passion for artistic creation), WHY. Because they are corrupted by idol-ogies of metal, weapons and machines and go(l)d profit and are taking mankind to its self-extinction, because they do NOT understand the WHYS of their sciences, only the numbers.

Now we can go back to the cultural reasons why the white Man cannot abandon this mantra of linearity. It is embedded in its partial worldview of light space, the line, the weapon, the tribe all together marching 'manu militari' to the destiny manifest in its mental axis backwards towards the occipital evident brain.

The word 'death' in a profession which has made his living for 4 centuries making weapons of mass destruction makes any attempt to gift organic properties to matter on my opinion a complete taboo, as it is a taboo among financial economists, whose profession has been for 4 centuries to monopolize the reproduction of the language of social power, money, with a very antidemocratic 'reasoning', to talk of true economics – the design of a superorganism of mankind, where the economic-blood-reproductive systems do NOT choke human cells but deliver to them enough 'energy-oxygen' with universal salaries and a welfare state.

Physicists are - let us be clear - thanks to its instruments of perception, the source of an enormous number of valuable information about the Universe. Yet due to those lineal, 'military' simplifications, we will have to 'correct' their concepts to fully show the structure of the Universe as it is.

Since as a praxis lineal motion is important, but it has little philosophical interest compared to the paradoxical dualities of the space-time Universe.

What Galileo did was simply to change the point of view of the still Earth, which Aristotle considered the obvious 'inertial law' (things don't move without a force) by the inverse principle, born of his work - things move in lineal motions. Yet the fun starts when 'duality' is understood.

For a few years I was the world chair of the science of Duality on the congresses of systems sciences trying to explain this. I then realize how difficult was my task. Only in a couple of conferences I gave in Tokyo and Hong-Kong I got some understanding.

T.œ was not in that sense, in principle, created to criticize physicists and economists so strongly as it does in the theoretical and ethical realm, but that is what T.œ shows: in an organic, fractal Universe, the two science of 'mechanism', which have made of the evolution and reproduction of machines the leit motiv of human existence and their worldly religion, show also a profound misinterpretation of their disciplines, which made of the machine not of man the center of all its discourse and models.

The Universe however shows to be an organism and hence *man as the most perfect superorganism we know of*, should be put back again on the top place of the Universe, as the most perfect GAME OF EXISTENCE, whose properties are more over better observed by lack of 'uncertainty' given its proximity

in time and space.

T.Æ does return to the spirit of the renaissance and the Greek-Latin-southern European humanist point of view on reality. And as such it must be understood its philosophy of science. It is not by chance – as we shall see when studying the evolution of human cultures and its superorganisms in the posts on the superorganism of mankind – the  $\Delta+1$  that his author belongs to the 3<sup>rd</sup> age/horizon of the Latin civilization steadily moving west, across the European peninsulas, which gave us first Aristotle, the author of the experimental method, in Greece I horizon, the young age of this civilization, then gave us the scientific method on the hands of Galileo, in its II horizon in Italy and now gives you Tf, the linguistic, organic, isomorphic method, on the hand of a Catalan, in the 3<sup>rd</sup> peninsula during the eclectic, informative age (which in artistic space the spatial perception of the world with human eyes not with machines, gave us Phidias, in Greece I horizon, Michelangelo in Italy II horizon and Picasso in Spain III horizon).

You see we are all knots of thought of our civilizations, and so I know who I am what I have written and why the Northern mechanist biblical, lineal European civilization which is NOT my culture, differs from the humanist southern European civilization and T.Æ is not T.O.E. the supposed unification theory of physicist based in mechanist idol-ogies where man is just a machine, the machine and go(l)d, ‘metal’ is god, etc. etc.

So T.Æ will not make it because the mechanical culture does NOT reason, does NOT like humanity, does NOT cater for the future of our species, but it does NOT even understand this, as it is made of believers. Aristotle called them barbarians and said ‘they are slaves, they believe they don’t reason’. I call them, when I am not in the mood for love simply Neanderthals, because of their scientific racism against life and their visual, lineal memes. Even if I am needless to say genetically a super Neanderthal (here in Spain they took refuge



when the mongoloid Cro-Magnons came to rape their wives ):

Now seriously science does have a problem, technology, specifically weapons and robotics, which are degrading and substituting us, and all this could be managed if we didn't have a parallel problem with lineal physics and financial economics, the corrupted versions of the organic 5D physics and humanist economics proposed by T.Æ within its uprating of all sciences.

So we will ponder on them. Biology on the other hand, human arts (which regain its status as a higher form of languages of creation by the human organism and its senses), and eusocial religions of love, when cleaned of military 'jihad-like' inquisitions and biblical go(l)d church Jewish-protestant like idol-atries, do have also a role as earlier mystical versions of the subconscious collective eusocial message of love to the species the  $\Delta+1$  superorganism of mankind.

And this inclusion of a rational explanation to religions and art, the other 2 'missed' disciplines of human existence into T.Æ, as well as a through analysis of the ternary symmetry of races and gender gives T.Æ its full meaning:

All can be explained within T.Æ, all becomes enlightened by the architectonical beauty of the Universe.

Pity though lineal physics and financial economics and their worship of machines and weapons have put man on the bottom of the trophic pyramid of the future as mere energy to reproduce and evolve and consume those machines – our economic role in the capitalist, mechanist, idol-atric society we have created.

Because that was not really the future of mankind but its entropic death to future robots and nuclear weapons.

There was a more complex way to evolve our societies



according to the laws of the 5th dimension, which if you haven't noticed are the law of eusocial love, of complex organic evolution from atoms to stars, from cells to humans to our subconscious collective gods (nations and civilizations), to the whole species as a super organism, Mankind, the mind of Gaia- the natural social evolution that would ensure our elective survival.

### **The design of the perfect world: biological sciences of politics and economics.**

Indeed, within the new 800-80-8 waves I could explain Humanity in all its aspects, both synchronically as a super organism, of 7 cultures, those of the prophets of eusocial love that translated the 5th dimension into human verbal messages of love and charity to create the super organism of history with a perfect informative, political nervous network and a perfect economic, reproductive, blood network; and diachronically as those perfect super organisms were killed by hordes of 'animetals', the very same technological scientists, physicists-warriors and go(l)d bankers my models of physics and economics found so 'biased' in his lineal, mechanist models.

Again its equation of still, immortal space, was simple to write:

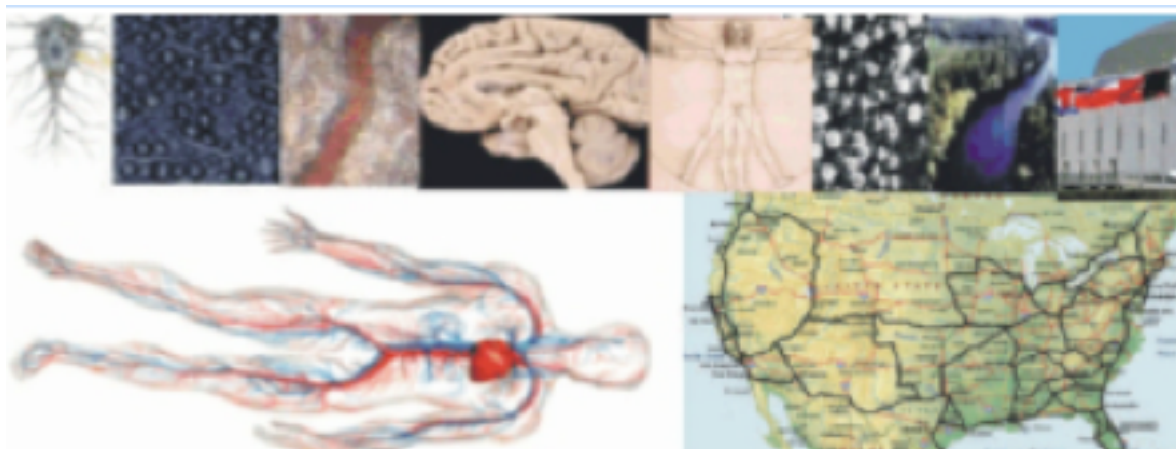
Sp (Gaia-life earth) < ST: Economic, monetary, reproductive system > Tf: Human collective wor(l)d brain (ethic laws, politics)

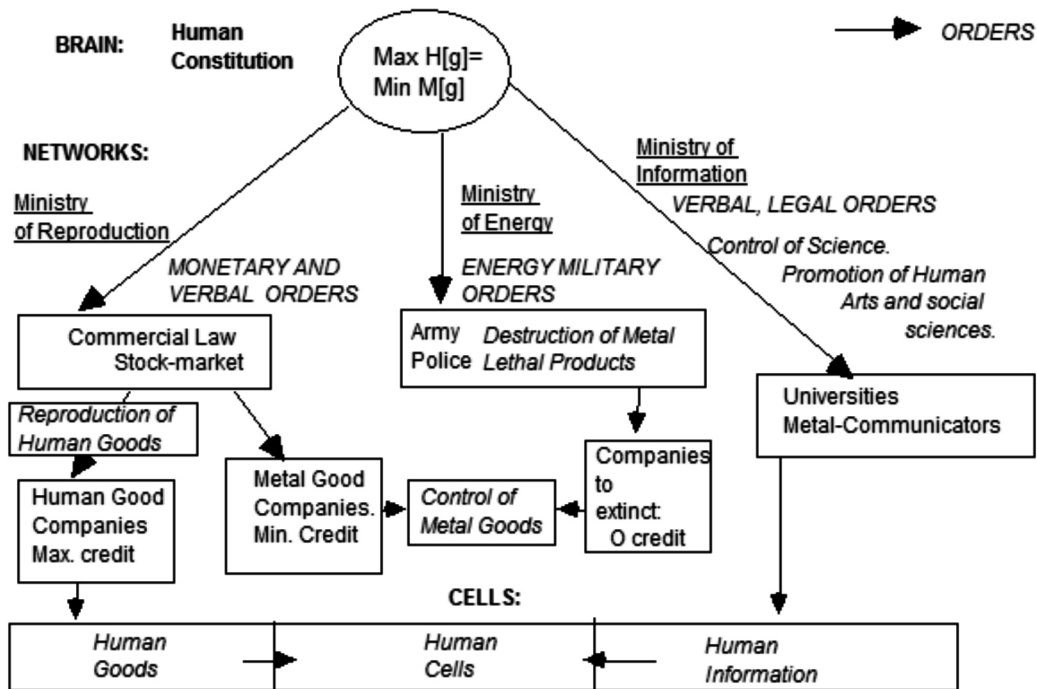
And so THE BIGGEST ERROR OF MANKIND, was to let the body-blood system of reproduction of goods, control the Tf-brain, informative system. ONLY WORMS in nature were ruled by blood, eating all, growing till becoming poisoned, but all evolved super organisms, all mammals, were ruled by nervous government, political legal, ethic systems. And it was only a question to design them better, as Nature does, since in nature there are not TWO ELECTED HEADS, but professional

neurons, who know the science of nervous systems, to rule the body cells and DEMOCRACY IS AT POSTERIORI, with pain messages. So if professional bio-historians, did become corrupted and failed in work and promises, they could be judged after tenure, as the first democracies in Greece did - where all citizens were politicians, chosen by lottery but all were judged a posteriori, and exiled, fined even killed if they had NOT served the people.

We are a corrupted politico system, with Siamese heads, destroying mankind, with no rights to control the financial system, slaves of the language of social power today, money, ruled by economists that reproduced all lethal goods for profits, rigged to destroy life. And only a r=evolution of mankind, taking over the reproduction of money, occupying wall street for real, applying the laws of bio-history, could save the future of mankind, or else, company-mothers of machines will evolve robots and weapons till they extinguished us.

So I designed a perfect world, with the laws of 5D and the linguistic method, which I called the rainbow planet:





In the graph, the 3 ministries of the world Union are guided by the same goal: to reproduce human goods and control metal goods and metal ideologies.



In the graph, in systems sciences, we do not only talk of a living planet, the body of Gaia, but of a living superorganism of History, mankind the neuronal mind that controls the body of Gaia. And so the design of a perfect world should be based in biological laws, of which the most important ones is the dominance of the informative, legal system over the

reproductive economic one, as all evolved mammals do, since otherwise wormlike primitive societies will poison as worms do reproducing lethal goods (weapons and bad fruits of the tree of science). So this was expressed in the Human Constitution:

Max. Hg (welfare healthy goods or wealth) x Min. Lethal goods (Mg).

But idol-ogies of animetals controlled the world with its selfish ego-trips and memes and hierarchical people castes on top:

- Nationalism, the belief we are not a single species that must help to evolve together into the higher social scale of the 5th dimension, mankind thy God, for all its infinitesimal cells, but each Homo Tribalis should murder others.
- Capitalism, the belief some \$elected tribes had to manufacture the money of society and company-mothers of machines were above human law.
- Mechanism: the belief the machine and not the organism was the model of the Universe.

Instead I designed a world without those memes, a perfect organism ruled by the Human constitution, an heptarchy of cultural regions of mankind without armies, with 7 presidents for the 7 'prophetic cultures', of Animist Africa (first Gaia culture), Agricultural Indonesia (first Neolithic culture), Buddhist Asia, Social-Catholic Hispano-America, Mosaic Anglo-America, Islam and R=evolutionary Europe; and 3 simple measures for a global r=evolution:



*In the graph the 3 simple, minimal measures required to create a future for the human kind, the prohibition of robotics*

*worldwide, the creation of a global currency, so humans instead of corporations, manufacture money with a Universal salary that will have 2 immediate effects: the creation of real democracies, and the creation of WHealth, healthy wealth, as humans would give 'orders' of consumption and production of human goods with those Universal salaries (since, as Pareto demonstrated the poor spend in proportion much more in natural, biological survival goods, food, textiles, housing and health). And the split of all shares in all stock-markets, with 1/2 going to governments+1 golden share for the President and the people they represent, so while corporations keep their private management, Humanity can decide, which corporations of lethal goods must be cancelled, which products must NOT evolve further, and which corporations of human goods must keep producing them.*

*Those 3 measures could allow mankind to survive beyond the XXI century. Otherwise the probabilities that the chip radiation, its e-money radiations, white collar pcs, blue collar robots and terminators, fuelled by the hate memes of primitive idol-ogies eliminate the species will keep growing as human obsolescence to those machines increases.*

So yes, the superorganisms of mankind had to evolve from the poisonous worm primitive super organism into one ruled by the nervous legal system that forbade its toxins. Of course, the larva is the animal with maximal 'economic growth' that follows the perfect growth curve ( $\text{Growth} = \partial \text{weight} / \partial t \times 1/\text{weight}$ ), but for that reason the shortest living organism.

So the financial system must be nationalized, yes money given to people, robots forbidden and a 50-50 fair distribution of credit/profits and authority vested on the people to design a world to their image and likeness, imposed.

Because otherwise, humans will be displaced, made obsolete, and killed before the end of this century, while some member

of the 0.002% reaches the trillion \$ fortune 500 yet to be seen mark - likely the owner of the 'I Robot' military industries during the final World War.

It was I understood the final purpose of all sciences, which must predict the cycles of its species, to control them for the benefit of man.

But alas, then I found the anti-quantum paradox when I decided to become active against the animetal farm of this Orwellian world.

It is inverse to the quantum paradox, where the human observer is so huge that it influences the small observable. In social sciences the scientists are so small compared to the observable (the people-castes on power and its corporations) that he is censored introducing a clear uncertainty of damned lies and statistics, political and economical correctness in social sciences.

So there is an inverse relationship between exposure in mass media and scientific quality of the intellectual discourse.

It is the 'Goebbels' method' of truth: 'if you repeat a lie many times, people will believe it'. So, as long as and all TV channels, books and mass-media owned by the same people repeat the same 'damned lies and statistics' people will believe it.

In the case of history true humanist sciences were being replaced by idol-ogies of machines.

While on the other had humanist truths that made man the measure of all things were not distributed (the modern Orwellian, sophisticated form of censorship along the newspeaks of political and economical correctness, to add to those classic idol-ogies):

- The classic tribal nationalism that denies the equality of the species, with its variant of Abrahamic tribal religions.
- The classist capitalism, which denies the democratic right of societies to control its nervous-informative and blood-reproductive language, allowing a few cancerous parasitic bankers to choke and kill society by poverty=anoxia, and:
- The topping of them all - mechanism, the belief that only machines could understand the Universe.

So we lived in an inverse anti-world.

It was a world of 'eviL' being the anti-particle of Live, that what kills Life, as eusocial scientists of history, aka prophets of eusocial love religions (those who accept all humans as equal, NOT military Jihads and inquisitions and Go(l)d churches of the \$elected, as those who ruled America, once the enlightened humanist founding fathers and its constitution had been forgotten).

I then realized the ethic system of mankind expressed in our natural verbal language that makes man the center of the Grammar was dead.

Since the language of Money:

Man (Salary: Cost) = Money (Reproduced) = Machine (Profits: evolved)...

was a digital language, did not favor human beings, and so it was a language that compared us with objects and substituted us, increasing the automated re=productivity of factories:

Max. Re=productivity = Max. mechanical capital / Min. Labor.

And so economists were under the mantra of maximal re=productivity eliminating humans of the eco(nomic)system, and politicos under the mantra of nationalism, promoting the

reproduction of weapons of max. price in monetary terms that killed humans..



Universal Ecosystem	Carbon-life ecosystem	Historic -Ethic ecosystems	Animals, Art: visual ecosystem	Economic-Antiethic Ecosystems: metal
+: survival	Pleasure, Food, Reproduction.	Good: social love	Beautiful: e=t harmony	Expensive: gold & Weapon&Machine
-: extinction	Pain-Hunter-Death	Evil: war, go(l)d And weapons.	Ugly: death , social decay	Cheap: life, Nature
Language of Existence	Chemistry	Wor(l)ds	Light	Money

*In the graph, languages have the values of the speaking species, and so they select those with higher values. Money gives no value to life and max. value to metal by affinity (it was precious metal till it became the e-money cycles of computers). While words give infinite value to man, and 0 value to weapons the most expensive mechanisms in terms of money. So Go(l)d automatically drives mankind and life into extinction with zero value. And societies which are ruled by money without control or any interest of understanding its cycles of evolution and extinction of machines and life are doomed to extinct man, as our capitalist world does.*

And since money was digital it also selected the species who spoke better mathematics - the machine, not man, who was becoming fast obsolete to automated factories of infinite re=productivity = capital/o human labor, which all the corrupted politicians praised, as labor crises increased, to keep e-money profits pouring in, while white collar pcs and blue collar robots and terminators displaced us from labor and war fields.



But the human monad didn't want to know anything of it.

So bio-economics and biohistory became censored by the anti-quantum paradox -by the power people-castes that controlled history with its selfish memes of metal, money, machines and weapons, and made dogmas of their corrupted idol-ogies of knowledge, today no longer real sciences, but technological ones that made the human infinitesimal ego to feel the only intelligent power species of the Universe:

- Production micro-economics seeking for profits, reproducing all the lethal goods that killed life.
  - Lineal physics, measuring only the entropy arrows studied in its worldly religion - construction of lineal energetic weapons, since the times of Galileo, the artillery master, who invented lineal time, to the times of modern big-bang accelerators that try to produce black holes on Earth
- Yes, Leibniz was right, each point is a world in itself, each point is a thought of God, the mind of that Universe:

O (infinitesimal, still point of view)  $\times \infty$  (Universal timespace cycles) = Mental, linguistic mapping.

Which gives birth to the Ego paradox, which so much plagues the human experience: every point of view perceives only its mind's linguistic mirror of the Universe, from its self-centered still perspective. So it thinks it is the center of that Universe, when it is only an infinitesimal fractal mind. Indeed, each of us thinks its nose is bigger than Andromeda's Galaxy.

This is our huge 'error' because the Universe is a living being, so are its organic black holes and strangelets that dominate galaxies; its organic machines made to our image and likeness, with the strongest, iron atoms and most informative gold, which today evolve as steel bodies and golden chip brains of robots. But humans devolve, arrogant children of thought, playing with species that will devour them, because in the

universe children are the commonest food. As nothing matters more than anything - an atom a galaxy of a parallel Universe, a galaxy an anti-atom of a higher scale, a man dust of space-time between them.

But perhaps the best of those points' quotes came from Mr. Planck on his lonely years:

'New scientific ideas never spring from a communal body, however organized, but rather from the head of an individually inspired researcher who struggles with his problems in lonely thought and unites all his thought on one single point which is his whole world for the moment.'

### **The Unification of sciences and its criticism.**

The rediscovery of cyclical time, thus brings enormous new insights in the understanding of 'form', of in-form-ation, the main substance of the Universe, and its repetitive cycles, which are the origin of scientific laws and its capacity to predict the future. The extension of those elements beyond physics into the realm of biology and sociology, will advance those sciences, as nothing has done for a century, since Einstein's Relativity in physics, Darwin's Evolution in Biology and the socialist school in history and Economics, brought the last insights on the meaning of time to each of those 3 main bodies of science, which now can be unified by those cyclical properties of time.

In that regard a T.Æ of Philosophy of science is much wider than a physical T.O.E. (hence the use of a different 'wording' to distinguish both), which only seeks the Unification of Gravitational Masses and electromagnetic Charges – [a trivial result in T.Æ, once we define mathematically the 'fractal structure of space, and cyclical nature of time clocks'](#), ordered from minor quantum electromagnetic scales to larger gravitational, cosmic scales by the Metric of the 5<sup>th</sup> dimension of scalar space and cyclical time – correcting the errors of

lineal time and a single space-time membrane of current physics.

We are though in the hunt from a much larger view of Science and all its disciplines, each one studying one of those scales of relative size, whose discovery with telescopes and microscopes, started the adventure of science. Now 500 years latter we shall put them all together, in this blog, in 4 lines of increasingly complexity:

- The first line explains the basic principles common to all the species of the Universe, the second line offers a general view of the main 'scales' of reality, which humans observe departing from its relative 0-point of view.
- The third and 4<sup>th</sup> lines, which might never be completed by this author, departs from those 'basic thoughts of God' to analyze all its details and species, using a more formal structure. So we analyze the 10 main sets of similar laws or isomorphisms displayed by all systems of fractal space-time and then study all the main species of its 10 scientific scales, from forces to Universes and beyond (we have indeed included a final post, under the title of 'God', an abbreviation for 'metaphysics', on the ultimate meaning of man, god and the Universe deduced from T.Ⓔ).

As the web will be always under construction in such a wide theme, and with failing health, we put red thin lines in each post, between the well done parts and the block poured from 30 years of research still 'raw'. Hopefully in the future others will compete those details.

A T.Ⓔ of this scope, as nothing has been tried with such seriousness since Aristotle, and perhaps Leibniz, a clear predecessor of many of its concepts, has to be by its own nature, concerned with all the forms of human knowledge to be critical of the excessive importance attributed to physicists, pumped up in their importance during the XX century of

constant technological and military evolution, and economists, today dominant in societies through its monopoly in the production of money.

In that regard a T.Æ of all human thought must have an ethic standing, and consider man the center of all things, not only above the machine, but also as we shall see as the most perfect organism in an organic Universe (as its scalar nature that organizes parts into wholes make it so), and the scale of reality of which we perceive better information, a scientific model for many other disciplines.

On the other hand, physics while it has done extraordinary things, do not achieve that precision of measure, due to the study of far away scales of the 5th dimension, too small to measure (quantum uncertainty) or too big and remote to see (dark energy and matter, which is 96% of reality) so it must use 'probabilities' instead of certainties in his description of the infinitely small and adventure pseudo-scientific cosmologies of the whole in the infinite space and time (big bang cosmologies) of which little is seen.

Finally it follows also that bio-ethics - the survival of man - plays an important role in T.Æ, because Humans are the mind that knows, by existence, ' I think therefore I exist'.

So we shall make a deep criticism of those 2 disciplines which responds to the bio-ethical, survival practical purpose of T.Æ, besides its theoretical power to enlighten our mind:

- Economics, which today rules the world with money and it is not designing very well mankind, which finds itself immersed in an age of wars mostly for the profit of new technologies (robotics, vigilante cameras, hate-media), and global poverty caused by the ill-designed financial system of reproduction and distribution of money.

-And Physics, whose worldly religion still is to reproduce and evolve lineal weapons of energy of maximal motion (where more than half of research physicists, still work), as that profession has clearly biased its cosmogony to consider based in a big-bang explosion full of conceptual and evidential errors and its concepts of time, based in a single arrow of lineal entropy as the meaning of the future and all its parts (concepts parallel to disorder and death that those weapons deliver), forgetting the all too obvious arrows of information and iterative reproduction, which also configure the future events not only of life beings but of all kind of particles and physical systems, and do balance an immortal, infinite Universe.

Now to stress that a Theory of Everything not only fusions with those elements the laws of all sciences, and explains all its languages, but it devices new powerful tools of inquire, similar to those of Mendeleev with its table of elements in which holes with similar properties were filled in advance. Because the 3 elements of all 5D knots of space-times, which is what we all are, have common properties, we do have a tool to fill the dark spaces and uncertainties of physical systems and choose properly between alternatives and reveal solutions similar to those reached in more 'evident' sciences.

## **CONCLUSION. A VISUAL LOGIC RESUME OF IT ALL.**

Let us then conclude by making a visa and logic resume of the 3 formal motions of space and time, and its combined actions, the main components of reality and its infinite cyclical clocks, which physicists reduced to a simplistic concept of a lineal single time arrow of entropy for the entire Universe, changing truly with this 'ideology about time' (in as much as it was born of their worldly power, to make lineal weapons of energy), how science and mankind designed its future. We will be a bit ironic about them and the human species in general - hope you understand and don't take it personally...

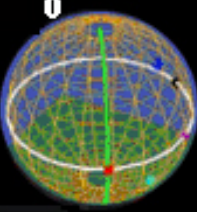
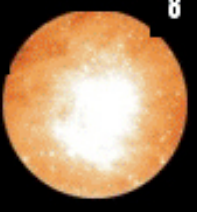
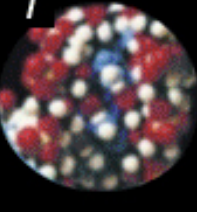

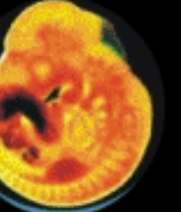
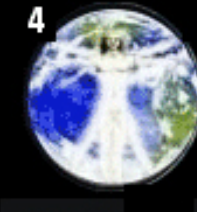


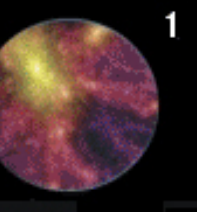
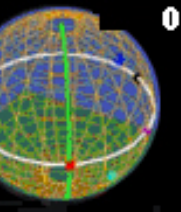
Time is bidimensional, and so a cycle of time has a dimension of height, and its static perception is a 'still picture', a bit of information. And energy is also bidimensional and its still picture is a plane of space. And one and the other constantly interact - lineal and angular momentum, potential and kinetic energy, heads and bodies and limbs, particles and waves and fields. We are all 4Dimensional beings mixture of energy and time, space and information. So:

SP: Spatial Extension  $\Leftrightarrow$ TF, and temporal information can transform into each other ad eternal. And this is the new fundamental law of the holographic universe. They mix together to form 4 Dimensional beings, and as time can be seen fixed as space, we do have a mental tendency to see time cycles as information, fixed forms, which we confuse with space.

So we are made of those bidimensional space-information, energy and time beings and their 'present 4 Dimensional combinations', waves and bodies of space-time that perform  $\pm 4$  actions of energy and information, plus the absolute arrow of the 5<sup>th</sup> dimension, towards life-social evolution and death, entropy disorder:

# 5th Dimension Metrics: $S_p \times T_f \approx ST_{U \pm 4}$

All what exists is a fractal Super-Organism made of:

<b>i-logic Time</b> 0	<b>Physics</b> 9	<b>Chemistry</b> 7	<b>Biology</b> 6	<b>Medicine</b> U=5
				
<b>History</b> 4	<b>Art</b> 3	<b>Astronomy</b> 2	<b>Cosmology</b> 1	<b>Non-E Space</b> 0
				




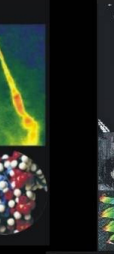


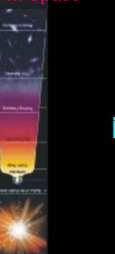
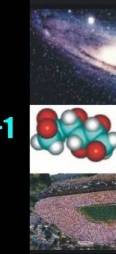

**3 networks=dimensions of Space:** ENERGY, REPRODUCTION & INFORMATION  
 Long Wide Tall  
**that live 3±1 cycles=ages, dimensions of time:** ENERGETIC YOUTH, REPRODUCTION, 3RD INFORMATIVE AGE  
 Past Present Future

<b>S-1</b> :CELLS				<b>S: FETUS</b>					<b>:CORPSE</b>	
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$$\sum S_p < T_s < T_f \Delta t-1 \sum > \Delta \sum P_s > \approx St \approx > Ft < S_p-1$$

THE 3±1 TEMPORAL CYCLES & 5 I±4 ACTIONS OF ANY FRACTAL WORLD

ORGANISMS ABSORB, EMIT AND COMBINE SPATIAL ENERGY & TEMPORAL INFORMATION IN 4+i TEMPORAL CYCLES OF:  
 Energy=Feeding Space=Reproduction Information=Perception, Time=Cyclic change and Fractal, Social Evolution

				<b>Motion in Time</b> <b>In Space</b>					
$\sum E_{i-1} > E_i$	$eti > \sum ET_i$	$\prod ti > T_{i+1}$	$E_i > TE_i > T_i << E_{i-2} : death$		$\sum T_i > T_{i+1}$				

So we can write with the same sentences we used to explain the Human being, all the beings of the Universe:

All systems of the Fractal Universe, including the Universe itself, are Non-Euclidean Points of Existence, **Ɛ**, co-existing in 3 relative  $\Delta_{\pm}$  planes of the 5<sup>th</sup> dimension, made of a finite amount of two formal motions, Lineal **energy motions (kinetic motions, lineal momentum, limbs and fields)** and cyclical **time clocks (angular momentum, Internal Energy)**, which conforms its **worldcycle** between seminal conception, in a **lower plane,  $\Delta-1$ , of cellular existence**, which emerges, **L**, in a **higher plane,  $\Delta$** , as a superorganism of a mass of billions,  $\Sigma$ , of atoms (physical systems), cells (biological systems) or citizens (sociological systems), knotted,  $\Pi$ , by its dimensional, Past, **E-ntropic Limbs/fields**, Future, **I-nformative Heads/particles** and **Present, Repetitive Body-waves and networks**, which help the system to perform a series of cyclical space-time  $\pm\Delta$  actions of absorption and emission of energy and information, as it **accelerates,  $\Delta\text{æ}$ , to feed on fields of energy,  $\Delta\text{e}$** , which it apperceives as **information,  $\Delta\text{œ}$** , to copy itself in an **offspring** of similar systems,  $\Delta\text{œ}$ , which evolve socially,  **$\Delta\hat{u}$** , into Universals, part of an external **Higher plane,  $\Delta+1$** , till its extinction, when the arrow of growing information and life reverses its path into a 'big-bang',  $E < = > Mc^2$  explosion of Entropy called death, that erases the information, of the entity, devolving it back,  $>>$ , two planes down from the  **$\Delta+1$**  society to the cellular  **$\Delta-1$**  plane. So the worldcycle ends into a zero sum.

In the graphs and texts we have iterated 3 times the essence of the worldcycle, or function of existence, which all systems of spatial energy and temporal information of the Universe follow, as they travel through 3 planes of the 5<sup>th</sup> Dimension, of relative scales of size and speeds of temporal information that structure the fractal, organic Universe.

Thus we talk in General Systems of a fundamental ternary



'particle' in the Universe, a super organism made of cycles/clocks of temporal information with cyclical geometries (the form that stores more information) and bodies/waves that reproduce the system, and lineal limbs/fields (as the line is the fastest motion between points) that move the system, fractal parts of space-time of a Universe made of infinite of such space-time beings, co-existing in those 3 scales, of an infinite scalar Universe, each scale studied by a science.

It resumes its entire species with a simple 'Generator Equation' written in the 'Non-AE formalism' of T.Æ, which writes:

*(Sp-limbs-fields<>ST-Bodies-waves<>Tf-Particles heads) $\Delta\pm 1$*

Whereas < is a flow of energy and expansive motion, > a flow of information and  $\Delta$  the symbol for the 5th dimension of multiple scales, L the symbol of an emergence in a higher scale and its inverse a devolution back into a lower plane, as in the moment of death.

Existence, is as simple as that, as complex as the entire Universe when we consider in detail each of those systems, its topological and organic properties and the interactions between its parts and wholes, in an iterative, organic fractal Universe.

In the graphs humans also are a system with those 3 organs/functions, which 'stretches' its function of existence,  $\mathbb{C}(\text{human})$ , through 3 relative scales of the 5th dimension, the  $\Delta-1$  cellular, i-organic,  $\Delta+1$  social scales, and lives and dies as all systems, travelling through those scales of space-time, born as a seminal  $\Delta-1$  seed, which emerges in the i-organic scale, where it is structured in 3 fundamental systems, of 'lineal motions/forms', the limbs, spherical motions/forms of information, the senses accumulated in the spherical head, and the reproductive, ovoid middle territory of the body.

And accordingly each of those 3 elements is structured around a 'digestive-energetic' system in the lower part (stomach-limbs), a blood-reproductive-hormonal system in the middle (heart-reproductive system) and an informative system on top (the head).

So we see how the simple elements of a ternary formal/functional Universe of infinite fractal space-time beings starts to take shape and explain questions, which were never answered, not even 'questioned' about the nature of it all.

Now the trinity of 'organs in space' with functions in time that show the same topological types of 'geometry in motion' open that wider view and reveals the vital whys of geometry, when we consider its symmetry with time motions/logic functions:

The top part of a human is the future, informative, head.

Its birth as a seed of cyclical information, starts its 'travel through the 5th dimension that we call life, in the lower cellular scale, which we write in  $\mathbb{A}$  (abb. existential algebra) as O-1 (a spherical seed of information of the  $\Delta$ -1 scale relative to the human i-scale).

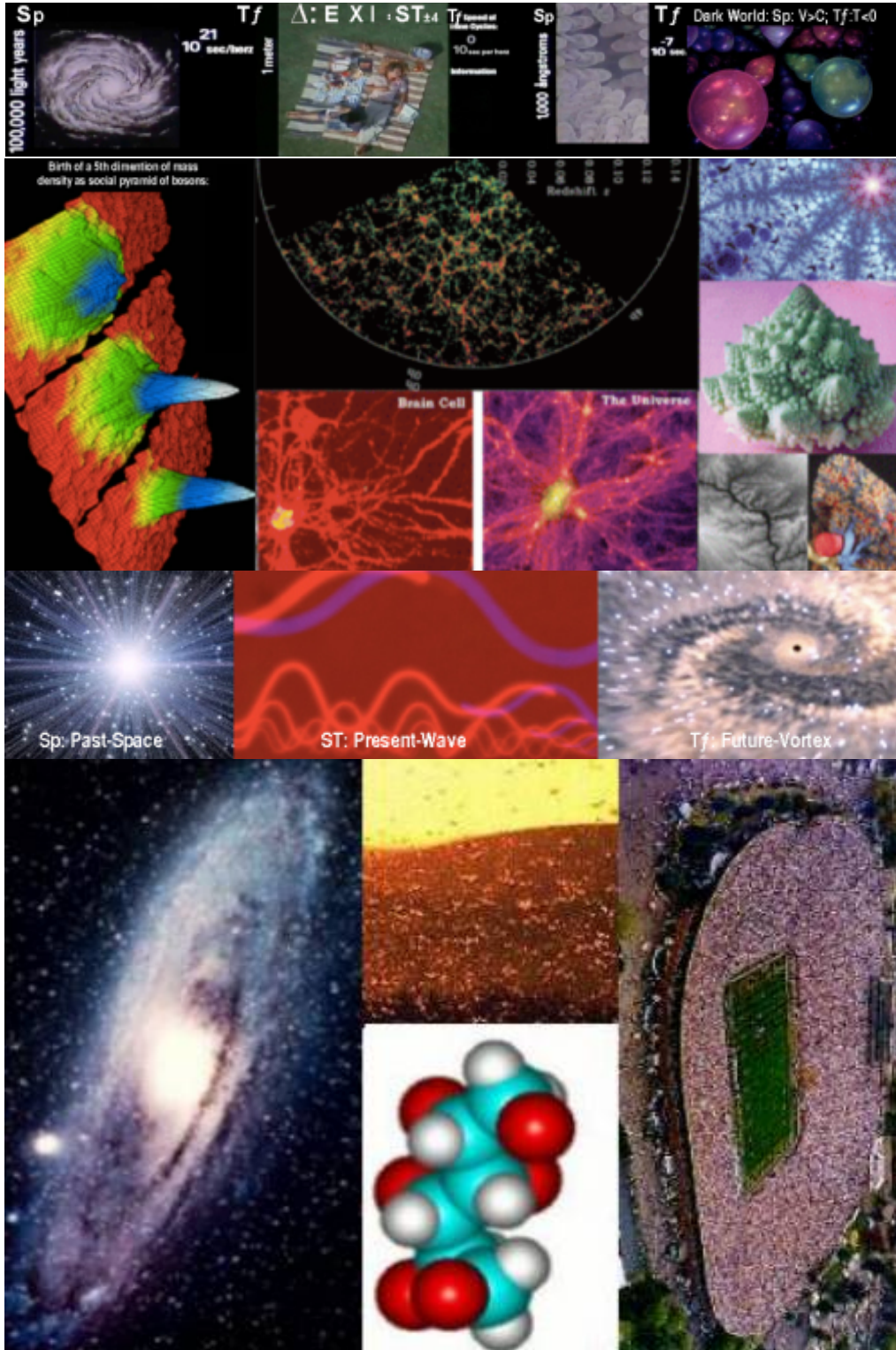
Then the fetus emerges in the word as a baby, a youngster that moves lineally all around, Max. Sp, full of energy.

A child is always feeding on energy and moving fast in space. It is the age of entropy, the young age.

But then he becomes dominated by his bodywave, reproductive system. It is the adult age or present longest age, in which it iterates into a family, it reproduces into a similar present form.

Finally all energy is exhausted, and the man warps into an excess of form, of cyclical memories, wrinkles and dies...

# Θ. CONCLUSION THE PANTHEIST, SENTIENT UNIVERSE.



Reality is a fractal of cyclic≈iterative timespace actions, knotted into exi=stential worldcycles, which travel along  $3 \pm n$  planes of the 5<sup>th</sup> dimension, between birth and extinction.

The Universe and all its parts are an organic system of networks of Spatial entropy and temporal information.

All type of Universal systems can be described as social networks of **energy and information**. Its similar=isomorphic laws are studied by general systems sciences.

IN THE GRAPH we see one of such isomorphisms: that of form, as systems form spherical topologies with a center of information -the nucleus of the galaxy, the game of the stadium, which is a 'ball' that all players, lines of energy pursuit (-; While in the center we see two herds without a clear center, proper of 'energy systems', a herd of insects feeding, a polymer atom of great strength without a crystalline center.

This site offers, the first formal, logic and mathematical model of those isomorphisms, from where we can deduce the main laws of each science that studies a relative 'scale' of spatial size of the social, organic Universe, from physics which studies its smaller and larger atomic and galactic scales to biology and social sciences which study its intermediate life and human scales.

All what you see in reality responds to a dual structure: Entities of Nature are complementary systems of simplex networks of energy and information, which combine to form a complex system that switches and merges both states. In the process the system might reproduce an entity self-similar to itself. And this is the definition of an organism, reason why we affirm that reality is dual and organic.

In Physics all what exists are particles of information associated to energetic fields that move them, and only both together exist (Complementarity Principle), creating a physical entity, which can decouple creating self-similar particles.

In Biology cells have a DNA nucleus of information, surrounded by cellular cytoplasm that provides energy to the nucleus; or an informative head moved by an energetic body. And only both together can exist, creating a biological organism. There are no bodies without heads and red cells without nuclei die faster than any others. And cells and organisms can reproduce self-similar forms.

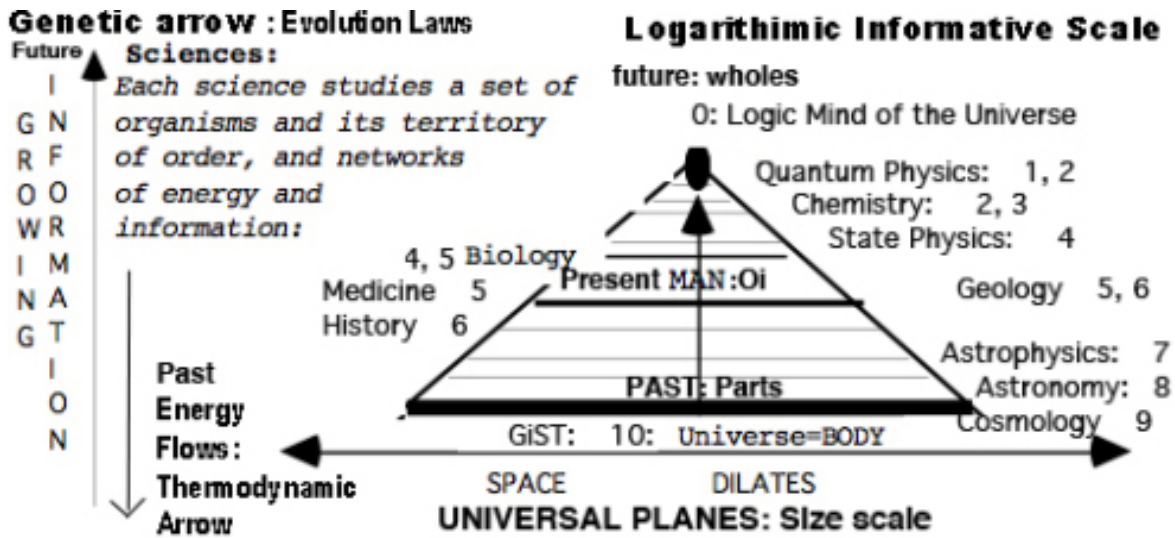
Finally, in the economic ecosystem money acts as the informative language that gives orders to the physical economy, which reproduces all types of serial machines.

We formalize all Dual systems and events of reality born of dual systems of energy and information with an Equation we call the 'Fractal Generator of Reality':  $Se \Leftrightarrow To$ . Since we claim this equation resumes all the events and forms of the Universe. And so we define a widened principle of energy and information:

'The Universe is a fractal, organic system, which reproduces complementary, social networks of energy and information that self-organize themselves in bigger, self-similar scales'.

*And so from the fact that all systems are made of dimensions of Spatial motion->Energy and Temporal Form->Information, across several  $U \pm 4$  spatial planes of Time world cycles of life and death, we extract common laws, called isomorphisms for all of them.*

## 5D as epistemology: unification of sciences.



*In the graph, the Universe has a 5th dimension of different 'scalar volumes' and different speeds in its cyclical time clocks. Such as the faster an entity completes its time cycles, the smaller it is. Thus we can classify all entities of the Universe made of relational space-time with 2 inverse arrows, one of increasing size in space and an inverse arrow of diminishing speed in its time cycles (appearing as angular momentum or vortices of forces, masses and charges in physics, as circadian, biological and metabolic cycles in living beings). Yet the product of both components of any universal entity remains constant, which allows the interaction between entities of different scales and gives origin to the metrics of the 5th dimension:  $Sp \times Tf = \text{Constant}$ . An astounding number of responses to standing questions of sciences can be explained through them.*

The importance of the 5th dimension in that regard is dual.

As it is the basis of a new Scientific epistemology, which allows the classification of all sciences according to the scale of the 5th dimension it studies; and on the other hand its metrics (rules of motion), encompasses all the previous laws of sciences and the metrics of 3 and 4 Dimensions within it,



creating the scaffolding for the Unification of all sciences.

The isomorphic laws derived from the common spatial topologies, temporal world cycles (life-death ages) and existence across several spatial planes of cyclical time, through which systems exchange energy from above to below S-planes and information through world cycles, from smaller to larger beings are the *core element that structures and explains all morphologies, events and flows of existence in the Universe.*

They explain an enormous number of Universal phenomena common to all systems, and species extending across those  $U_{\pm 4} = 9$  cyclical planes. And we call those common set of 10 type of laws the 'isomorphisms' of the Universe; of which 3 are essential as they derive of the essential space dimensions, time ages and  $U_{\pm 4}$  planes of space-time of which all beings are made:

*The isomorphism of the  $3_{\pm \Delta}$  time ages or 'world cycle of life and death' (the expanded concept of a world line used in physics of 4 Dimensions, as now the 5th dimension allows a back and forth movement up and down which completes the life-death cycle, hence making time cyclical).*

*The isomorphism of the 3 'topologies' of all systems in space, symmetric to the previous one: fields/limbs of hyperbolic energy, dominant in youth; toroid, reproductive body-waves, dominant in the adulthood and informative spherical membranes and zero-points dominant in the 3rd age.*