

< Quantum-Bio-Physics Realm > in modern science&art .

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THE FUTURE OF THINKING

<http://www.sciencemuseum.org.uk/antenna/neurobotics/control/111.asp>

Premise.

<Quantum-Bio Physic realm> is given for setting new foundation- principles for the ultimate frontiers of scientific knowledge.

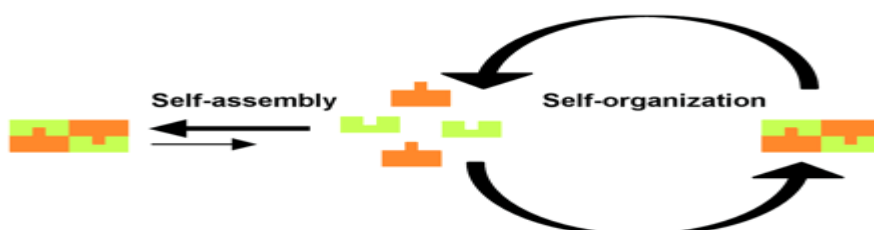
The history of scientific thinking demonstrate that "foundation-principles" are most important to render predictable new frontiers of knowledge, than physical theories.

A better knowledge of self organization phenomena nowadays need to think about a "*new conceived realm*" of scientific reality, in order to overcome the old "Principle of Subjectification", based on the arbitrary subdivision between "*Res Cogitans and Res Extensa*"; the last derived by the ancient "*Descartes*" thought, that split the unified realm of evolution , in subjective and objective sections, aiming to made a reduction of science to a simple < **mechanics model**>.

As a matter of facts the subject/object splitting in classical mechanics , was a consequence to search for avoiding to think, that brain, is effectively a bio-physical dynamic structure, working on the basis of the triadic forms of energy e.g. **Energy, Matter and Information**. In spite of the "Descartes reductionism" , brain's functioning is really an objective-active manifestation of self-organization of Biological- phenomena. (1)

More in general is known that, the manifestation of "self organization phenomena" happens at all levels of world evolution. In fact bio-chemical systems exhibit, *outside of equilibrium*, their ability of self-programming of timing dynamics and of self assembly of molecular space dimensions, in any bio-chemical transformation. In particular, "*living cells*" , continuously utilizes self-programming to re-programming their metabolism, till to forecast of the death of the cell (Apoptosis -2) . Therefore, *in similar way of the effective Brain's functioning*, all dynamic development of living and no-living entities, experimentally demonstrates that spontaneous self-organized systems *exchange not only energy and matter, but also information*, to realize a catalytic "*no-local*" coordination of the development of every bio-chemical transformations.

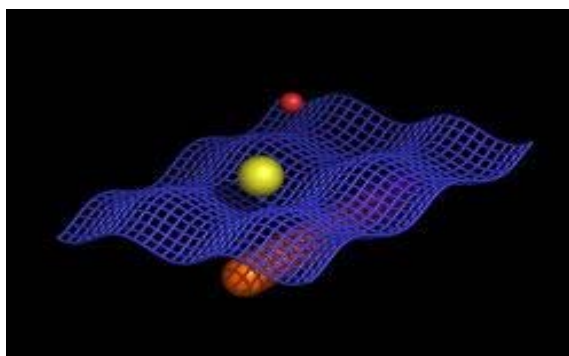
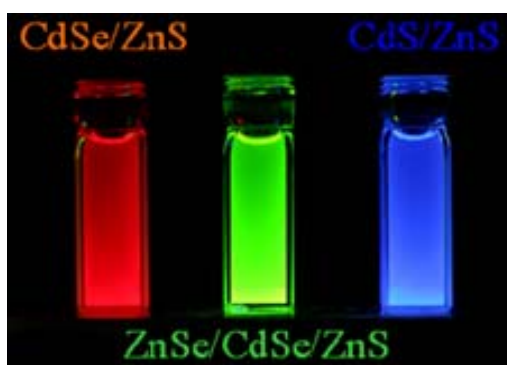
Today a deeper underlying the reality of "*self –organization dynamics*" among "*Energy, Matter and Information*", is a fundamental scientific challenge to deeply understand the organization of nano-structures obtained by self-assembly methods in the fields of nano- and bio-technology , working at nano-metric scale.



The Nature of Information.

Starting from to break the barriers between “*subject and object*”, in proposing a new paradigm of “*Quantum-Bio Physics*” it is important to define some fundamental assertions related to the nature of Information in : **Quantum-Bio-Physics Realm** .

- 1) **Nothing is “not- Energy”** ; in fact **Matter is a condensed energy (EM) and even pure Information belong to a form of Energy**; this because “**Information**” is a fundamental aspect of all forms of bio-physical evolution. So that “*information*”, like the other forms of energy, is never destroyed, but only “*codified//de-codified*” in different commutative quantum-compositions of space-time matrix, getting different proportionality among the relative relationships of fundamental forms of Energy. (3)
- 2) **The chronotope, as well as the discrete Energy spectrum, is quantized** ; therefore at the various levels of mutual relations between “*space and time*”, can be found different properties of interaction among the fundamental forms of energy. As a consequence of the general relativistic reciprocal covariance of the space with time vector’s matrix , “*No scientific concept is sufficiently defined without the knowledge of its space-time domain of validity.*” (4)
- 3) **Quantum Particles can be “entangled”**, through any action of “confinement” that overlap the quantum wave-particles. So that the new conceptual framework of “*Q. Bio.Phys*”, advance the standard model of the Quantum Mechanics (Q.M.), in which every object is composed of separate Q. Particles. Besides Q.M. considers, complemented and indivisible the dual properties of “*particles*” (**EM**) and “*waves*” (i.e. Vibration-Energy- **EV**). (5)
- 4) **The Entanglement of Q. Particles** determines the quantum jump, generating the formation of a field of “*pure quantum- waves by the splitting from the associated particles*”, getting the **new Information Energy Field (EI)**, in two-dimensional structure in space and time. The “**El-field**” works as a resonant induction of “*non-radioactive energy*”, characterized by the specific Quantum Level of stationary Energy exchanges, related to the Entanglement power.



- Change of colour in nano-particles-

- Quantum Wave splitting from Particles-

Stonehenge as Chronotope

http://www.eng.umu.se/realities/jim/stonehenge_as_chronotope.htm



As a consequence of the previous postulates, the manifestation of information, can be differently codified, in relation to the possible quantum- interchangeability of space in time vectors at any critical change of topological codification happening among the three quantum-metamorphosis of the “**chronotope**”. (6)

- A) **Quantum Fundamental Domain of Chronotope.** (in coordinates: **XYZ,T**). The “*Information Energy*” (**EI**) in the context of the traditional Space-Time structure, based on the “linear time”, is embodied in the matter (**EM**) or Vibrational Energy (**EV**) ; therefore, in this domain “*Information*” can only be transferred from a point of space to another within the limit of the speed of light.
- B) **Second Domain of Chronotope,** owed to a *chronotope metamorphosis* (in coordinates : **XY,T1,T2**). The breaking of the uni-directional flow of the time in “*forward*” and “*backward*” times, obtained by “*quantum entanglement*”, produces a field composed by free waves of “**Information Energy**” (**EI**) . The existence of a “*second time arrow*” essentially permit to obtain a dematerialized “*time-frame*” where “**simultaneity**” can acts at distance, as resonant information for all the extension of the “*EI-Field*”. In fact, the continuity of the resonant “*EI-Field*”, having the same information at distance, is the essential characteristic of spontaneous self-organization phenomena in “*Quantum-Bio-Physics*” .
- C) **Third Domain of Chronotope,** (in coordinates : **X,T1,T2,T3**) is fitting a complex constructive/disruptive quantum-dynamics of traversable “**worm-holes**” in an single dimension of the space, generating in this way a “*tunnelling geometry of space-time*” in three phases, associated to $T1,T2,T3$, time-vectors characterizing the three “*Inform-actions*” : ') -disembodiment of virtual information (*EI*) from (*EV and EM*), ") - connecting via, **EI-field mirroring effect**, the disconnected regions in the wormhole between the two clock-wise and un-clockwise vortex-actions, "')- evaporating the radiation out of the wormhole in the great Universe. Therefore “*Information is 'not lost' in wormholes*, but is mirrored at distance in a dense gravity that alters the space-time till to an linear space dimension of the Energy -transformation flow.

According to the Quantum-Bio-Physics paradigm of space-time quantization , the principle of “**Total Energy Conservation**” is effectively extended to include the power of mental experiences of the human-subject, so important to implement energy transformations in nature, by means the development of scientific rationale and artistic aesthetics of mind creative expression .

An good occasion to open a participatory debate of foresight emerging challenges from the < **Quantum-Bio-Physics Realm** > in modern science&art , will be the meeting in Florence (IT) of the <Open Network for New Science and Art> , co-organized by EGOCREANET (www.EGOCREANET.it) and collaborators, that will be held in “Strozzi Palace”, c/o Vieusseux - Ferri-Hall, in Florence (IT) the next 20/21-NOV.2008. (7)

N.B. - Salvador Dali', in his paintings shows an impressive feeling for the **"Metamorphosis of space time"**, that he expressed through a radical **re-envisioning** of the space-time matrix. *"Time as space in aestheics domain"*, can be e seen as a forecast of an emergent paradigm of **"Q.Bio-Phys Realm"**. In fact spatialization of **bidimensional-time**, shows that **"simultaneity"** in artistic simulation, was primarily expressed through the virtual eye of the creative minds. Hence S.Dali' paintings represents, in contemporary era, the best expression of how the *"immaterial aesthetic power of artistic visualization"*, anticipates future paradigm shift in scientific knowledge, in a way that in synthese both **"Science& Art"**, will be able in making new sense and meaning to develop a <Quantum Bio-Physic Realm> for improving a more consciuos rationale and aesthetic evolution of contemporary human minds. **See from:** www.artselect.com/blog/favorite_artists/



[Bidimensional cloks,](#)



[1931](#)

[The Metamorphosis of Narcissus, 1937](#)

- (1) [LRE : http://www.edscuola.it/lre.html](http://www.edscuola.it/lre.html)
- (2) [Aptosis \(in italian\) http://ww.edscuola.it/archivio/lre/apoptosis.htm](http://ww.edscuola.it/archivio/lre/apoptosis.htm)
- (3) [Space –Time Architectures: http://www.wbabin.net/science/manzelli37.pdf](http://www.wbabin.net/science/manzelli37.pdf)
- (4) [Space/tiBiochemical transformations : http://www.descrittiva.it/calip/dna/CHEMISTRY.PDF](http://www.descrittiva.it/calip/dna/CHEMISTRY.PDF)
- (5) [Apome covariance : http://www.edscuola.it/archivio/lre/quantum_st_notes.pdf](http://www.edscuola.it/archivio/lre/quantum_st_notes.pdf)
- (6) [Entanglement Theory : http://www.wbabin.net/science/manzelli11.pdf](http://www.wbabin.net/science/manzelli11.pdf)
- (7) [Quantum-Bio-Physics : http://www.wbabin.net/science/manzelli30.pdf](http://www.wbabin.net/science/manzelli30.pdf)
- (8) [ON-NS&A Meeting : http://www.wbabin.net/manzelli3.pdf](http://www.wbabin.net/manzelli3.pdf)