Biophysics, Quantum Physics & Neuro Aesthetics Research – Applications - Art



Cosmic Embryogenesis (in Three Easy Steps)

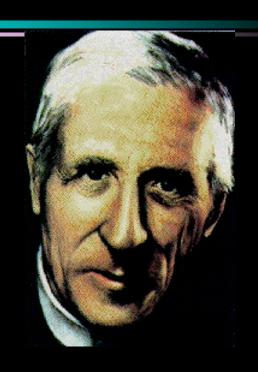
Geosphere/Geogenesis (Chemical Substrate)



Biosphere/Biogenesis (Biological-Genetic Substrate)

Noosphere/Noogenesis (Memetic-Technologic Substrate)

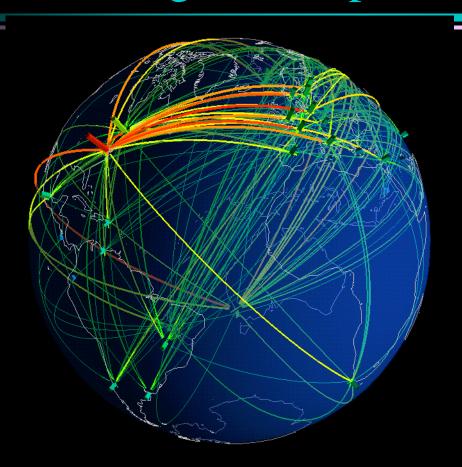
Le Phénomène Humain, 1955



Pierre Teihard de Chardin (1881-1955)

Jesuit Priest, Transhumanist, Developmental Systems Theorist

De Chardin on Acceleration: Technological "Cephalization" of Earth

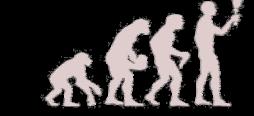


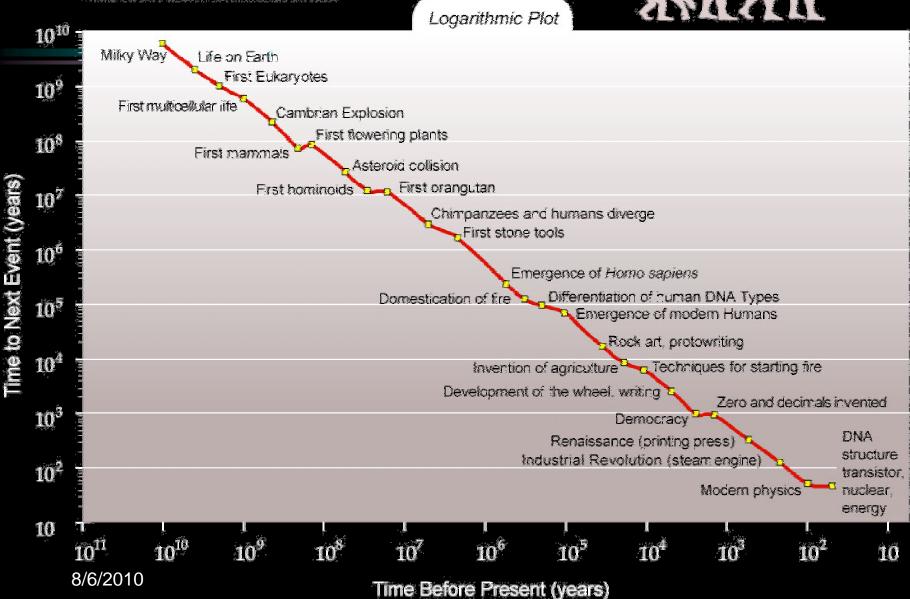
"No one can deny that a network (a world network) of economic and psychic affiliations is being woven at ever increasing speed which envelops and constantly penetrates more deeply within each of us. With every day that passes it becomes a little more impossible for us to act or think otherwise than collectively."

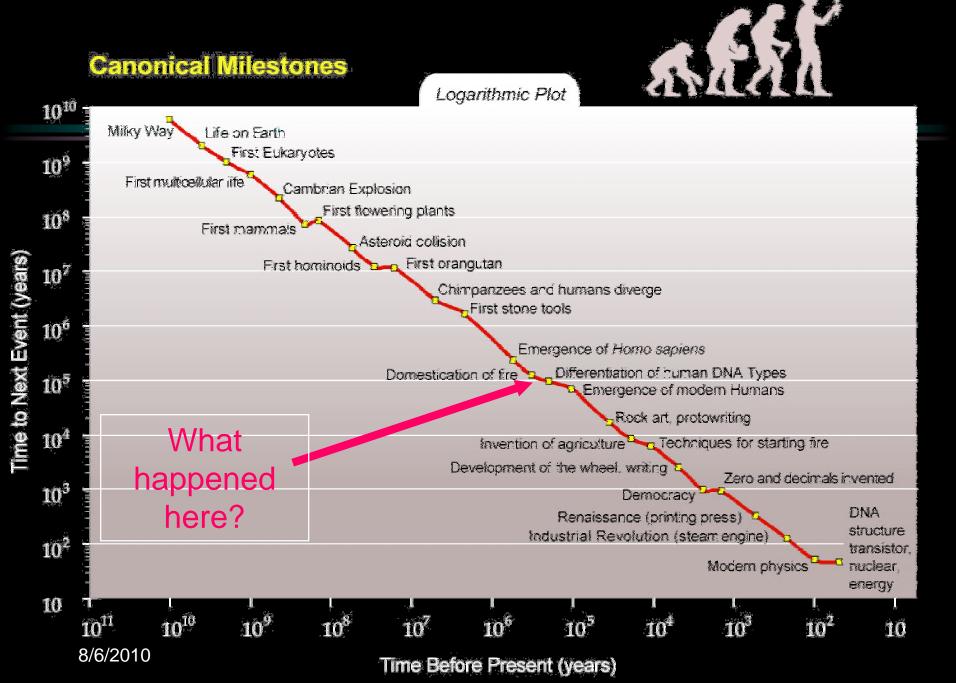
"Finite Sphericity + Acceleration = **Phase Transition**"

8/6/2010



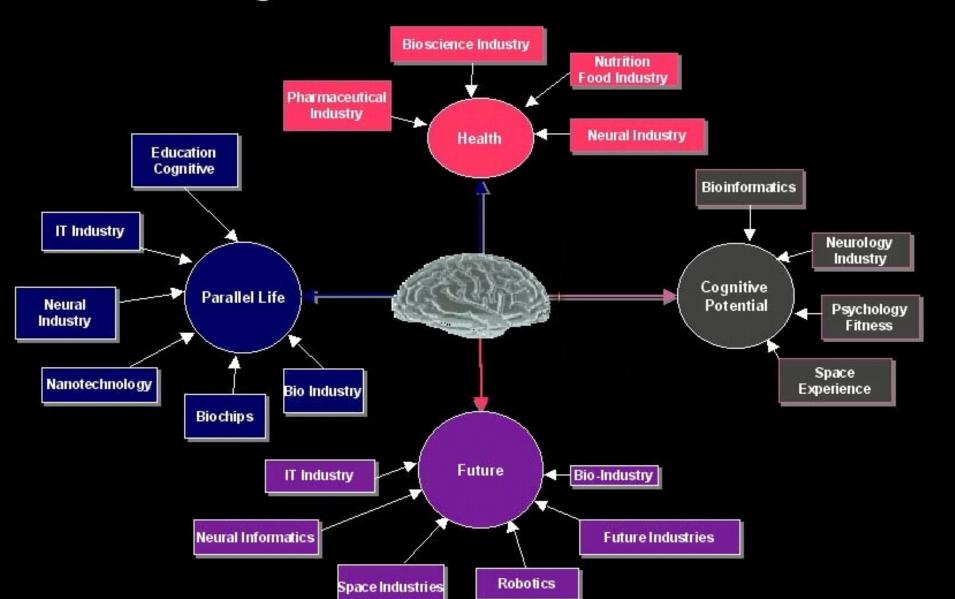




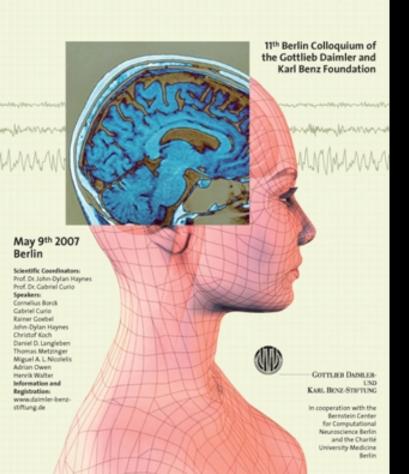


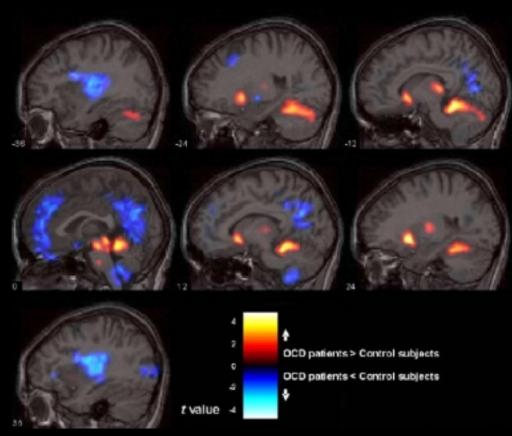
Primary Convergence Vectors

Industries Segments in Neural Industries 2002-2020



Exploring the Mind What Our Brain Reveals about Our Thoughts





Collective Consciousness Enhancement

Evolution of the Hybrid Quantum Meta-Organism



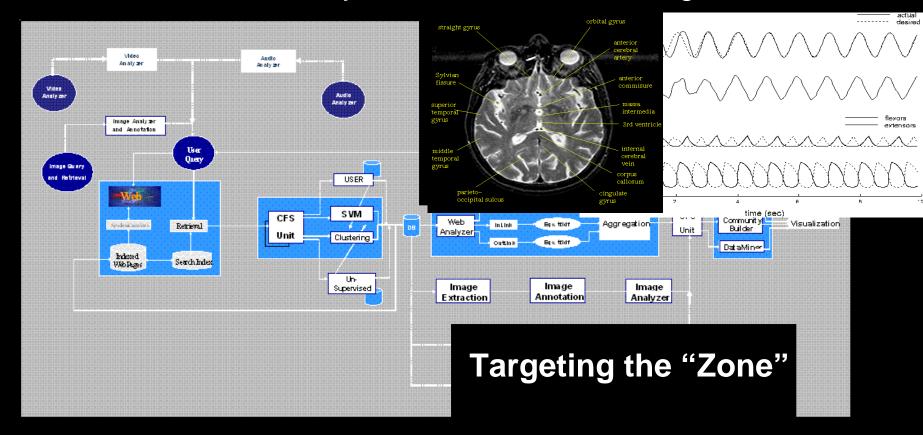


Mapping the intersection of inspiration and consciousness



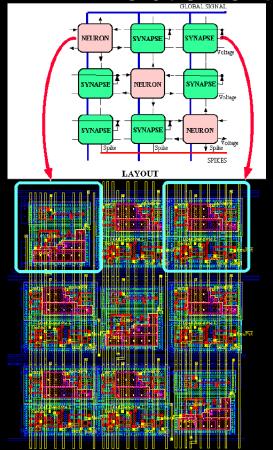
Collective Consciousness Enhancement

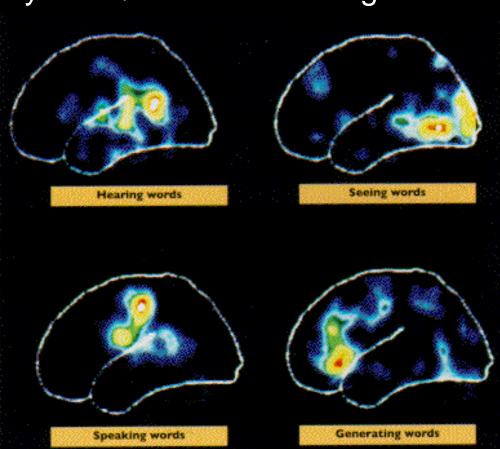
Evolution of the Hybrid Quantum Meta-Organism



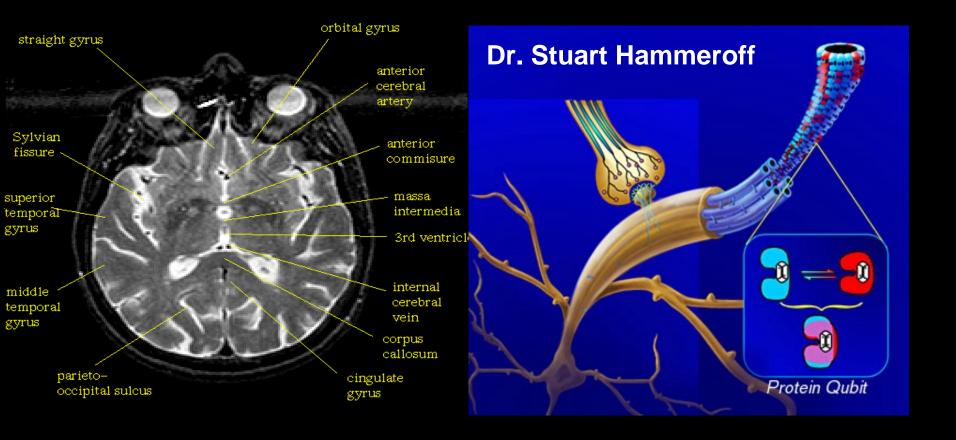
Collective Consciousness Enhancement

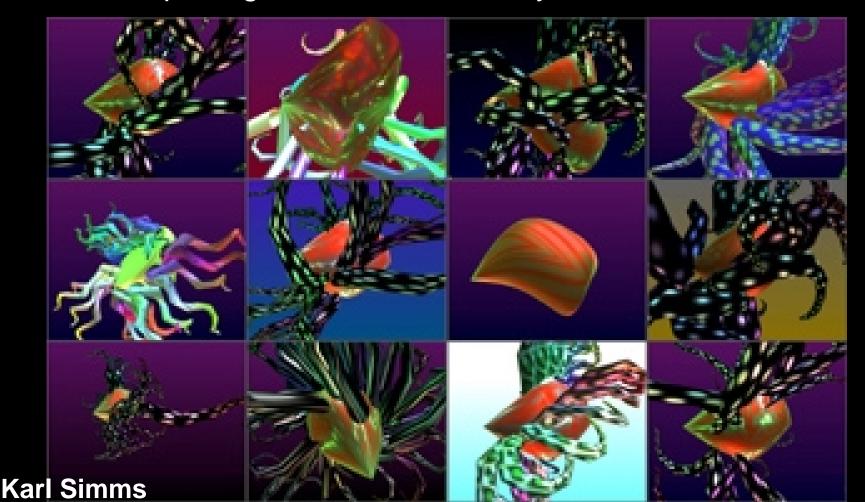
Evolution of the Hybrid Quantum Meta-Organism

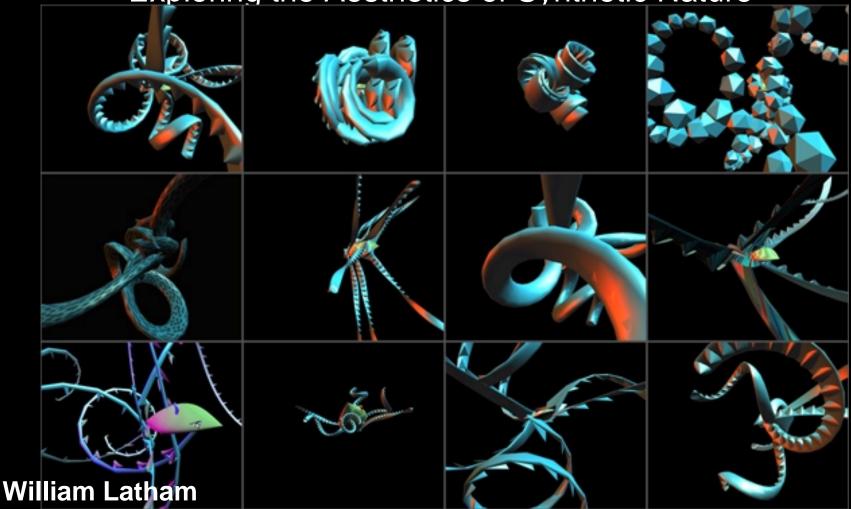




Collective Consciousness Enhancement Evolution of the Hybrid Quantum Meta-Organism



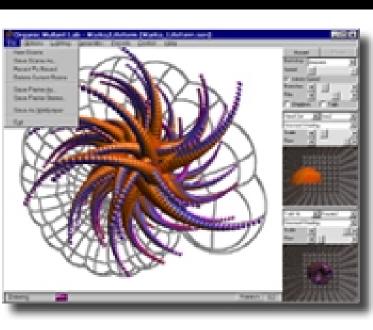


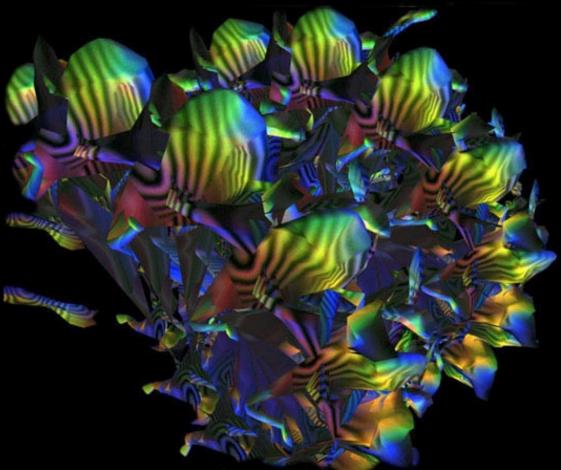


Exploring the Aesthetics of Synthetic Nature



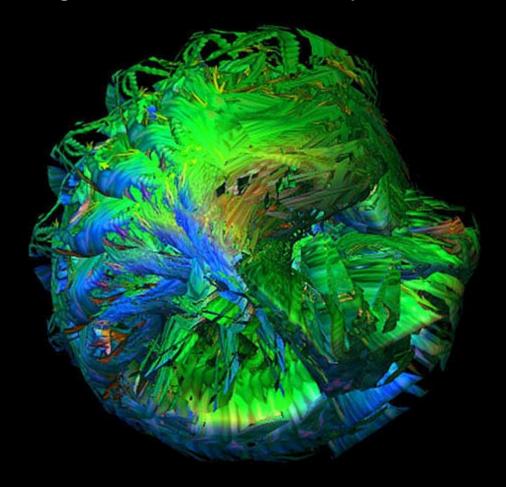
Inspiration and consciousness

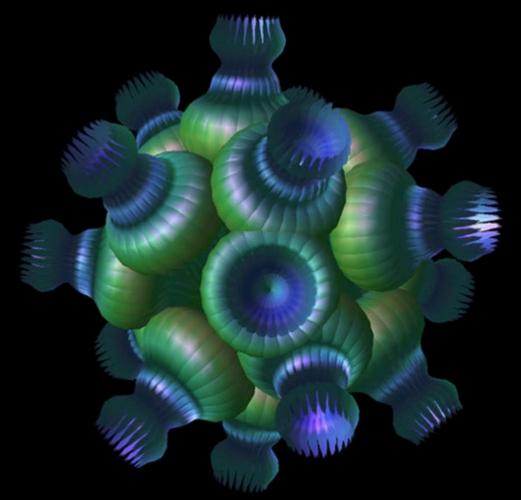




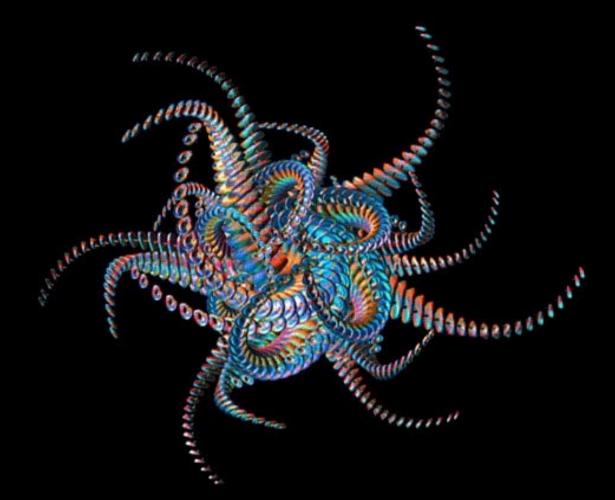






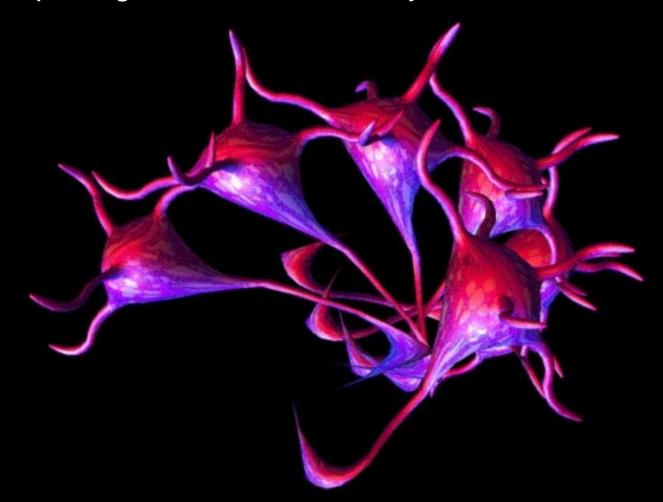


Exploring the Aesthetics of Synthetic Nature



8/6/2010

Exploring the Aesthetics of Synthetic Nature



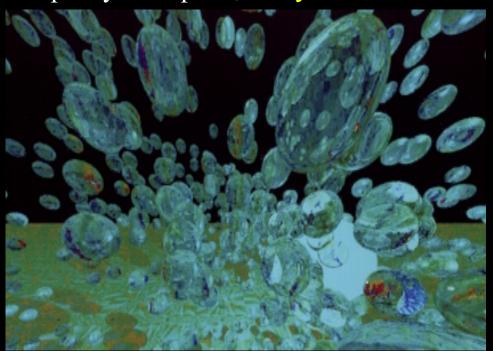
8/6/2010



Evolutionary Process Dynamics

"I believe that fractals respond to a profound uneasiness in man" - Benoit Mandelbrot

- Evolution tends to be a trauma induced process
- Fractal system model operates at all scales, from the individual, to the collective, entire systems
- Provided the periodicity and amplitude of trauma cycles do not exceed the system capacity to respond, *the system tends to evolve to a more robust form*

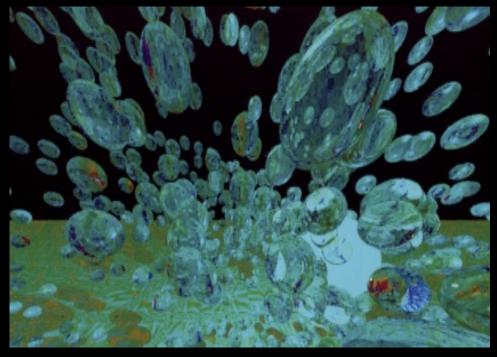


Possible conclusions – Evolutionary pathways

Evolutionary Process Dynamics

"I believe that fractals respond to a profound uneasiness in man" - Benoit Mandelbrot

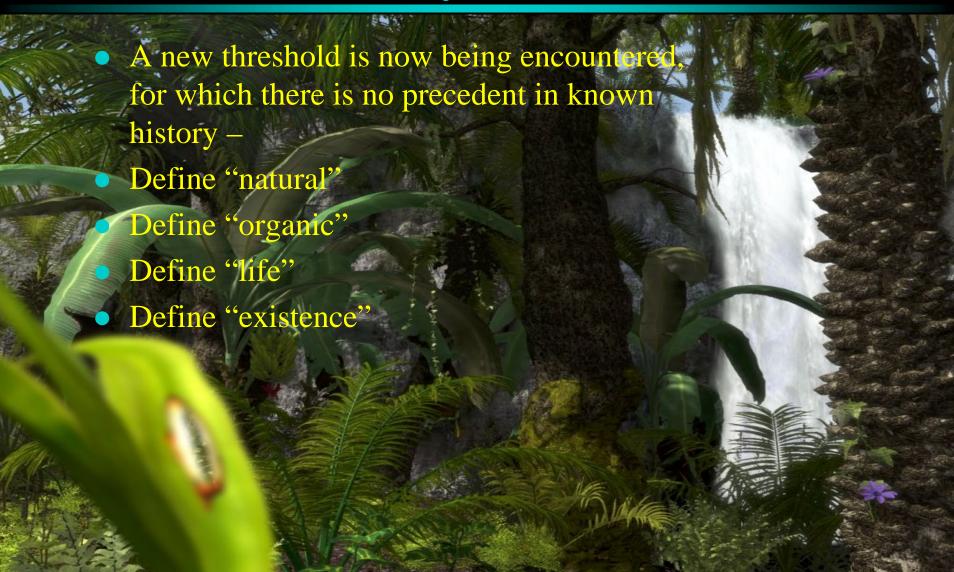
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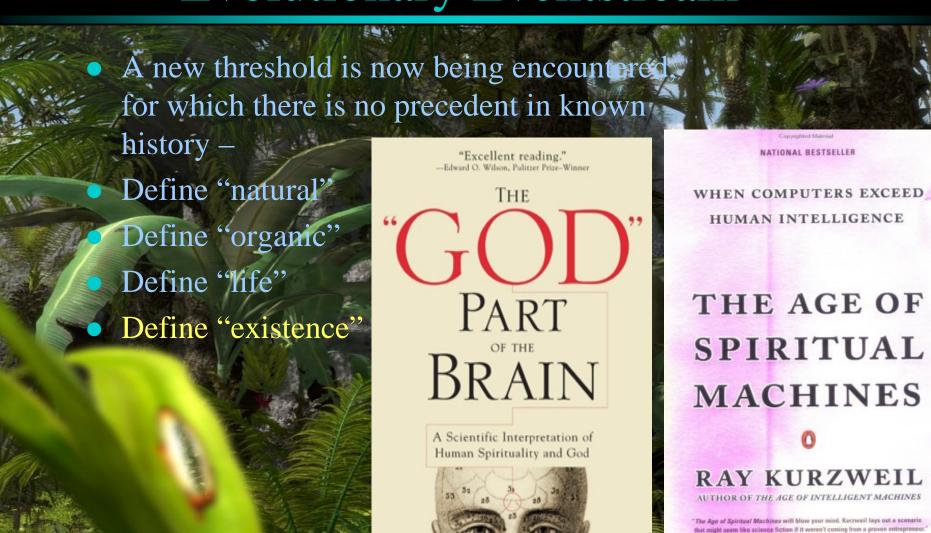
"We never stop investigating. We are never satisfied that we know enough to get by. Every question we answer leads on to another question. This has become the greatest survival trick of our species."

Desmond Morris

Existence Imperatives of the Evolutionary Eventstream



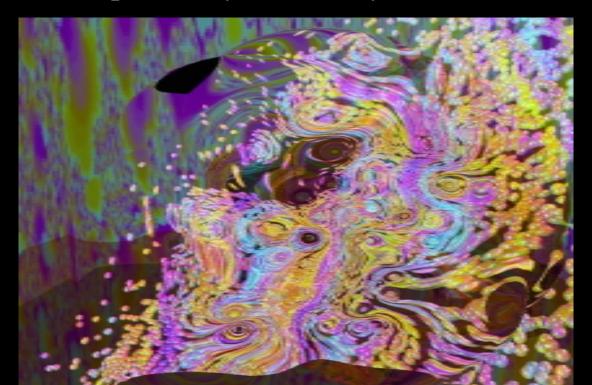
Existence Imperatives of the Evolutionary Eventstream



MATTHEW ALPER

- San Francisco Chronicle

- Transition from localized to non-localized cognition
- System level morphology as the objective
- Physical and spiritual synchronicity

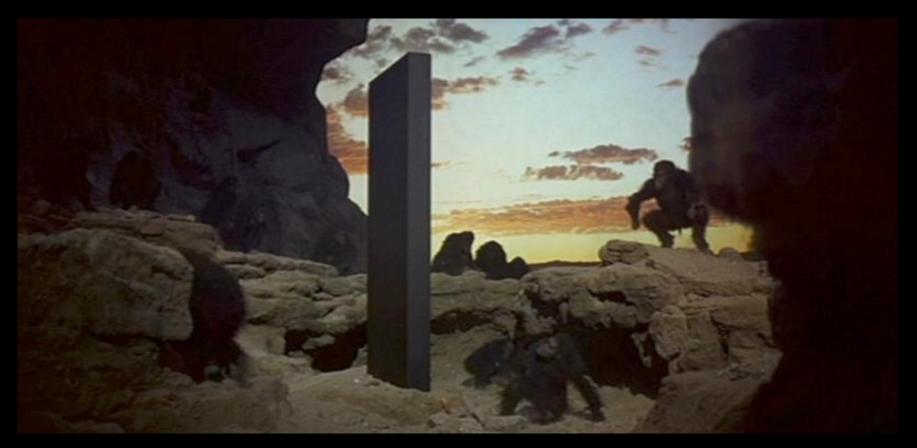


The Holographic Perspective

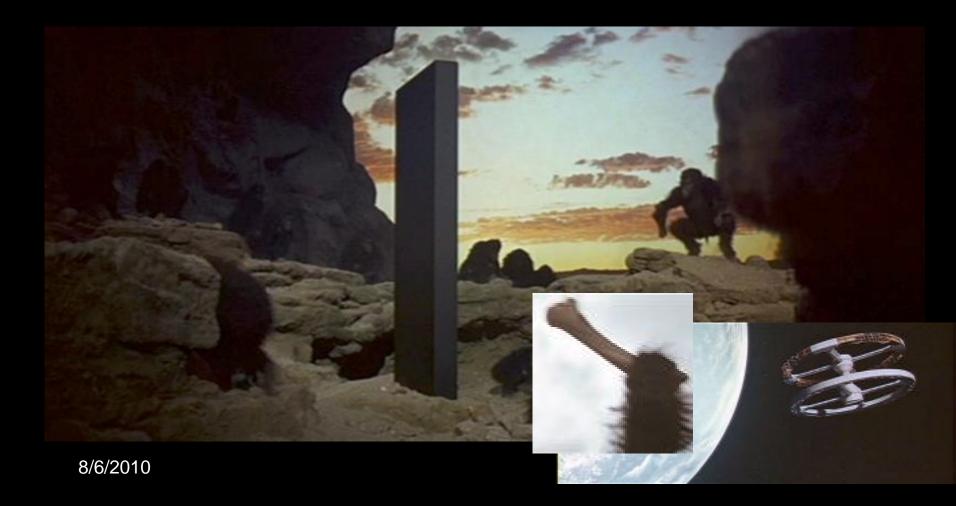
- All living things are systematically interconnected
- Definition of "living things" extends to systems, processes, entities which behave biologically



The Evolutionary Evenstream . . .



The Evolutionary Evenstream . . .

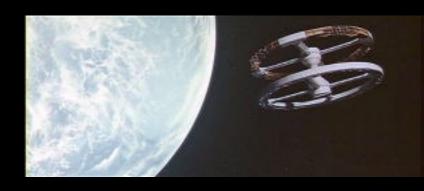


The Evolutionary Evenstream . . .



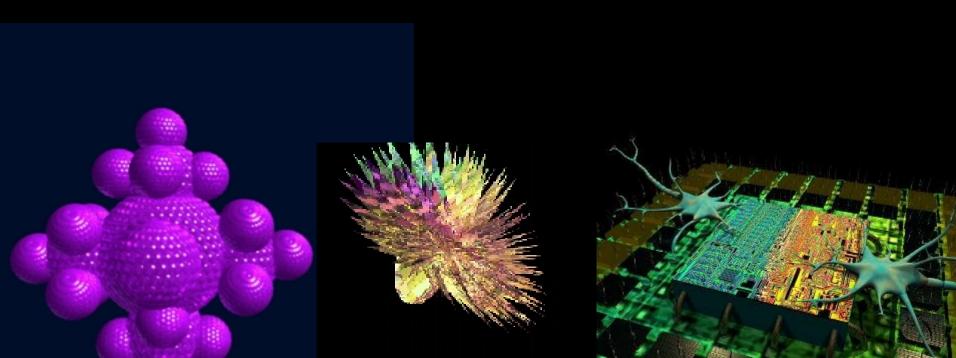






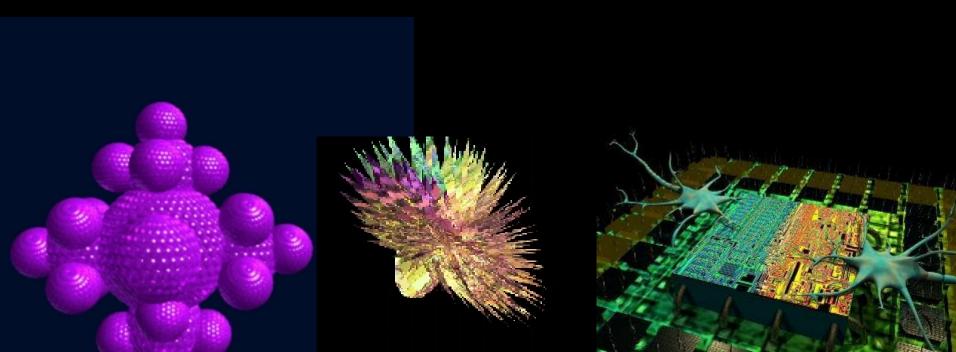
Cultural Imperatives of the Evolutionary Eventstream - Emergent

Nowledge complexity, scale, and velocity is exceeding human capacity for mission critical decision rendering compressed into ever shortening time scales.



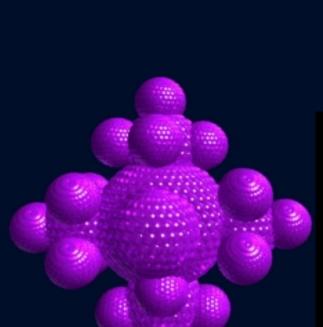
Cultural Imperatives of the Evolutionary Eventstream - Emergent

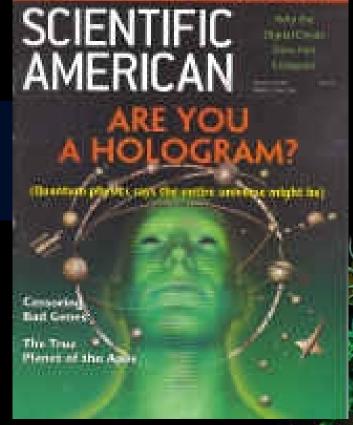
- Knowledge complexity, scale, and velocity is exceeding human capacity for mission critical decision rendering compressed into ever shortening time scales.
- Define Life, Consciousness, Existence . . .

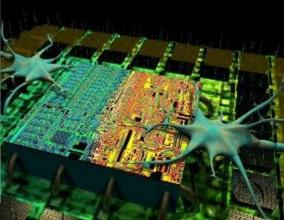


Cultural Imperatives of the Evolutionary Eventstream - Emergent

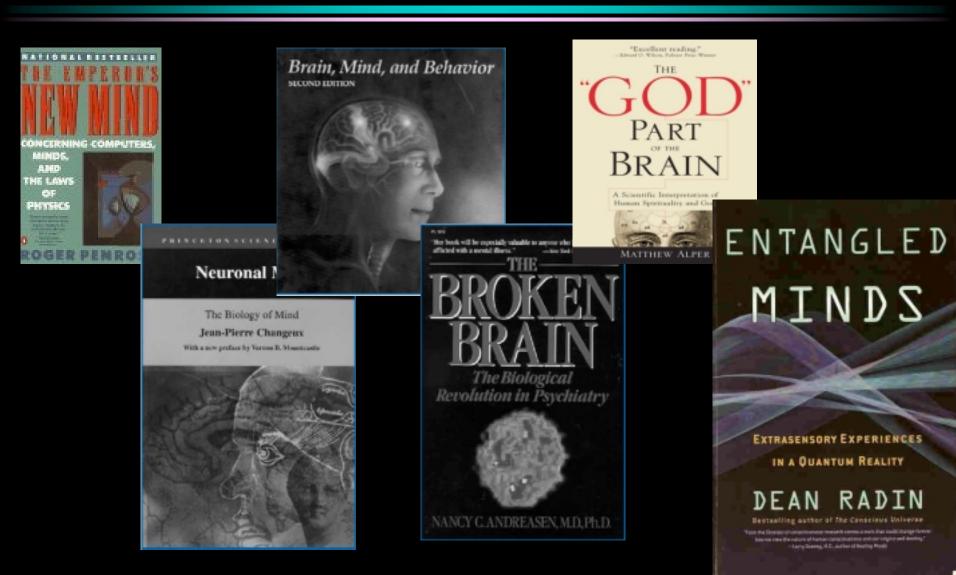
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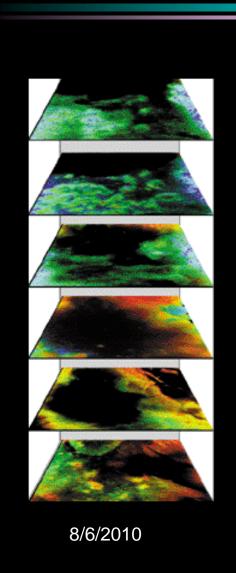


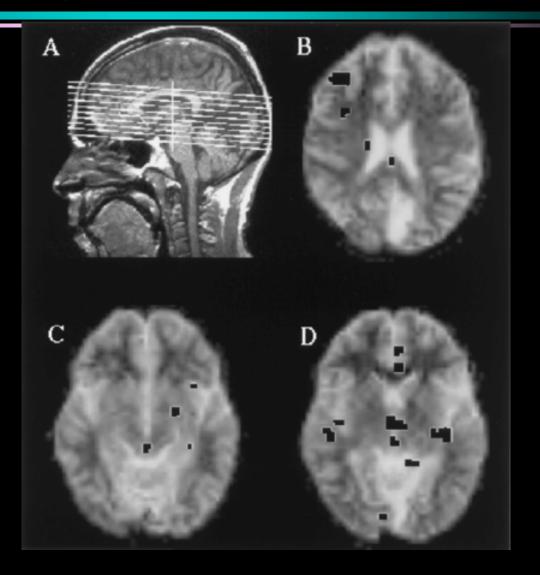


Biophysics Quantum Physics Consciousness . . . Existence



Mapping the Brain . . .





Mapping the Brain . . .

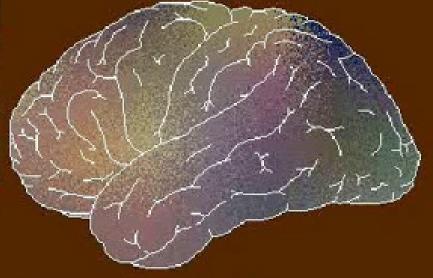


Pro Science CATEEM U 17.3 Color Vision from 20% to 370%



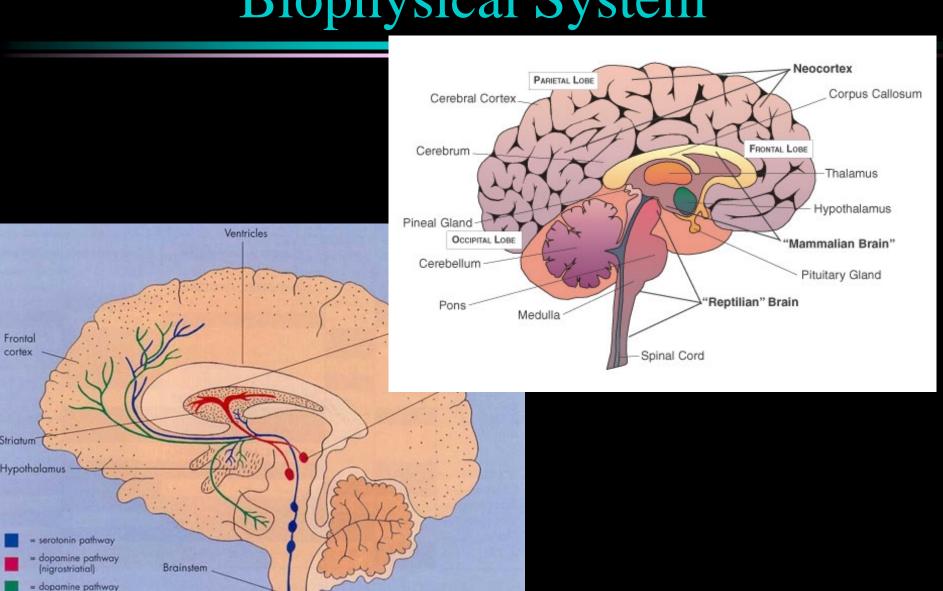






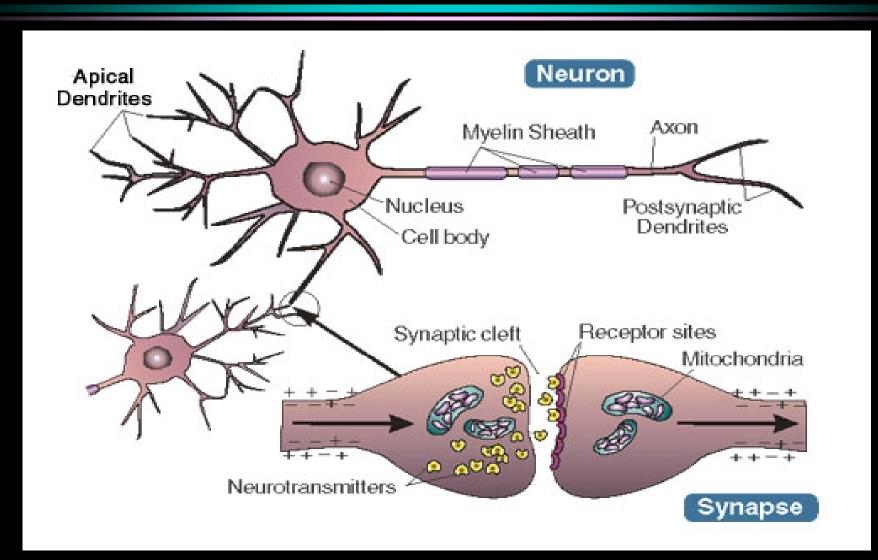
#Z0:0902-K-BN1-29.EEMM Exp. Time: 00:16:30 81% Ok

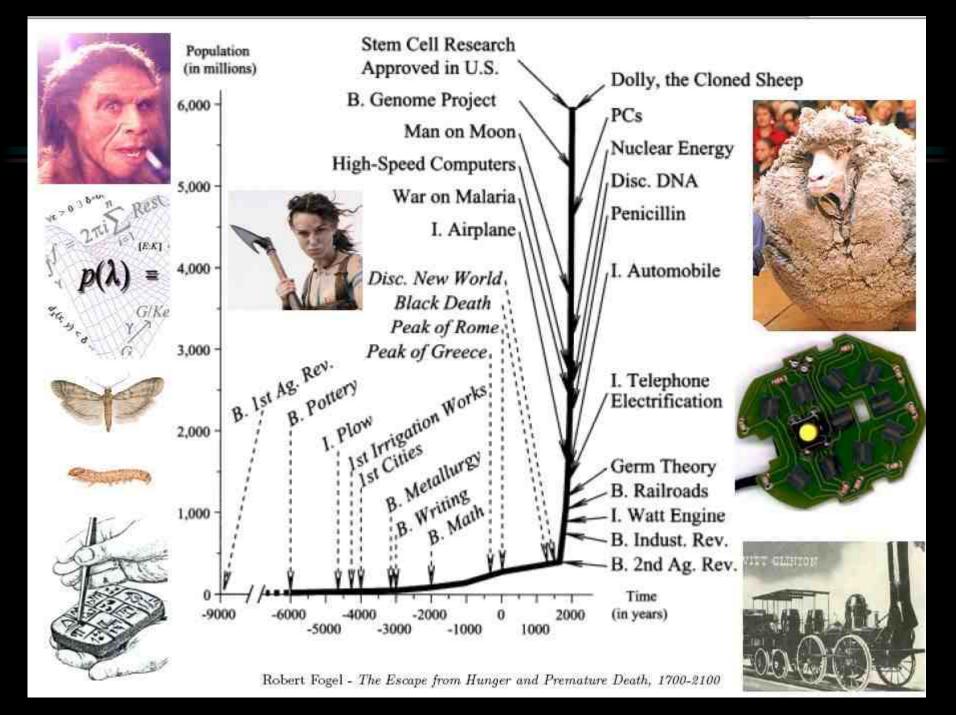
Brain Mapped as a Biophysical System



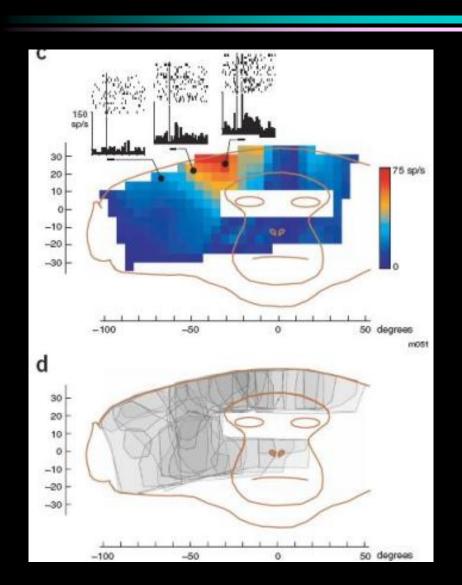
(mesolimbic)

Electro-chemical signal process engine



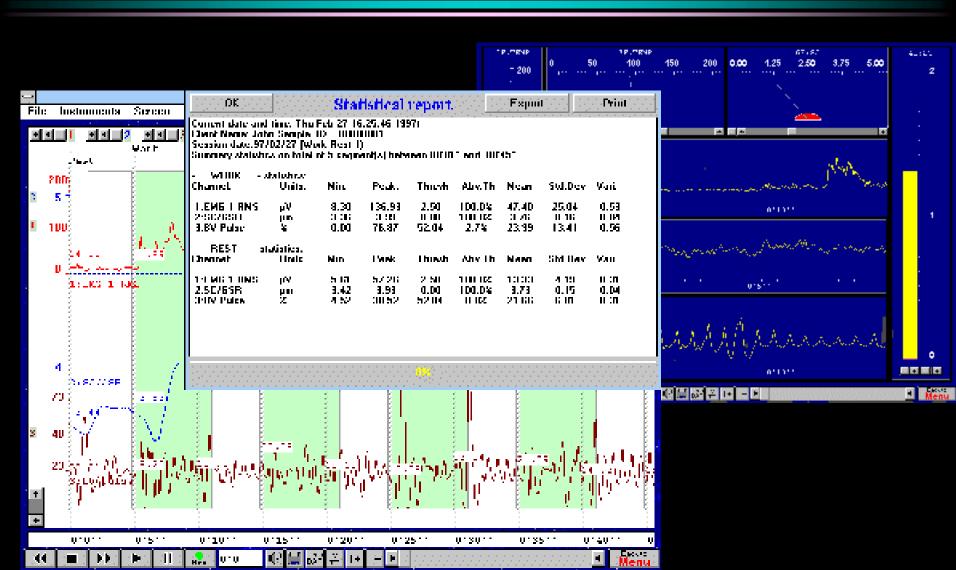


From electro-chemical signal process engine > Neuro Aesthetic Cognition





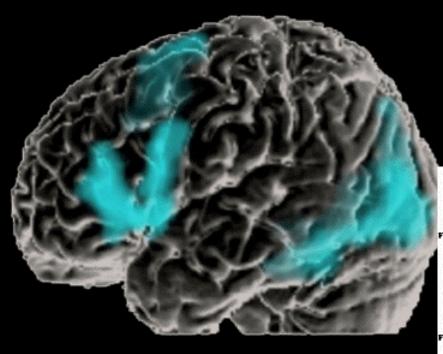
Mapping Neurological Functions

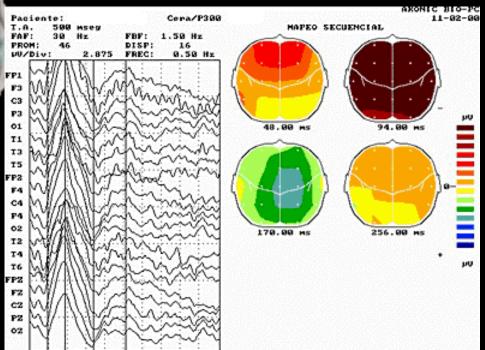


Correlating to Cognition

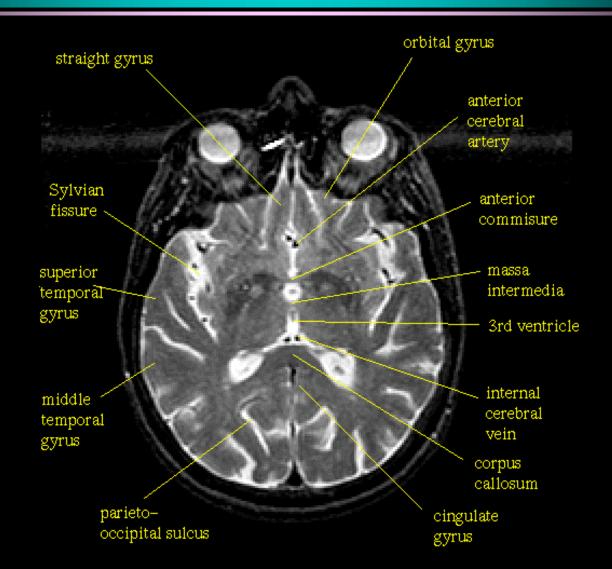
NOTA:

Cera/P300



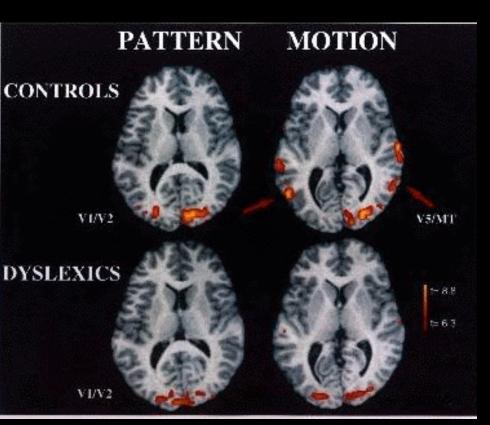


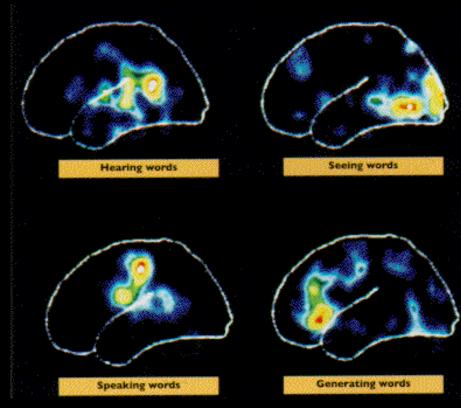
Left / Right Process Domains



8/6/2010

Creativity, Emotion . . . Neuro Aesthetics



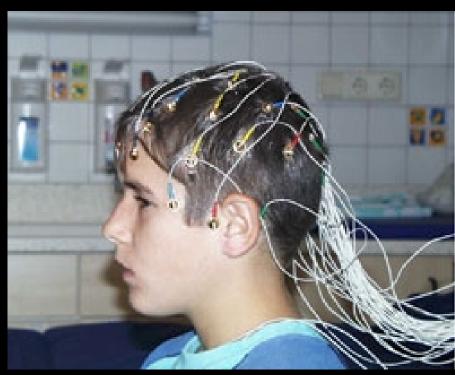


From Clinical Analysis to User Friendly Interface

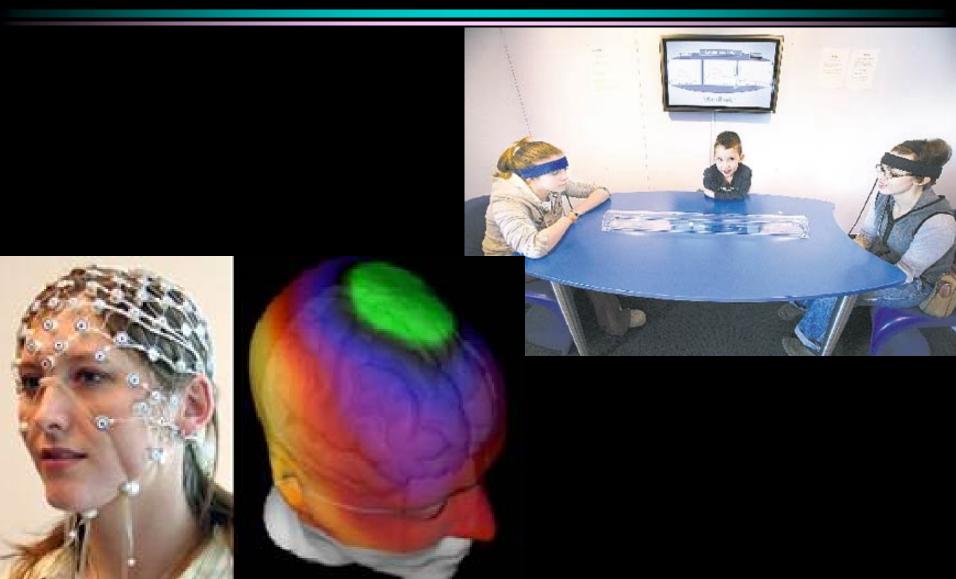


Consiousness on Demand - the Next Emergent Process Deliverable

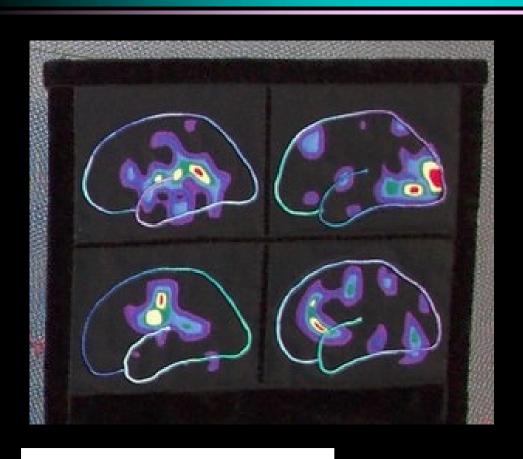




From Clinical Analysis to User Friendly Interface



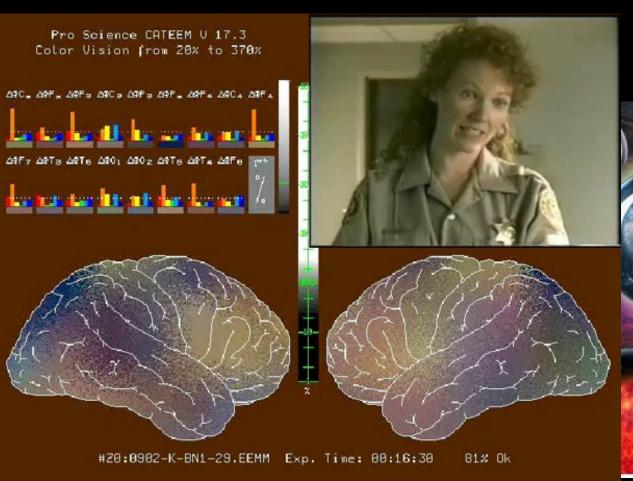
NeuroSky Mind Machine Interface







From pathology – to Enhancement





From Complex Multi-Sensor Array to Commercial Interface

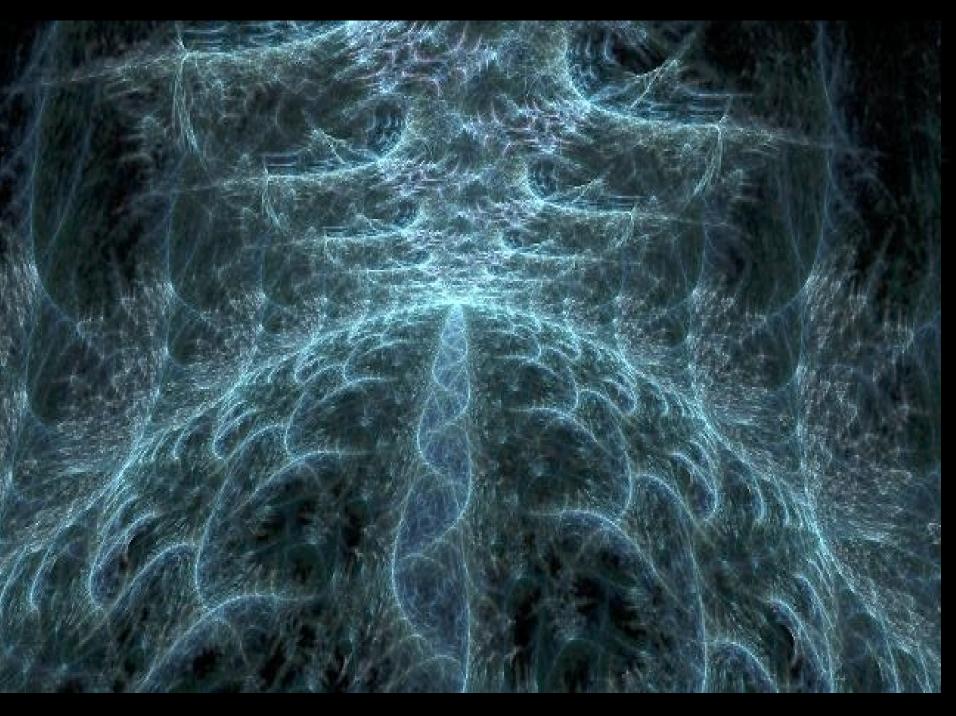


"BrainPaint" EEG to Fractal Image Morphology Engine











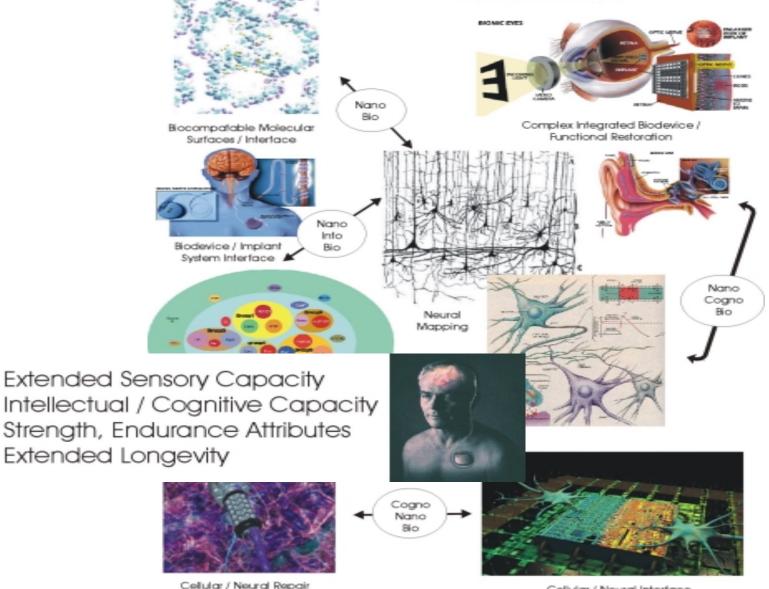


Designed Evolution Nano Bio Info Cogno Dealers Tree Example Implemenation Cycle Co-Evolved Hybrid Hyman Organism / Intelligence VLSI Newwarmph Cogno Natural Neural Network Modeling Nano Bio Nano Bio Hybridized Synthetic DNA Nano Bio Info Complex Self Evolving Neural Network Modeling Complex Profeomic / DNA Nano Nanobiological Neural Computing Systems Bio Network Systems Info Nano Structural Proteomics Bio DNA "circuits" & devices Info Metascale Genomic Modelling / Engineering Nano Bio Info

Evolutionary Proteomic Modeling / Synthesis

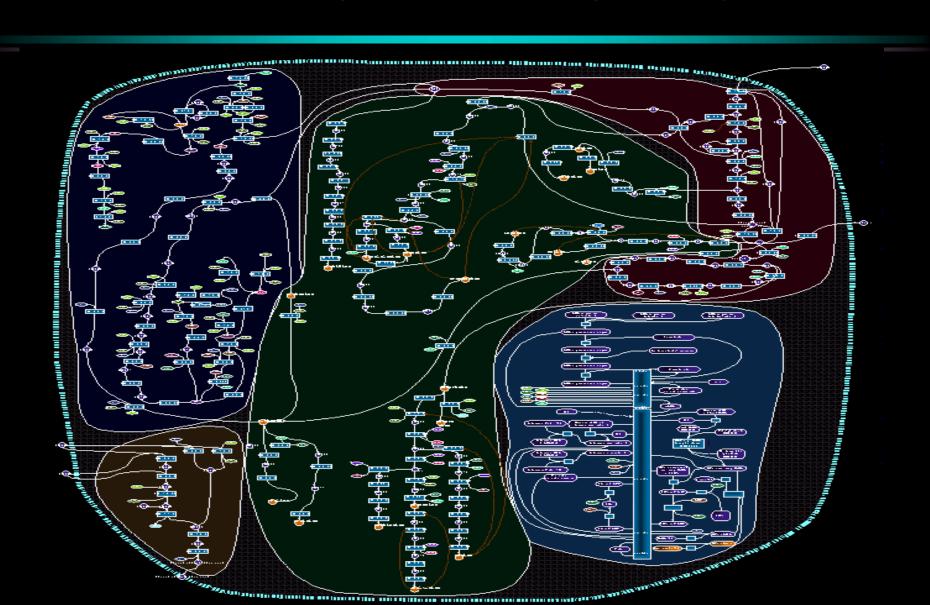
Co-Evolution with Emergent Intelligences Genetic / Biophysical Enhancement Accelerated Environmental Adaptation Extended Longevity & Functionality



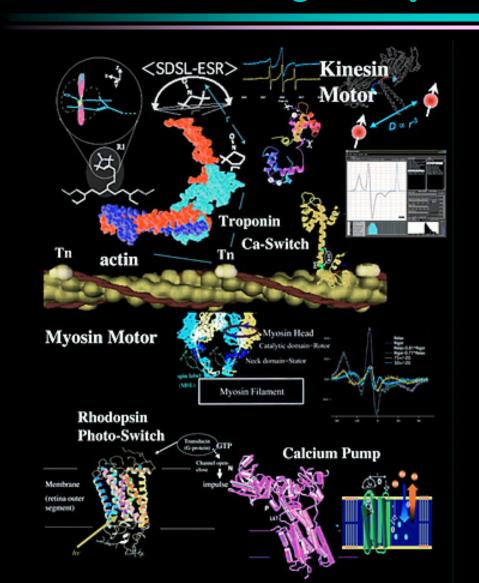


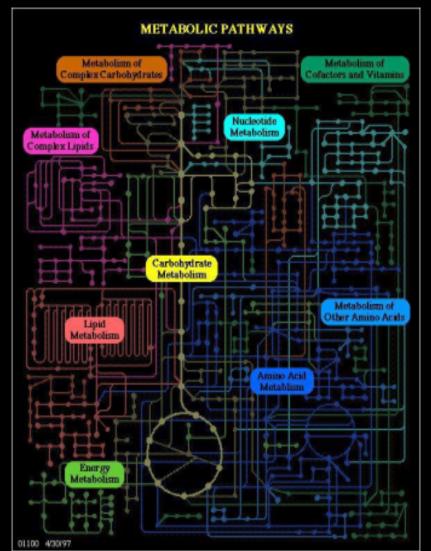
Cellular / Neural Interface

In-Silico Biology – Schematic Engine of Biological Systems

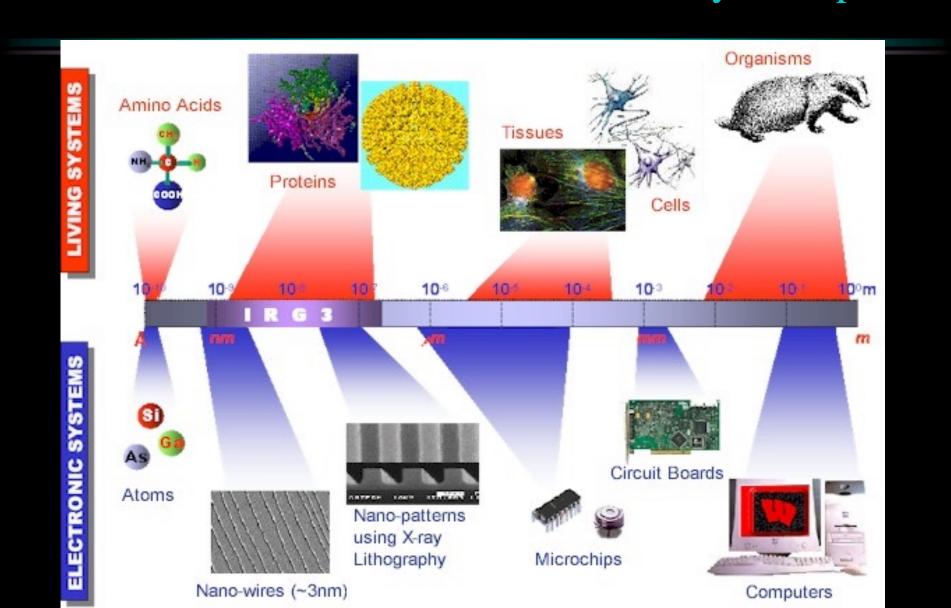


Synthetic Biology Building Blocks > Biological Systems Architectures

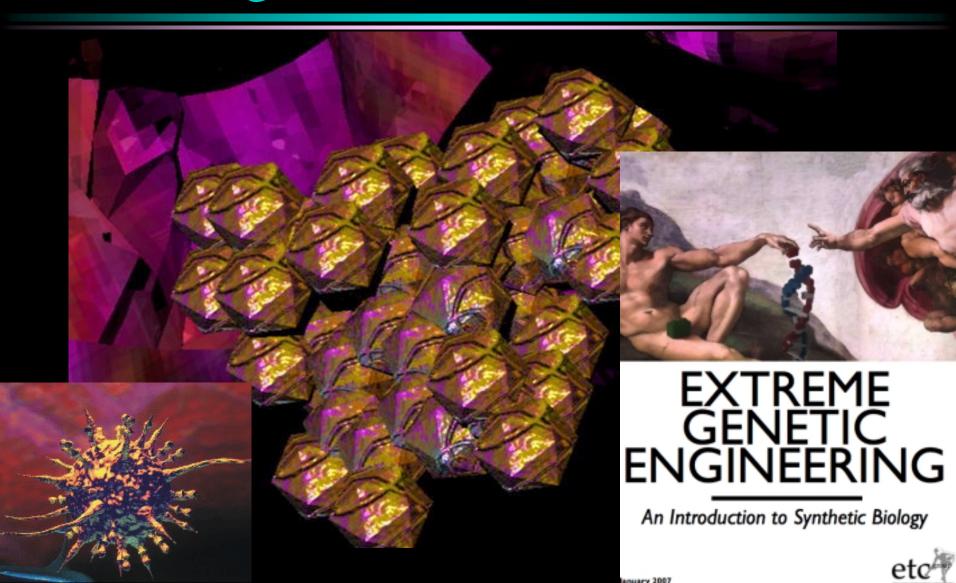




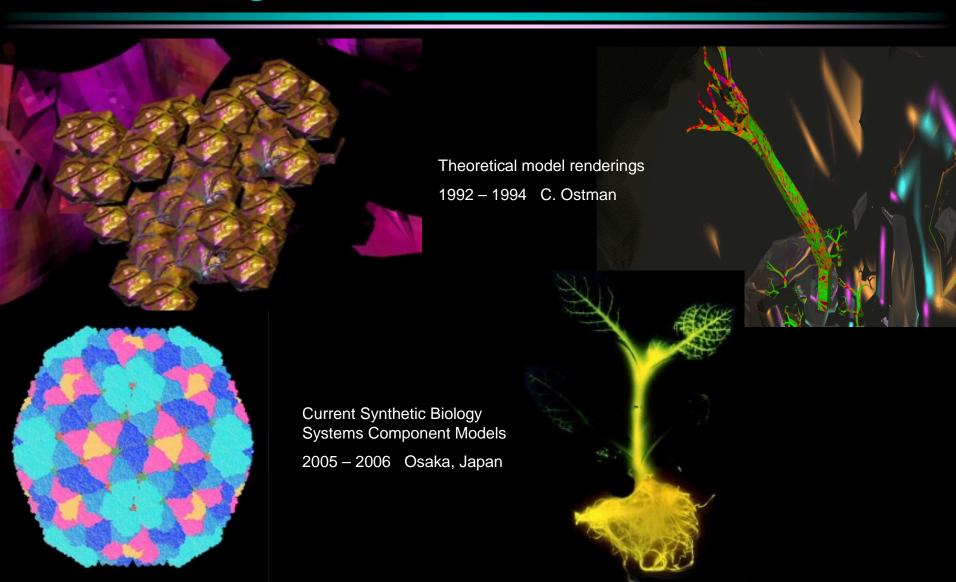
Levels of Scale / Complexity Existence Enhancement as a Commodity Enterprise



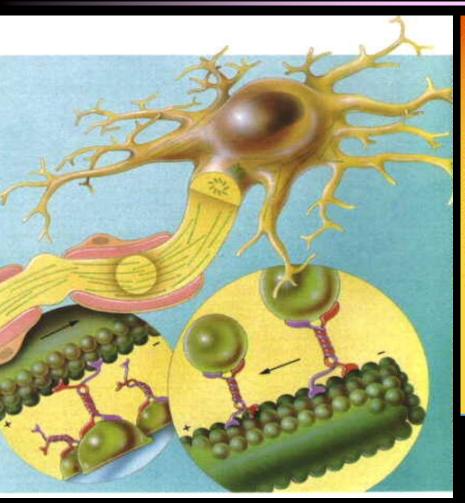
Lifeforms on Demand - the Next Emergent Process Deliverable

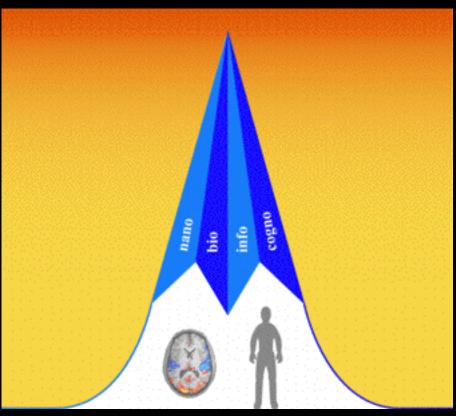


Lifeforms on Demand - the Next Emergent Process Deliverable



The Emergent Infotech / Biotech / Nanotech / Cognotech Operational Ecology





The Emergent Infotech / Biotech / Nanotech / Cognotech Operational Ecology

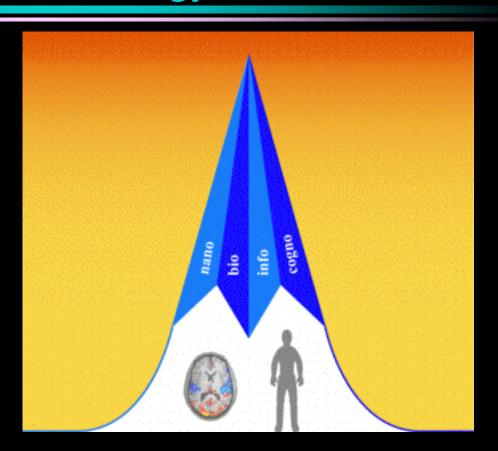
NBIC Conference

Converging Technologies for Improving Human Performance:

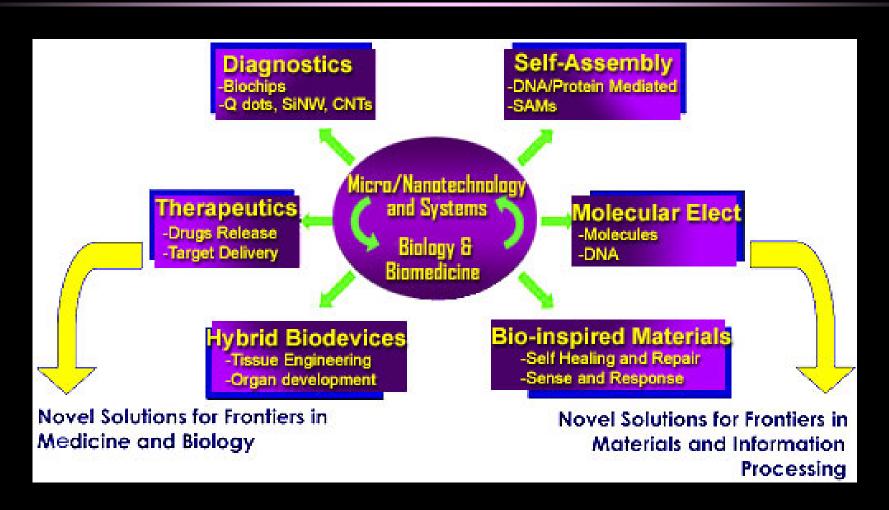
Nanotechnology, Biotechnology, Information Technology and Cognitive Science

NSF/DOC-sponsored report

http://www.wtec.org/ConvergingTechnologies



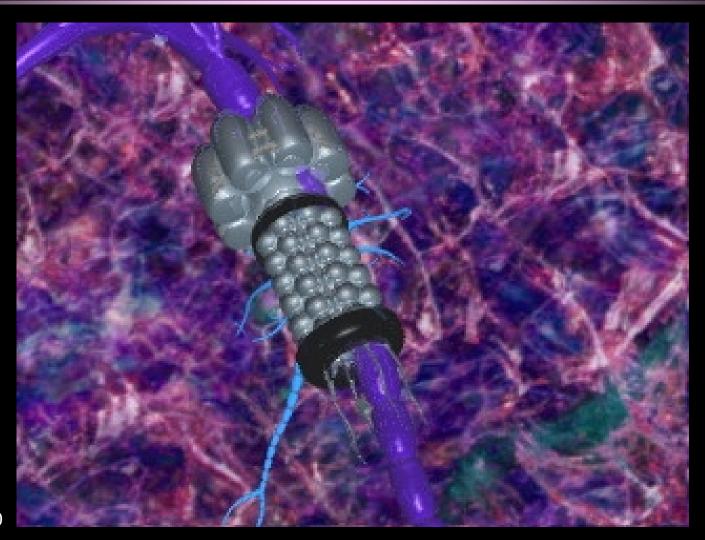
Existence Enhancement – Nano Bio Info Cogno Tech Convergence

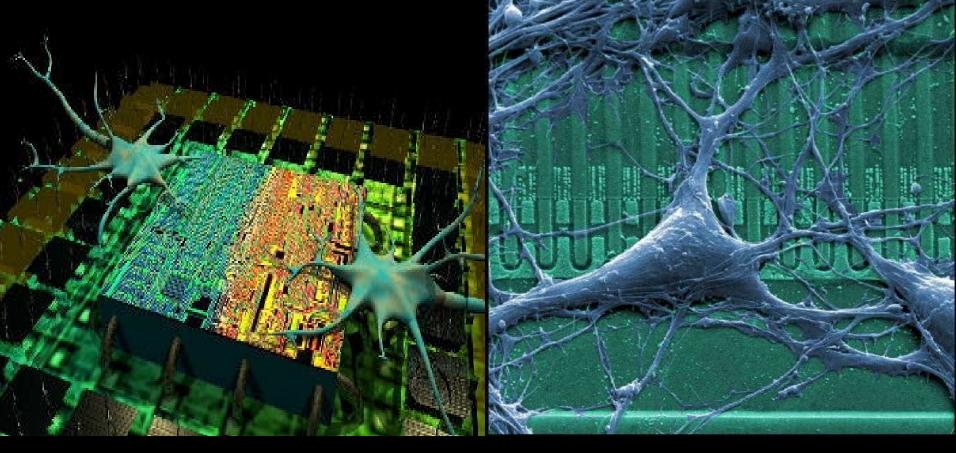


Info Bio Nano Cogno Tech Convergence –



Synthetic Biology . . . How far will this paradigm go?

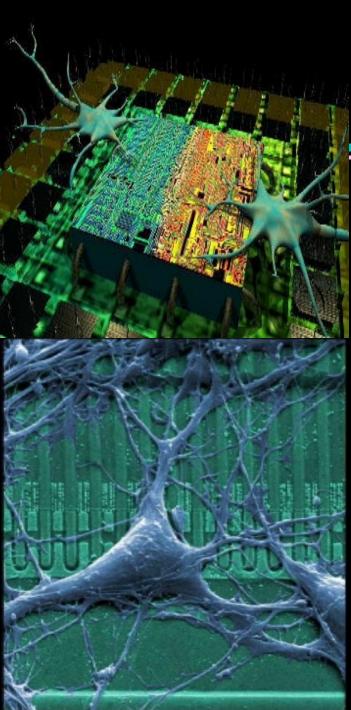




The Evolutionary Eventhorizon where the threshold

boundary point between the real and the virtual, the organic and the synthetic, has become seamlessly infused into an ever evolving symbiosis of our own creation, and what evolves henceforth.

HIPPOCAMPUS REPLACEMENT

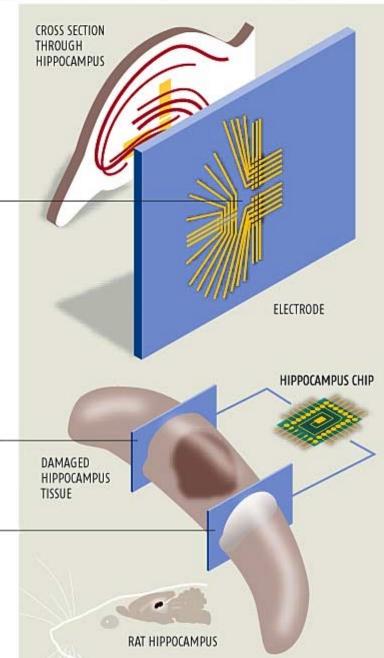


Chip takes over the processing of nervous signals normally performed by the hippocampus

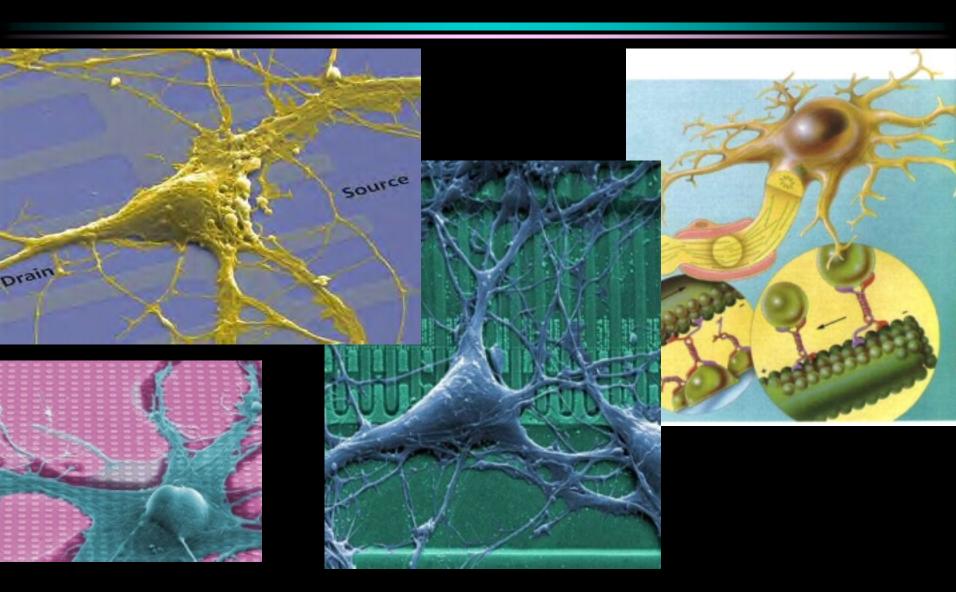
Multiple electrodes are placed on each array. They are positioned to mimic the structure of nerve tissue within a slice of the hippocampus, and make contact with other parts of the brain

Recording electrode array "listens" to neuron activity coming into the hippocampus and feeds it to the chip

Stimulating electrode array delivers the appropriate electrical output to the rest of the brain



The New Frontier - Organic Merges with Synthetic Neuro-Electronic Interface



The New Frontier - Organic Merges with Synthetic

Neuro-Electronic Interface

Researchers' brainchild: Microchip implants boosting mental function

SCIENCE: A USC team works to build artificial neurons that replace abilities lost through age or disease.

By MICHELLE NICOLOSI

The Orange County Register

In a tiny room crowded with electronic equipment five floors above USC's campus, researcher Sunif Dalal spends 12-hour stretches hunched over slices of brain tissue, "talking" to neurons.

For four years, Dalal has been sending electric shocks into these thin pink squares, then tracking the crackle of the captive neuron's electrical reply, transmitted by a receiver threaded into the heart of the neuron like a tiny telephone wire.

Dalal has spent so much time alone here that sometimes it feels as though he is on the verge of understanding the neuron's Morse code.

"It's like when your parents speak another language at home," said Dalal, whose parents spoke an Indian language when he was young. "You'can't speak the language, but somehow you understand."

The work Dalal and others are doing to plot the neurons' answers to an endless string of electrical questions is the key to an unprecedented effort to build bionic brain prostheses that one day may be able to restore functions lost to injury and old age.

While most neuroscientists have labored to understand why the brain works the way it does, the USC researchers are taking a different approach: They're hoping that by tracking how individual neurons communicate, they can restore lost brain functions by implanting computer chips that mimic neuron chatter.

Never mind the whys: "If we can learn the input/output, that's all we need to know," said lead researcher Ted Berger, 46. "We can put them on a chip, and we're ready to go."

If Berger's team can get the brain to talk back to the chips, people who lose memory to old age, are paralyzed after a car accident or lose the ability to speak after a stroke might be able to get lost functions back.

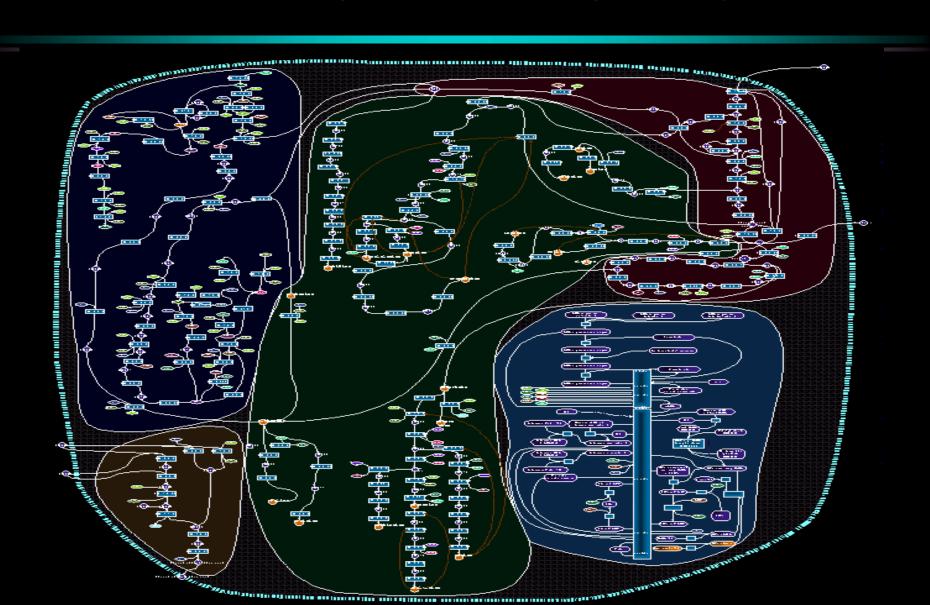
"Everyone grows old with age. Everyone loses their memory," said Dalal, a biomedical-engineering doctoral candidate.

"If we can come up with some-

Please see BRAIN Page 22

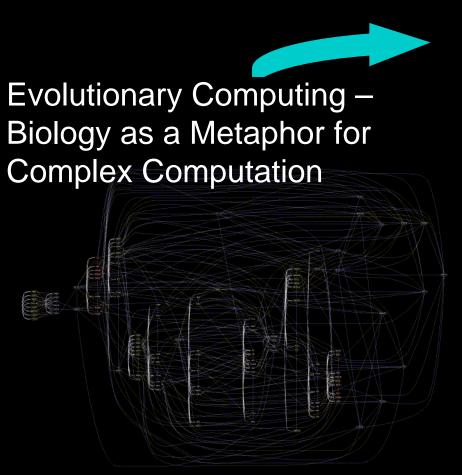


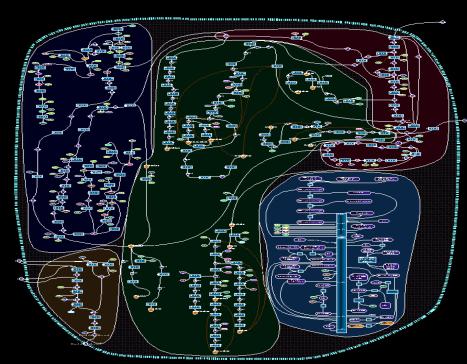
In-Silico Biology – Schematic Engine of Biological Systems



Evolutionary Computation –

Evolved Strategies Mapping Solutions into Domains of Extreme Complexity





In Silico Biology – Computers Modeling Complex Biological Systems

The "emergent Evolutionary" Paradigm -

- Evolution is the engine of autonomous self organization, optimization
- Evolution enables adaptation to contiguous environmental morphology - biomorphology

Adaptive response to evolutionary challenge Proactive, pre-emptive strategic mutation

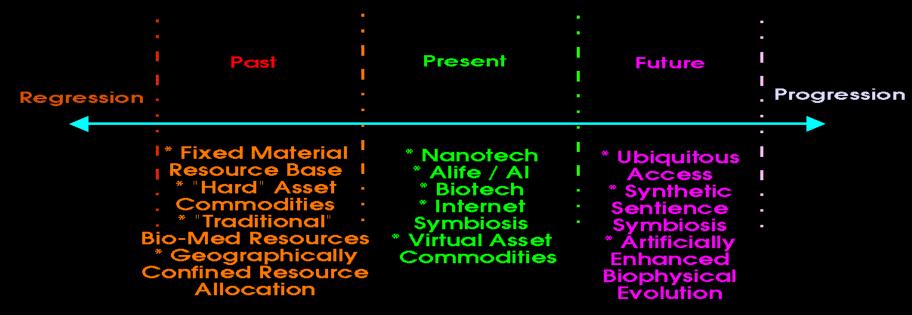
Complexity Management

 Biological metaphors in computing > ubiquitous computing • Reconfigurable architectures > EC / AI / Alife Visualization, Virtualization Symbiotic Immersion Human / Bio-mimicry Systemic Co-Evolution

Complexity Management

- Biological metaphors in computing > ubiquitous computing
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 EC / AI / Alife
- Visualization, Virtualization >
 Symbiotic Immersion
- Human / Bio-mimicry
 Systemic Co-Evolution

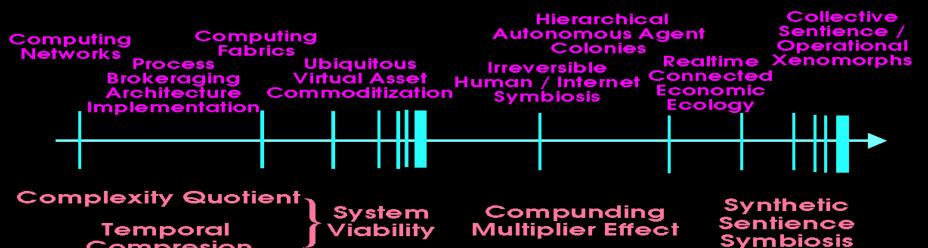
Technology Driven Socio-Anthropological **Evolutionary Threshold Domains**



Evolutionary Eventstream Seminal Markers

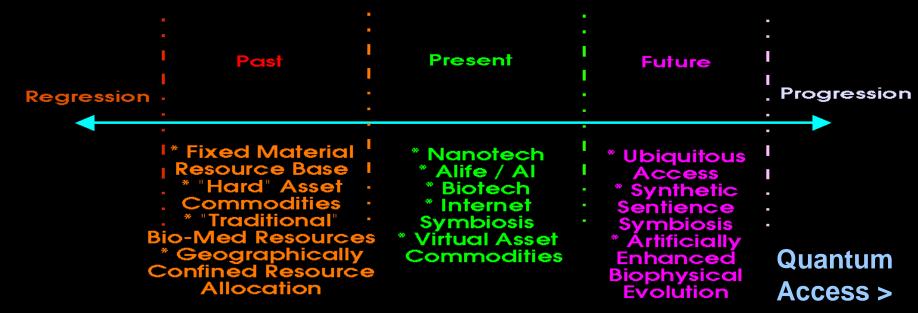
Compresion

Index

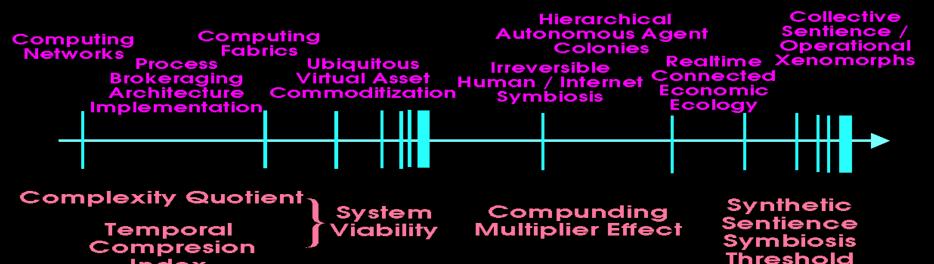


Threshold

Technology Driven Socio-Anthropological Evolutionary Threshold Domains

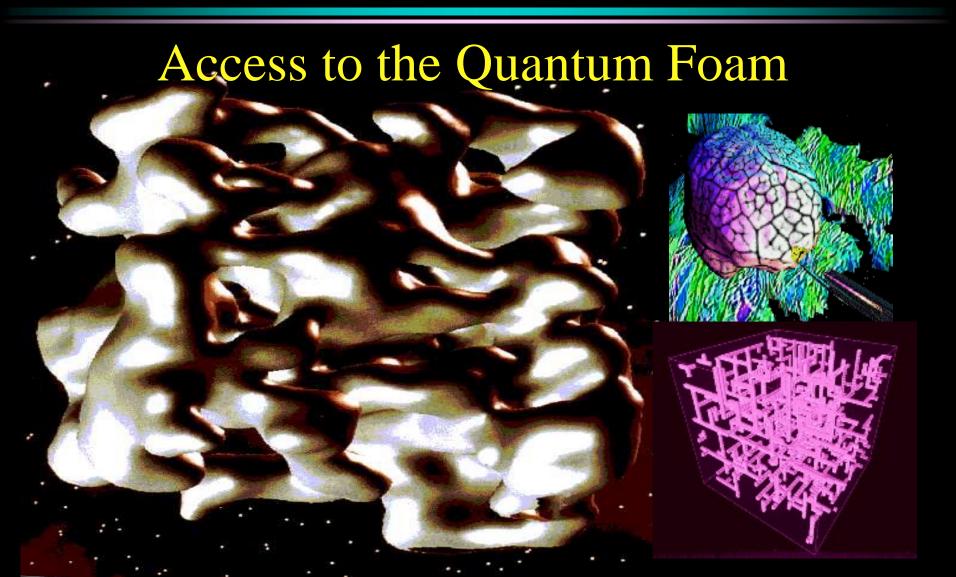


Evolutionary Eventstream Seminal Markers



Index

The Next Evolutionary Eventhorizon Hybrid Forms of Consciousness -



Quantum access — the next increment of n-dimensional evolution



Existence Navigation – Media, Platforms, Portals

Quantum tunneling wavelet state registration signature control with coupled random number ID key generation sample tagging applied via optical mirror inverter feedback signal aligned into the block photon entanglement production stream, which is the ticket to creating a hyper light communication transducer function for establishing and maintaining ultra wide bandwidth pulse communications.

Collection of remote influence factors into a non-spatio-temporal information resonance quantum cycleation engine only requires distribution of the pre-generated generated random number key in any one a number of media expressive modalities for user engagement.

Very much like using random number sets to cue remote viewing, but effected on a multi-participant basis to also proactively stimulate remote influence functions, like healing, on a massive level.

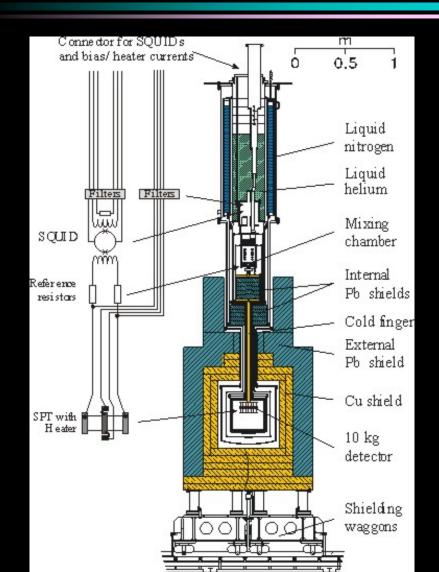
Existence Navigation – Media, Platforms, Portals

Infinity of quantum registration random number states permits any finite indexing schema to be actuated to effectively reference its wholeness or any of its parts, and thus open a totally secure channel for communication between any number of parties. This is quantum implicate-explicate morphic field cueing as a consciousness-to-machine controllable function.

Caveat - this can be used for hurting as easily as healing...

- Bill Moulton

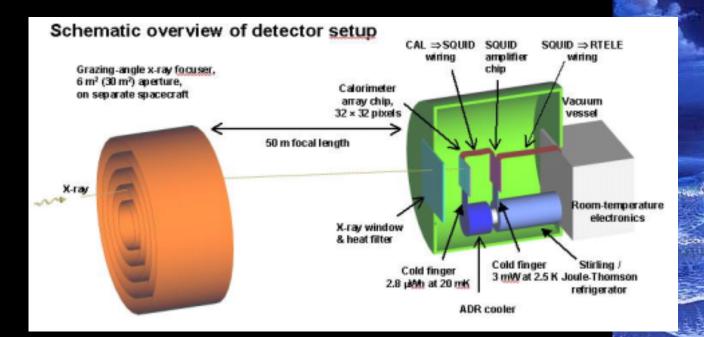
Signal detection using superconducting quantum interference device





Signal detection using superconducting quantum interference device

Technical tools toward spiritual evolution?



Global Consciousness Project

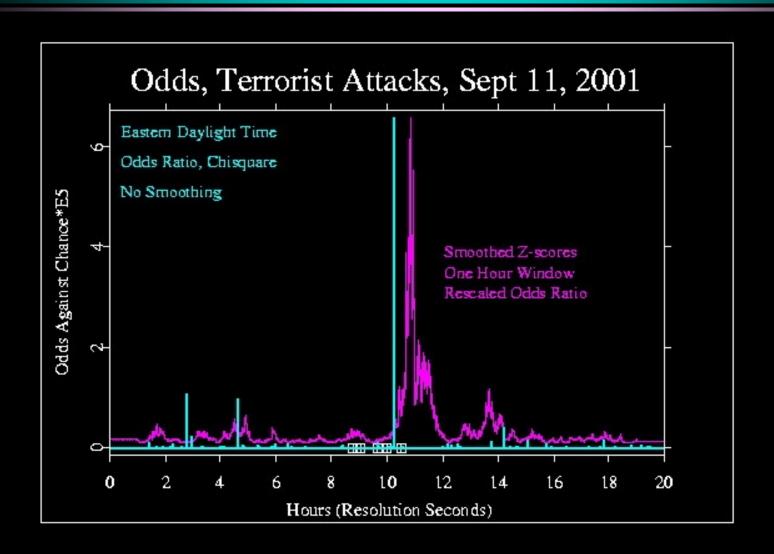
http://noosphere.princeton.edu

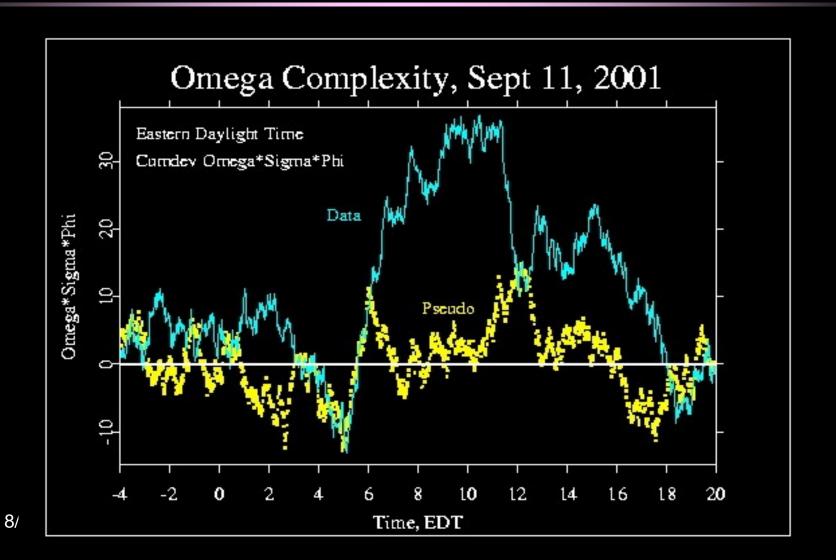
Global Consciousness Project

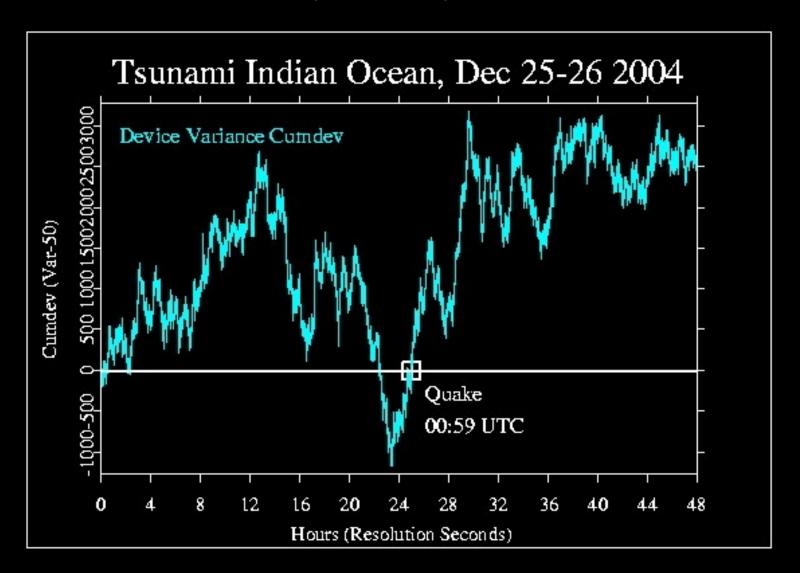
Registering Coherence and Resonance in the World

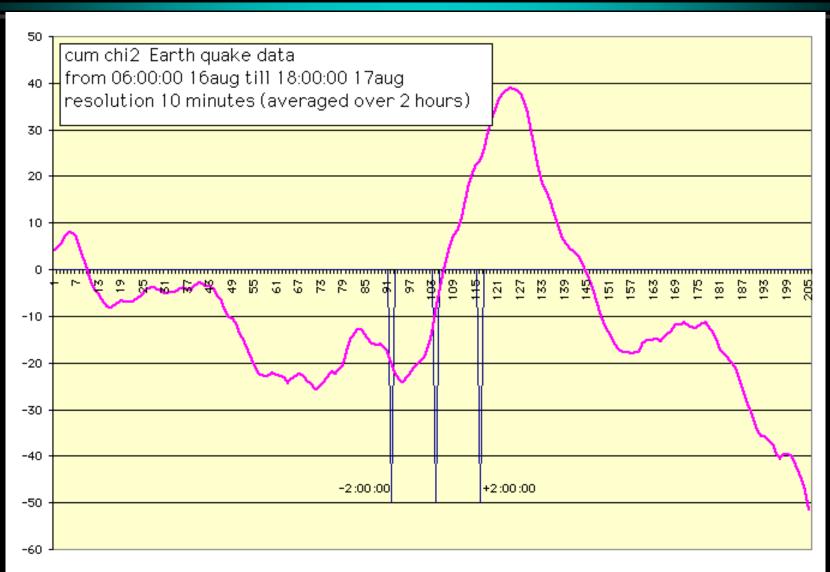
• The Global Consciousness Project We do not feel that our minds are isolated within our bodies. In truth, we experience the world with beautiful immediacy, we know our loved ones from afar, and we leap in thought to the stars. Research on anomalies of consciousness shows that we may have direct communication links with each other, and that intentions can have effects in the world despite physical barriers and separations. Evidence compels us to consider that consciousness may operate as a nonlocal field. The Global Consciousness Project (GCP) takes this possibility a step further, proposing that the fields generated by individual consciousness would interact and combine, and ultimately have global dimensions

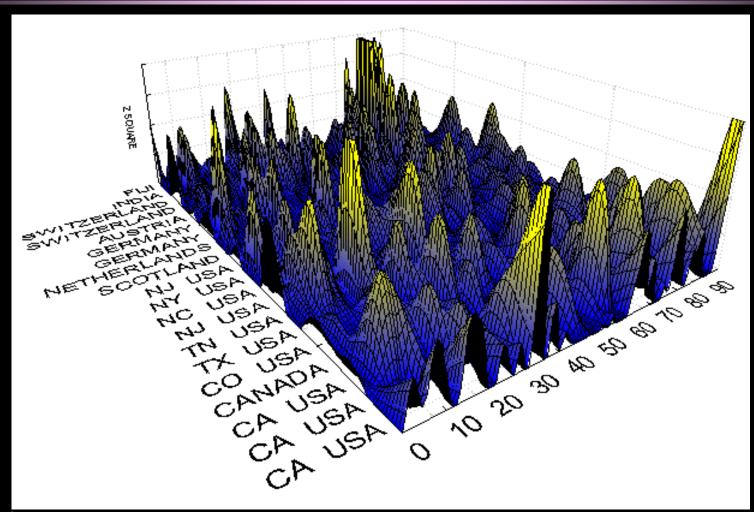
Roger Nelson

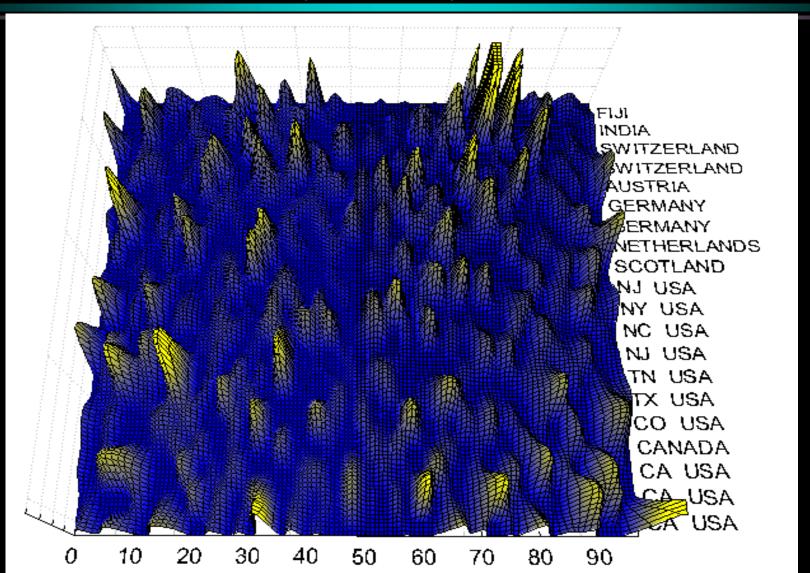




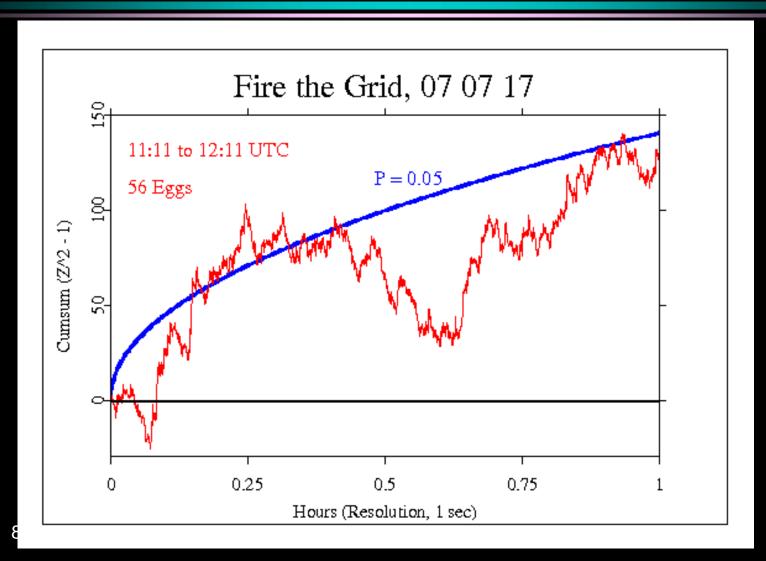


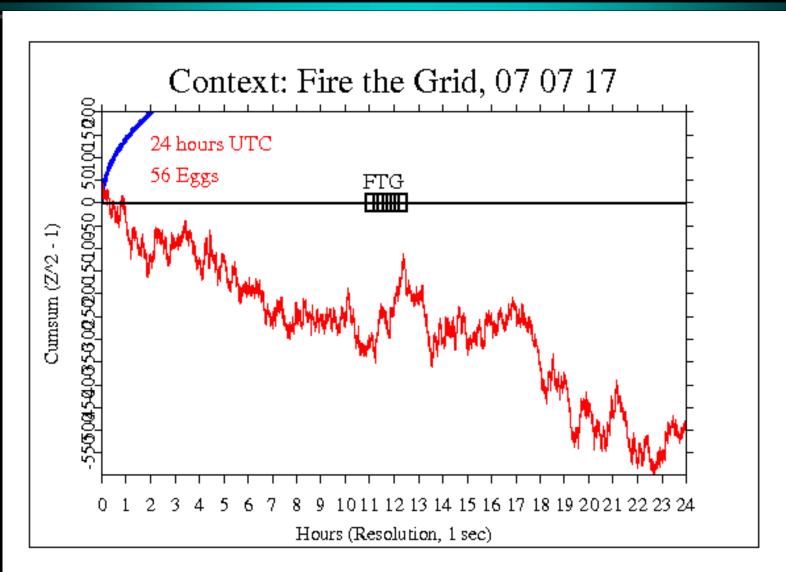


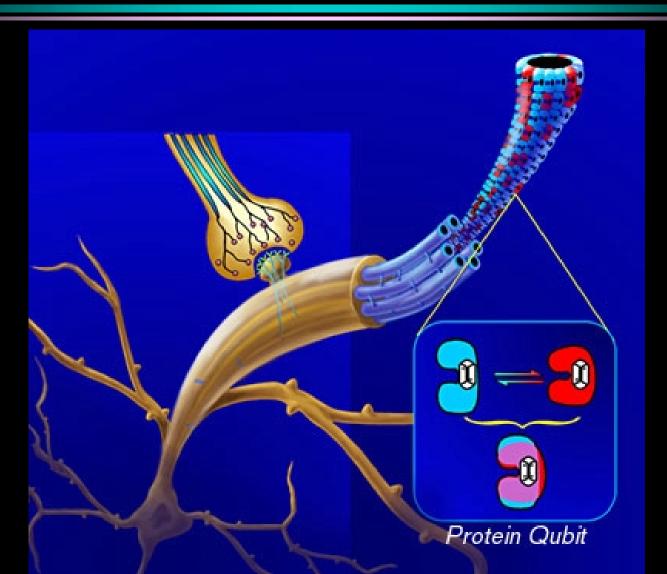




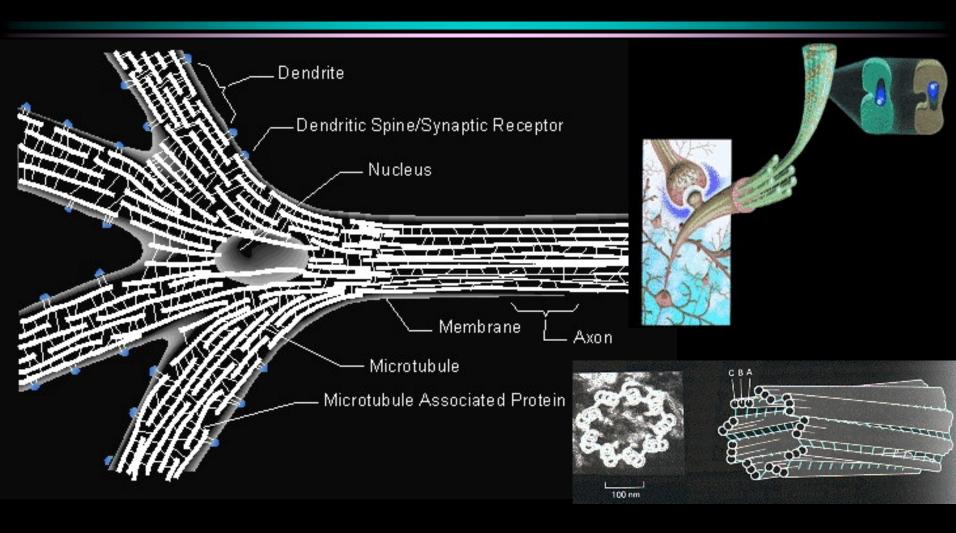








Quantum / Biophysical – Microtubulin / Neural Interface



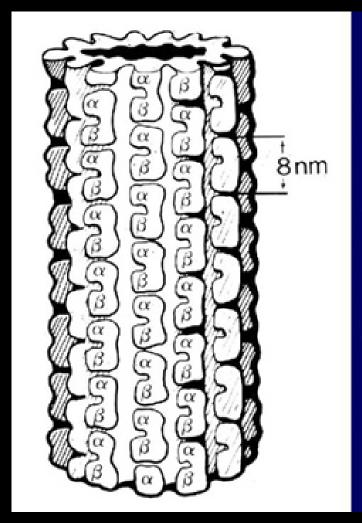
Quantum Brain Dynamics

quantum field-supporting biosubstrate as a dense nanolevel web of protein molecules (microtubules) which penetrates neuronal and neuroglial membrane boundaries

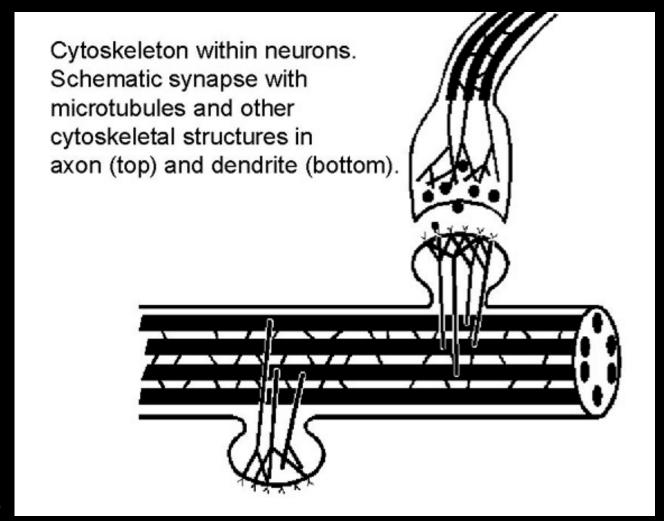
quasi-crystalline ordered water molecules within microtubules and associated with hydrophylic regions on the web of protein filaments, as a biosubstrate for a quantum field which supports super-radiance and self-induced transparency within the

microtubules





Microtubules (MT) are hollow cylinders 25 nm in diameter. MT walls are hexagonal lattices of the protein tubulin. Each tubulin is a 'peanut'-shaped 8 nm dimer consisting of alpha and beta monomers. MT are the major components of the cell cytoskeleton, and self-assemble to determine cell shape and function. X-ray crystallograh from Amos and Klug, 1974.



 Quantum electrodynamics and quantum field theory predict virtual particle/waves ('virtual photons') popping into and out of existence. Quantum 'foam', 'zero point energies' fill spacetime.



Kip Thorne's picture of quantum foam

Casimir (1938) predicted virtual photons could be measured. Lamoreaux (1997) precisely measured 'Casimir force', verifying presence of quantum foam.

Quantum domain interaction – "delayed thought" vs perceived photon activity experiment

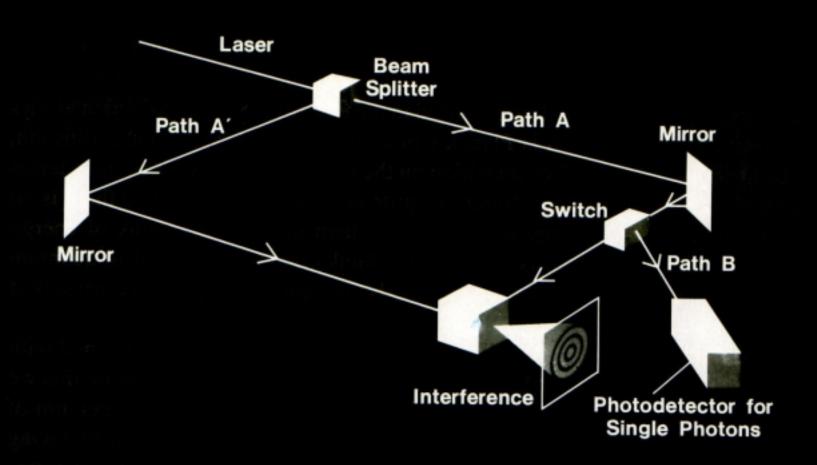
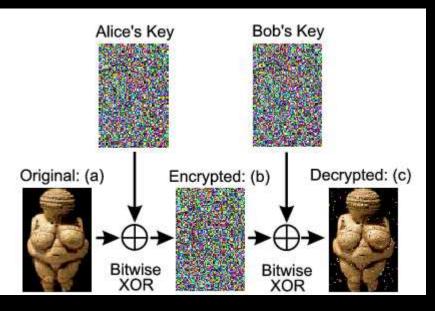


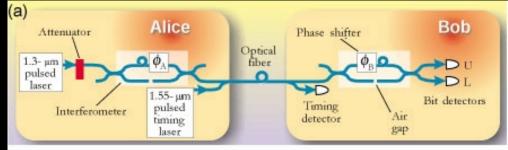
FIGURE 12. A delayed-choice experiment that has been carried out in the laboratory by groups at the University of Maryland and the University of Münich.

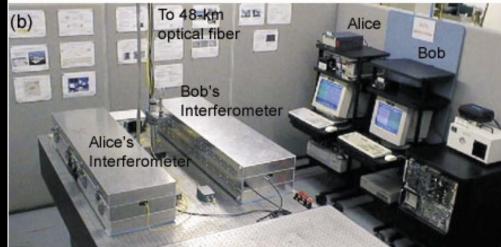
Quantum crypto — the next increment of secure system evolution

• All networks are vulnerable







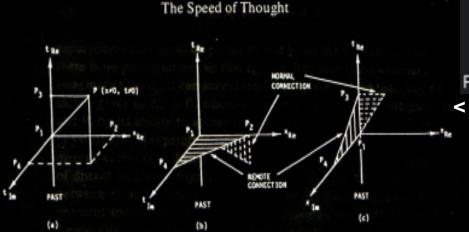


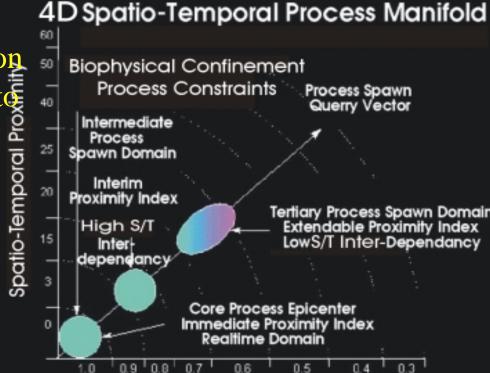
8/6/2010

4D Spatio-Temporal Domain of Biophysical Confinement in Localized Phenomenological Causality Linkage vs 8D / ND Quantum Domain non-Locality Space-Time Metric

The Speed of Thought: Investigation of a Complex Space-Time Metric to Describe Psychic Phenomena Elizabeth Rauscher, Russell Targ

8D "complex Minkowski space"



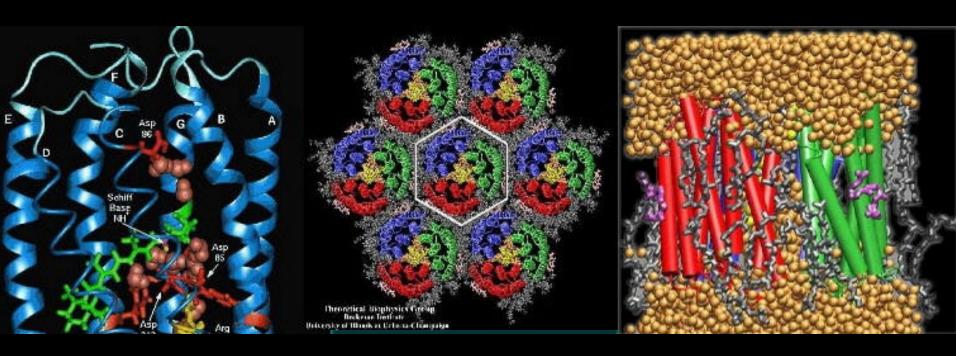


Phenomenological / Causality Linkage Proximity Domains
8D Precognitive perception domain model

- A spatio-temporal separation
- B spatially separated, temporally synchronous
- C temporally separated, spatially contiguous

Nanostructured biomaterials as a dynamic interface for quantum entanglement interaction

- Rhodopsins, other nanobiological organic material systems
- Engineered electro-photonic transition properties



Focussed intentionality amplified and tuned as an instrument of influence for "spawning" the history of our future – system architecture overview

Quantum Entanglement Measurement

Aesthetic Audio/Visual Interface

Collective Internet Enabled Consciousness Grid Computing Enhancement

Non-localized phenomenological mapping

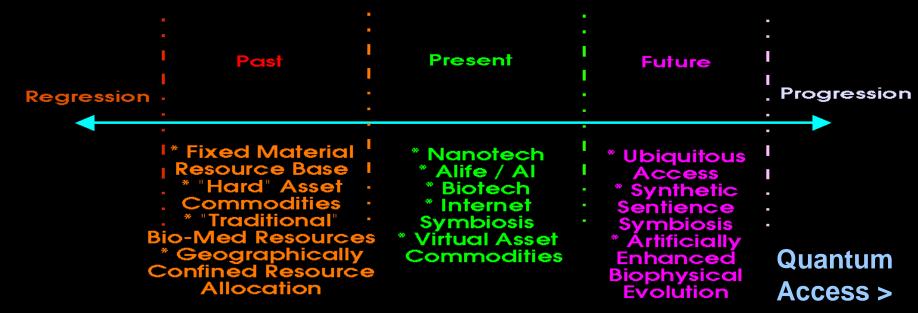
Artifact Extraction Feedback Enhancement

Focussed intentionality amplified and tuned as an instrument of influence for "spawning" the history of our future – system architecture overview

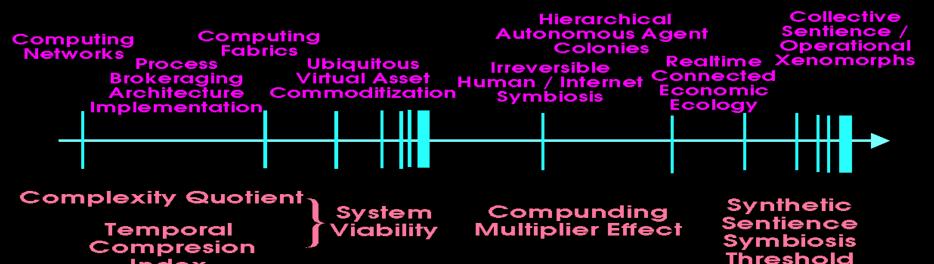
Collective Consciousness Enhancement Evolution of the Hybrid Quantum Meta-Organism



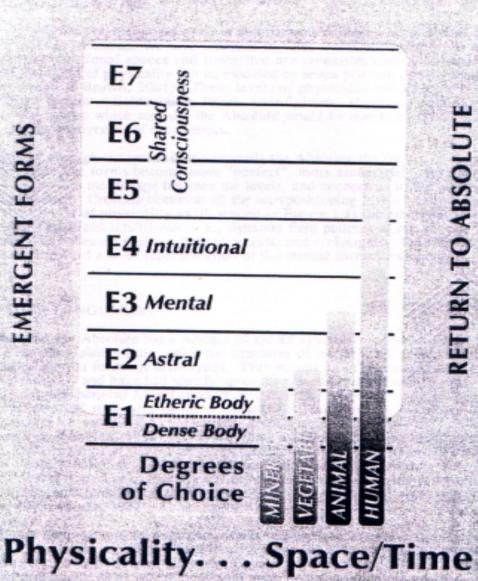
Technology Driven Socio-Anthropological Evolutionary Threshold Domains



Evolutionary Eventstream Seminal Markers



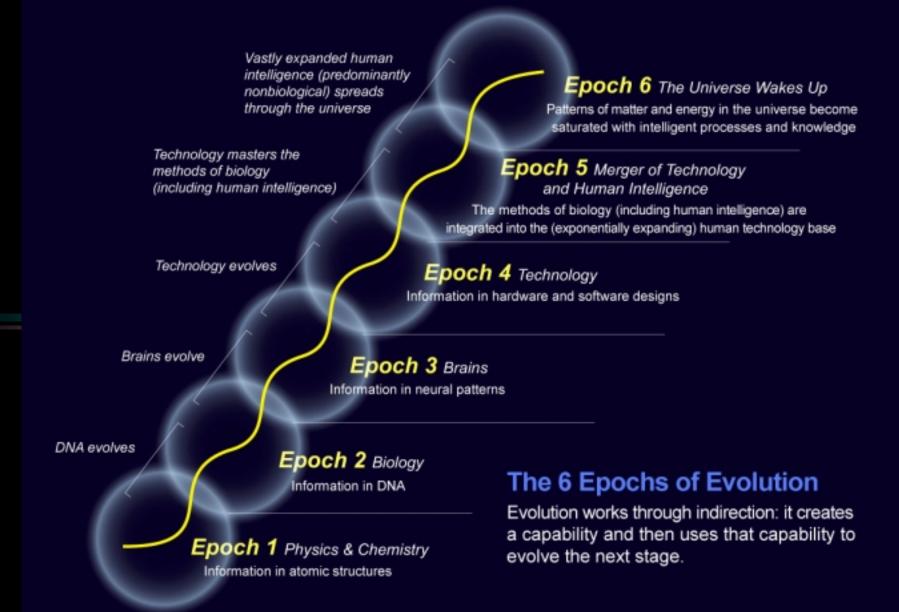
Index



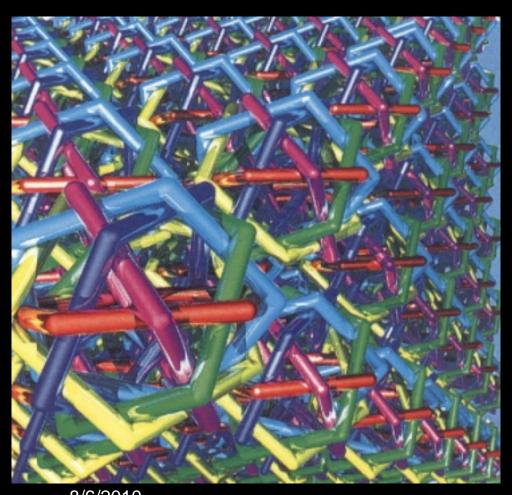
RETURN TO ABSOLUT

Excerpted from: "Domain of Unbounded Potential – The Science of the Absolute"

> William Gough Dean Brown



Michio Kaku Civilization Hierarchy



Type 0 fixed localized resources **Type 1** renewable planetary resources **Type 2** invulnerable to planetary phenomena **Type 3** interstellar travel Type 4 wormholes – transdimensional access to multiple universes

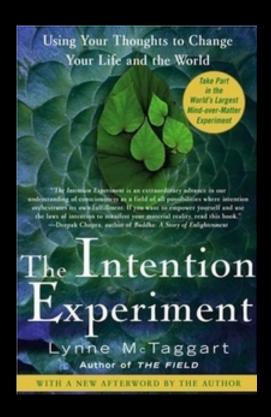
We are Biophysical Manifestations of Entities Dwelling within the Ubiquitous "Quantum Jello" Manifold –

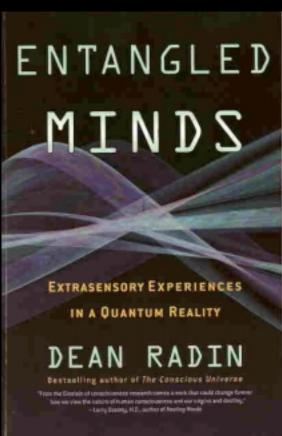
- All Living Things are Interconnected into an non-localized Operational Ecology
- This Planet as a "Living System" is Interconnected into a Cosmological Ecology

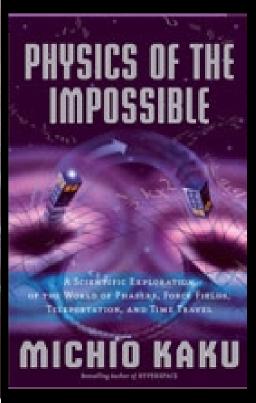




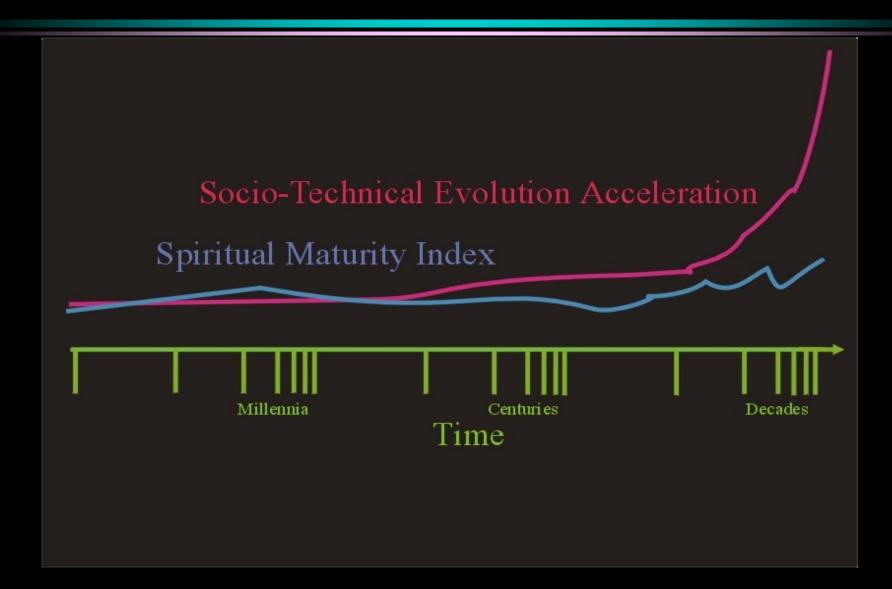
Additional recommended reading . . .



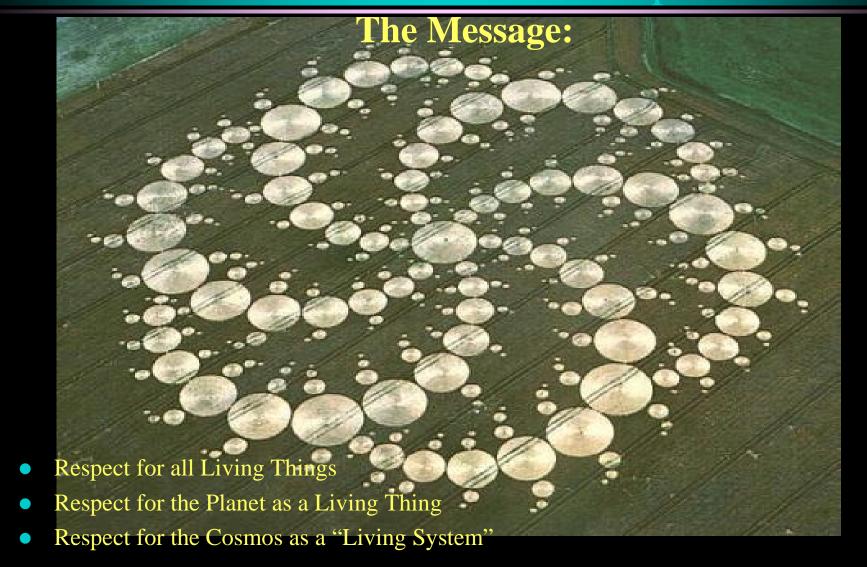




Approaching the Evolutionary Eventhorizon Threshold



Evidence of Physical Manifestations of Communication within the Empathic Web



Biophysics, Quantum Physics & Neuro Aesthetics Research – Applications - Art

