

SPACE TRAVEL INNOVATIONS

A portfolio of space travel-related innovations has been accumulated after two decades of research and collaboration with numerous inventors and scientists – a few of whom may justifiably be ranked among the world's most creative.

Titles of space travel chapters that also relate to energy are magneto-gravitational converter (Searl effect generator), David Burns' anti-gravity flying saucer, Mike Hanson's flying saucer engine, magnetic vortex drive engine, IPMS crystal lattice energy storage/battery device, electricity generators for satellites and spacecrafts, more on the remarkable potential of the torsion field, the magnetic force is faster than light, and IPMS advanced solar photo-voltaic crystal lattice cells.

Other energy researchers can provide similarly extensive compilations of new technologies. Tom Valone's Integrity Research Institute (see <http://users.erols.com/iri/>), <http://www.newenergytimes.com/>, Sterling Allan's http://peswiki.com/index.php/Main_Page, <http://www.infinite-energy.com/>, Jerry Decker's <http://www.keelynet.com>, Bruce Meland's <http://www.electrifyingtimes.com/>, and Russia's <http://www.faraday.ru> have all accumulated large databases of reports and comments on energy. Robert A. Nelson, P.O. Box 19250, Jean, Nevada 89019 amassed 10,000 pages on inventions and other scientific and technological subjects in his www.rexresearch.com – the contents of which are available on a \$13 CD.

Development and commercial manufacturing of a proven new innovation requires competent people, a doable business plan, integrity, and sufficient money to carry the enterprise until it reaches profitability. Each invention may be burdened with the baggage of its own unique little tale. Some inventors may be brilliant, of course, but are otherwise incompetent businesspeople. Development may be hampered by a shortage of resources available to an inventor, unethical investors or associates, an inventor's illness or death, or suppression by existing industries and the tangle-footed US federal government. Shortcomings in the invention itself may need further research to be mitigated or eliminated, if possible.

New inventions typically do not qualify for financial support from venture capital, large corporations restricted to operating within their chosen missions, charitable foundations, and governments unaware of or even hostile to unconventional inventions. Some state governments have chosen to encourage innovation by mitigating losses by private investors.

A search of this compilation of Space Travel Innovations for 'cancer' will Find five chapters, a search for 'healing' will Find eight chapters, and a search for 'reverser of aging' will Find one chapter. However, the US Food and Drug Administration may not have approved these technologies for treatments. Patients should first consult their licensed physicians before attempting any self-treatments with these technologies.

Please respect the intellectual property rights of the current copyright/patent holders pertaining to these inventions by obtaining their written permission before using or selling their inventions.

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Blinded to the Future¹

"Heavier-than-air flying machines are impossible." --- (Lord Kelvin, president, Royal Society, 1895)

"I think there is a world market for maybe five computers." --- (Thomas Watson, chairman of IBM, 1943)

"There is no reason for any individual to have a computer in their home." --- (Ken Olsen, president, chairman and founder of Digital Equipment Corp., 1977)

"The telephone has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us." --- (Western Union internal memo, 1876)

"Airplanes are interesting toys but of no military value." --- (Marshal Ferdinand Foch, French commander of Allied forces during the closing months of World War I, 1918)

"The wireless music box has no imaginable commercial value. Who would pay for a message sent to nobody in particular?" --- (David Sarnoff's associates, in response to his urgings for investment in radio in the 1920's)

"Professor Goddard does not know the relation between action and reaction and the need to have something better than a vacuum against which to react. He seems to lack the basic knowledge ladled out daily in high schools." --- (New York Times editorial about Robert Goddard's revolutionary rocket work, 1921)

"Who the hell wants to hear actors talk?" --- (Harry M. Warner, Warner Brothers, 1927)

"Everything that can be invented has been invented." (Charles H. Duell, commissioner, US Office of Patents, 1899)

"The [flying] machine will eventually be fast; they will be used in sport, but they are not to be thought of as commercial carriers." -- Octave Chanute, aviation pioneer, 1904.

"The ordinary 'horseless carriage' is at present a luxury for the wealthy; and although its price will probably fall in the future, it will never come into as common use as the bicycle." -- The Literary Digest, 1889.

"[It] is, of course, altogether valueless.... Ours has been the first, and will doubtless be the last, party of whites to visit this profitless locality." -- Lt. Joseph D. Ives, Corps of Topographical Engineers, 1861, on the Grand Canyon.

"Landing and moving around on the moon offer so many serious problems for human beings that it may take science another 200 years to lick them." -- Science Digest, August, 1948.

"X rays are a hoax." "Aircraft flight is impossible." "Radio has no future." -- Physicist and mathematician Lord Kelvin (1824-1907)

"The bomb will never go off, and I speak as an expert in explosives." -- Adm. William Leahy, U.S. Atomic Energy Project, 1945.

"Computers in the future may weigh no more than 1.5 tons." -- Popular Mechanics, 1949.

"We don't like their sound, and guitar music is on the way out." -- Decca Recording Co., in rejecting the Beatles, 1962.

¹ <http://www.keelynet.com/shoulders/>
Space Travel Innovations

BRIEF SUMMARIES

New Space Propulsion Technology to Lift Payloads into Orbit with 99% Cost Savings per Kilogram – Rockets would have 8,000,000 pounds of hydrocarbon fuel replaced by one pound of fuel. The basis for this new propulsion technology is a stable plasma spiral toroid similar to ball lightning that remains stable in partial atmosphere with no magnetic fields for containment.

Magneto-Gravitational Converter (Searl Effect Generator) – The magneto-gravitational converter (Searl effect generator) apparently can create a strong anti-gravity field in addition to generating electricity. It comprises of three concentric magnetic rings with magnetic rollers rolling around the rings. Both the rollers and rings are comprised of four layers of titanium, iron, nylon, and neodymium.

David Hamel's Gravito Magnetic Device – The gravito magnetic device encloses opposing magnetic fields that have varying vector angles to produce a strong anti-gravity field.

David Burns' Anti-Gravity Flying Saucer – A four-foot model of a self-propelled flying saucer flies under remote radio control. Its anti-gravity field is produced by a circular mechanism inside its relatively thin body.

Mike Hanson's Flying Saucer Engine – A field theory is unified with projective geometry. Gravity is this; the atom/element in question which exists only between a particular format of bosons will make a 'dent' in space. These 'dents' will attract one another because in the constant noise of space (particle noise in the passage of time) each gives a signature wave. A machine with the ability to cause dead space of format 3 to convert suddenly into format 7 would make a temporary and artificial type of weight.

Four types of dematerializers could neutralize radioactive waste using highest powered positive ions ever. Injuries may heal many times faster by inhaling free particles from the tissue upon the point of direct contact with superpositive ions.

Crop circle photos are shown of format 3, 4 and 6(?) atoms and transmission and reception of a lightwave. In particular a photograph of a crop circle is shown which exactly depicts the design of a flying saucer engine which comprises of a triangle of three anti-gravity spheres and one dematerializer in the center.

Superpositive charging of hydrogen will align it to crystalline structure for a few seconds. During this period, any electrical spark will fuse the atoms of hydrogen with great speed. One possible application of crystallized hydrogen is fuel for self-confined thermonuclear reactions.

Magnetic Vortex Drive Engine – Magnetic fields are manipulated to create a magnetic analog of the Schauburger principle of vortex cavitation. The field created by both expanding and compressing local magnetic fields propels a craft as if it were falling into a hole (one created magnetically).

Review of H. David Froming's Research Papers on Breakthrough Propulsion Physics –

Propulsion Requirements for a Quantum Interstellar Ramjet

Use of Vacuum Energies for Interstellar Spaceflight

Field Propulsion for Future Flight

Inertia Reduction, and Possible Impulsion by Conditioning Electromagnetic Fields

Orgone Energy Motor – Dr. Wilhelm Reich in 1948 built a 'synchro' type of electrical spinner motor to run from both an orgone energy accumulator and an orgone-charged high-vacuum tube.

Orgone Energy Accumulator for Anti-Gravity – Joe's orgone energy cells and the Moe-Joe orgone energy cells are thought by some people to operate as orgone energy accumulators. Anecdotal reports by orgone energy accumulator experimenters have included observations of weak to moderate anti-gravity effects.

Joe's Orgone Energy Cell – The Joe's orgone energy cell comprises of two metal containers, one inside the other. Both containers are filled with specially charged and cleaned water with the inner container perforated to allow water to freely move between the inside and outside of the inner container. The outside container is electrically connected to the anode of a battery, and the inner container connected to the battery's cathode. The outside container is closed except for an orifice to which a thin pipe is attached. The other end of the pipe is attached to the outside housing of the carburetor. Orgone energy is transferred to the carburetor through the pipe.

At least fourteen vehicles in Australia have been fitted with different versions of Joe's orgone energy cells to be driven without fuel nor battery charging. The engine's power doubles over that when petrol-fueled.

Moe-Joe Orgone Energy Cell – The Moe-Joe orgone energy cell is a spherical version of the Joe's orgone energy cell with four concentric shells. In spring 2008 a Moe-Joe orgone energy cell was installed in a 1993 Saturn. Orgone energy was transferred from the cell through a tube into the engine via its PCV valve intake. The Saturn's mileage jumped from 30 MPG to 47 MPG, and its exhaust pollutants dropped by 90%.

Inertia-less Craft and Artificial Gravity – Gordon Ziegler has invented inertia-less craft and artificial gravity in addition to the electrino fusion power reactor and a reverser of aging, disease, and decay processes.

Can the Vacuum be Engineered for Spaceflight Applications? – Various proposals for tapping the zero-point vacuum energy field for spaceflight are surveyed.

Warp Drive Would Travel Faster than Light – The Alcubierre drive, as it is known, involves expanding the fabric of space behind a ship into a bubble and shrinking space-time in front of the ship. The ship would rest in between the expanding and shrinking space-time, essentially surfing down the side of the bubble. The tricky part is that the ship wouldn't actually move; space itself would move underneath the stationary spacecraft. However, warp drives apparently would require literally astronomical amounts of energy.

Anti-Gravity Ether Shield – Anti-gravity ether shield segments can be placed around the nose cone of a rocket for forward propulsion.

Ether Telescope – An ether researcher from Venezuela has developed an ether telescope without glass lens.

Domestic Lens – The Domestic Lens™ is a large, lightweight, thin and inexpensive lens for the optical industry. Telescopic large-diameter lenses can have adjustable focal lengths. The abrasion resistant Domestic Lens™ would be as much as 50 times lighter than traditional lenses. They would be of higher resolution than Fresnel lens.

Meta-Stable Helium as Rocket Propellant – When a micro-crystal of meta-stable helium is triggered by the right frequency of laser light, it will return to the form of gas as if it had been compressed by tens of millions of atmospheres of pressure. It will release 43 times more energy per unit weight than any conceivable chemical combination. With meta-stable helium as fuel, a rocket could take a 50-percent payload to Mars and back in two weeks. (Accelerate there and return at one gee.)

Ground Transportation for Colonies on Mars and Earth's Moon – A colony on Mars or Earth's moon with more one building would require ground transportation between the buildings. Analysis shows that overhead light suspended rail would be more practical than individual vehicles being driven between the buildings on the ground. Compensating for weak gravity, mining equipment could brace themselves against an elevated rail's structural supports when digging trenches for subways or valuable ores in the ground.

Space Drive Engine – The space drive engine provides unidirectional thrust generated by a rotating gyroscope moved alternately to and fro along the thrust vector direction while precessing the gyroscope as it moves in one direction but not precessing it in the opposite direction.

IPMS Thermal Electric Cooling Devices – The IPMS developed specially designed capacitors which absorb energy when subjected to a flow of electrical current – producing a cooling effect. All other known materials generate heat from electric current. Temperatures of -259 degrees Fahrenheit have been produced.

Low-Temperature Diamond or Titanium Nitride Coating of Vehicle Parts – Nondestructively coating rocket parts with diamond or titanium nitride would enhance durability. The diamond deposition system and process can also be used to manufacture diamond-based semiconductor devices.

IPMS-Chernovitsky Super Ceramics – IPMS-Chernovitsky developed uniform moldable, machine-able, ultra-high temperature, super-hard, and strategic metal-alloyed ceramic substances. These can be utilized in entirely ceramic internal combustion engines, rocket engines, high-speed turbines and self-lubricating bearing surfaces.

IPMS Micro-Channels and Filters – This is a family of micro-channel and filter materials with uniformly controllable orifices as small as .5 micron from combinations of carbon-fiber, basalt, ceramic and strategic metals – including stainless steel, scandium and chromium. Applications include heat exchangers, catalysts and separation of gases on a molecular level.

IPMS High-Temperature Gas Plasma Detonator – A test vehicle made with IPMS-manufactured basalt/carbon fiber foam body/frame parts was reportedly the only vehicle ever tested that can cut through a cast-iron London taxicab in a collision. For many years the Russians have manufactured basalt fiber-reinforced metal-alloyed outer cases, frames and fuel tanks for their huge rocket boosters which are extremely strong, very light weight, have no gaskets or seams and can be reused over and over again.

IPMS Crystal Lattice Energy Storage/Battery Device – Requiring only 15 to 30 minutes to recharge, IPMS crystal lattice batteries produce the same current and voltage levels throughout 98% of their discharge cycle. They produce no heat during discharge, regardless of the rate at which they are discharged. Their quick recharge capability allows them to easily capture regenerative braking energy, extending the vehicle's range. Their energy densities of between 850 and 1050 watt-hours/kg are about a third more than gasoline's energy density of between 550 and 600 watt-hours/kg. They operate well in the temperature range of -40 to +60 degrees centigrade. A side benefit is that they are made only of proprietary materials which are environmentally friendly, plentiful, and inexpensive.

Electricity Generators for Satellites and Spacecrafts – Electricity for satellites and spacecrafts is often generated by photovoltaic cells. The Russians have employed IPMS advanced solar photo-voltaic crystal lattice cells. Spacecrafts destined for deep space where sunlight is weak are usually powered by thermoelectric devices which convert thermal energy from radioactive substances such as plutonium into electricity. Summaries of 26 other generators possibly appropriate for space travel are presented.

IPMS-Kiev and Arzamas-16 Super Magnets – Arzamas-16 in Khazakstan and IPMS-Kiev have developed a family of powerful magnets that can operate at high temperatures – up to 250 degrees centigrade.

Nevada Incubator of Russian Inventions – A Nevada-based incubator of Russian inventions would offer support services including translators, an extensive research library of Russian scientific periodicals and books, and Russian-speaking support staff. Partnerships could be established between Russian scientific research institutes and engineering companies, Nevada colleges and universities, and Nevada companies

engaged in developing and manufacturing new energy sources, advanced self-charged electric vehicles, radioactivity neutralization methods, and space travel-related inventions.

Introduction to the Torsion Field – The remainder of this compilation of Space Travel Innovations is devoted to torsion field physics, torsion field communications, and observed exotic phenomena which may or may not be manifestations of or related to the torsion field. The torsion field potentially would enable instantaneous holographic transmission of information across vast astronomical distances.

What is the Torsion Field? – Electromagnetism is produced by charge, and gravity is produced by mass. A torsion field is produced by the *spin* of a mass, whether it is an electron or as large as a star. Electromagnetic fields such as light, radio, and magnetism are vector fields in that they possess both magnitude and direction of propagation. Gravitational fields are also vector fields with both magnitude and direction. Torsion fields are scalar; they only have the property of magnitude. Torsion fields operate independently of direction. They also have the extraordinary property of holographically operating throughout the *entire* Universe without respect to time nor distance.

Torsion Field Communications Prototype – The theoretical maximum capacity of torsion field communications is apparently 40 billion channels of three-dimensional holographic television with a speed faster than one billion times the speed of light through the entire earth without attenuation. A unique design has been developed for a counter-rotating torsion field generator based on a newly patented micro-solenoid technology, counter-rotating mono-polar magnetic plates, mono-chromatic standing wave lasers, and some scalar parallel processor technologies from the Swiss Institute of Technology in Zurich. A prototype has been built and then dismantled. The objective of building the prototype was to universally transmit information through the entire earth at many times the speed of light with a bandwidth wide enough to allow transmission of three-dimensional holographic video on 16.7 million separate channels. A photograph of the prototype torsion field generator is shown.

Status of Torsion Field Communications – The US Air Force may be controlling drones in southern Asia and the Mideast from Nevada via torsion field communications channels. It takes two stationary satellite hops to communicate with the drones – 23,000 miles up and down twice. That adds up to over a sometimes intolerable half-second delay. The US Navy may also be communicating with their undersea submarines via torsion field channels. Commercial torsion field communications is still an immature technology that would require many first-rate engineers and several million dollars to prepare patents and prepare it for licensing.

Torsion Fields Models – A model is proposed of the physical vacuum, taking into account the existence of fields generated by classical spins or angular momenta of rotation.

Making Exotic New Materials with Torsion Field – At the I.N. Frantsevich Institute for Problems of Materials Science (IPMS) in Kiev, Ukraine, scientists have for more than 25 years used torsion field generators as an essential component of the apparatus used to manufacture exceedingly exotic materials, for which there are no comparable products in the West. These include mono-molecular powdered metals, solid-state energy accumulators and certain varieties of atomically engineered carbon. The IPMS has also perfected the use of a specially modulated torsion field device to manufacture mono-molecular powders of strategic metals. Using this revolutionary manufacturing method, metals can be stored in conventional glass containers without involuntarily generating static electricity.

More on the Remarkable Potential of the Torsion Field – Torsion field physics apparently form the basis for advanced extraterrestrial civilizations.

Is Holy Ghost's Influence Transmitted via the Torsion Field? – The number of stars in the Universe exceeds the number of grains of sand on all the world's beaches and deserts. For the Holy Ghost to be able to simultaneously monitor and influence humans and possibly other human-like beings everywhere in the Universe clearly requires a medium of transmission altogether different from the relatively slow velocity of electromagnetic field propagation.

Certain anomalous observations such as Reiki healing, the intergenerational migration of monarch butterflies, extrasensory perception, dowsing for water, the survival of our minds after death as possibly proven by numerous reports of near death experiences, and mediums talking with dead people, seem to be explainable by the theory of the holographic Universe and the holographic mind.

Etheric Weather Engineering – Native American rain/sun dances around circles and carefully designed and built objects no larger than a wastebasket have repeatedly been demonstrated to manipulate weather within several miles in radius.

Three-dimensional Holographic Torsion Field Television – Mathematical expressions may still need to be formulated with which images could be mapped, transmitted and recreated via three-dimensional holographic torsion field television.

The DNA Phantom Effect – A sample of polluted water is frozen and photographed. Ice crystals are distorted and irregular. A Buddhist priest prays for an hour next to another sample of polluted water which is then frozen and photographed. Ice crystals are now beautifully regular in shape. Light in a laboratory chamber is scattered and random. Physical human DNA molecules are then placed in the chamber. The photons of light began to fall into a new pattern resembling the crests and troughs of a smooth wave. When the DNA is removed from chamber, a residual force stays behind to affect the light particles. Prayer and positive thinking, e.g., Reiki healing, have repeatedly been demonstrated to affect events and people. Mob hysteria, e.g., cheering or booing crowds at sports events, religious fervor, and 'Black Friday' (shopping day after Thanksgiving), can be a potent force contagiously inducing irrational individual behaviors.

Chemical Evolution Theorist Forced Into A U-Turn – To minimize mistakes during the transfer of information, genetic codes employ error-correcting parity codes similar to computer codes. The parity code found in DNA is further evidence the genetic code was deliberately created by superior intelligence. It also reminds us that DNA is designed to maintain accurate copies and avoid changes in the information it carries. This means DNA was designed to NOT evolve but rather to reproduce its own kind forever. Wouldn't that make macro-evolution scientifically impossible?

Micro-evolution is still possible by exploiting chance genetic variations and mutations to breed varieties of domesticated plants and animals such as corn and dogs.

Other fascinating features about the genetic code that have been discovered are musical equivalents, intelligently impressed 'sentences', conversational language structure, and fantastic complexity and orderliness indicative of a brilliant designer.

Torsion Physics: A View from the Trenches – Einstein's relativity theory suggests that gravity is not a force at all, but instead a curvature of time and space. His later research into Unified Field Theory physics extended this notion with the concept of torsion, which many physicists believe has the power to 'uncurve' space and make possible a new generation of advanced propulsion devices.

The Speed of Light is Slowing Down! – The speed of light can be precisely measured by tracking the eclipses of the moons of Jupiter when the planet is nearer to the Earth and compare it with observations when the planet is farther away.

Astronomers have been precisely measuring the speed of light beginning 1738 using this method. Since then the speed of light has slowed down 7%!

Measurements of distances to stars and radioactive isotope decay rates which have been helpful in defining geological ages, two of several examples, are now disturbingly baffling.

Time and its Physical Relationships – When a spatial structure is disrupted by time-engineered causal mechanics, the affected region undergoes relative greater entropy (or, less order). The volume of space is forced out to somewhere else, generating torsion fields, much like a balloon will drift away from denser air.

Kozyrev: Aether, Time and Torsion – All of physical matter is formed by an ‘aether’ of invisible, conscious energy. Torsion waves move through the aether at superluminal speeds.

The Magnetic Force is Faster than Light – The phase-conjugate-resonator Tesla coil is a relativistic force magnifying transmitter with no theoretical limit to its effective coherence length. The author models a topological-time constraint that can uniquely define a system of past-directed and future-directed wave-fronts in terms of a hypothetical ‘T-plasma.’ The transmitted energy reaches receivers *without the slightest dispersion*, so that an incomparably greater amount of energy can be collected than is radiated. One important application of wireless energy would be for powering flying machines without ground connection. Tesla developed a safe, small and compact ‘aerial flyer’ capable of rising and descending vertically. Buildings and transportation vehicles, e.g. cars and drones, could also be remotely powered. Stimulated excess entropy-production results in the cold nuclear fusion of aluminum into silver and the release of ‘frozen’ electronic charge similar to ball lightning.

Y-Bias and Angularity[©]: The Dynamics of Self-Organizing Criticality from the Zero Point to Infinity – Every interaction between matter, energy, field effects and time can be characterized in terms of the attributes exerted by one component [operating in the Y axis] on another [which is operating in the X axis]. The full complement of attributes used to describe these interactions is referred to in the text as the ‘Y-Bias’ effect. Intrinsic to any analysis of the Y-Bias effect is the angle of incidence at which such interactions occur. This aspect of Y-Bias is referred to as ‘Angularity’.

One consequence is that the Universe is conscious and intelligent.

Torsion Field Mechanics: Verification of Non-Local Field Effects in Human Biology – Torsion fields of various objects can be visually observed by humans adept at certain ‘psychic’ skills.

The empty honeycomb of certain bees and having the appropriate shape/form can have an influence on biological objects placed in close proximity, ranging from micro-organisms to humans. The affected person basically feels sickness, illusions of falling, flying, etc.

Experts in meditation have long known that the shape of the building in which they meditate plays an important role in the process of meditation. Thus the spires and domes of churches and temples (as well as pyramids) can be considered ‘passive’ torsion field generators.

An infected cellular culture placed in a sealed chamber can remotely infect a healthy cellular culture in an adjacent sealed chamber. The two chambers are connected by an optical window. The transmission of infection is via the torsion field.

Torsion fields can be blocked by only the element aluminum which has a unique nano-scaled spin structure.

Torsion Field Radio – The theoretical maximum capacity of torsion field communications is apparently 40 billion radio and television channels through the entire earth without attenuation at a speed of faster than one billion times the speed of light. A radio station could broadcast from its studio anywhere in the world via the torsion field without dropouts at receivers.

IPMS Advanced Solar Photo-Voltaic Crystal Lattice Cells – Advanced photo-voltaic crystal lattice cells developed by Kiev, Ukraine’s I. N. Frantsevich Institute of Problems of Materials Sciences (IPMS) simultaneously convert almost all wavelengths into ionic flow or electrical current from extra-low frequency long wave lengths all the way up through the visible light spectrum, X-rays and beyond.

At night efficiencies greatly exceed Western solar cells operating in sunlight. The cost of electricity could be reduced to less than \$.002 per kilowatt-hour.

Phenomena Which Can Not be Accommodated – A variety of experimental observations are discussed which discredit the Standard Model of physics. For example, Einstein’s famous equation $E = MC^2$ is not valid.

The Torsion Field: Information Link to Infinity – More than 10,000 papers have been published by more than 500 teams of scientists over the past one hundred twenty years, describing what the torsion field is, what functions it performs, how it works and where it is to be found. State-of-the-art devices which have been created to operate in this field are becoming more prolific and sophisticated every day. Nineteen attributes of the torsion field are listed and described.

Torsion Field School Network – A torsion field school network would enable the simultaneous teaching in parallel of all week-long segments of each course year round with no seasonal constraints.

Variations on the Mararishi Model: An Integration of Consciousness and the Unified Field – Each of the brain’s dimers contains about 450 amino acids, which are thought to retain information by reorganizing their amino acid sequences. When the combined effect of the individual torsion fields created by 10^{24} dimers, all operating simultaneously within an enclosed volume of less than 3 liters, is calculated, it becomes easier to appreciate the extraordinary dynamics associated with some of the brain’s most mysterious functions. Among the long list of potential applications of the torsion field are revolutionary new propulsion systems, long-range sensors, communications devices, astrophysical monitoring and metering devices, geo-physical devices which can be calibrated to locate mineral deposits, water, and subterranean structures; photographic applications which are capable of imaging the interior of virtually any substance or structure, harmless cellphones could transmit between hemispheres through the earth without dropouts, torsion field dental imagers, and so on.

The Search for Extra-Terrestrial Intelligence – The transmission of signals over vast astronomical distances via the electromagnetic field, i.e., radio, is hopelessly slow and weak. The most profoundly interesting application of superluminal torsion field communications may be to search for extra-terrestrial intelligence in the Universe.

Mike Hanson has discovered a photograph of a crop circle which exactly depicts his design of a flying saucer engine comprising of a triangle of three anti-gravity spheres and a dematerializer in the center.

Petition for Full Government Disclosure of ET Presence on Earth Now – Gary Vesperman has signed a petition circulating on the Internet demanding “Full government disclosure of ET presence on Earth now!” at https://secure.avaaz.org/en/petition/Full_government_disclosure_of_ET_presence_on_Earth_now/?sqwYCbB.

Carlos Aliaga Uria’s Metaphor for the Emergence of Space Travel Innovations – Carlos Aliaga Uria’s magnificent metaphor for the emergence of space travel innovations from mankind’s dark hole of ignorance.

New Space Propulsion Technology to Lift Payloads into Orbit with 99% Cost Savings per Kilogram

Title: New Space Propulsion Technology to Lift Payloads into Orbit with 99% Cost Savings per Kg
March 2012

Author: Clint Seward; Electron Power Systems, Inc.; Acton, MA 01720
E-Mail: dcsiii@aol.com; Phone: 978 263-3871

Engineer: C. Seward, Project Manager (978 263-3871)

Abstract:

A new propulsion technology has the potential to lift payloads into orbit for \$100 per pound, compared to about \$10,000 per pound today. As an example, calculations show they will replace 8,000,000 pounds of hydrocarbon fuel with one pound of fuel. This would reduce the takeoff fuel mass of a launch vehicle by 99%.

The basis for this technology is stable plasma toroid, called Electron Spiral Toroid (EST), that remains stable in partial atmosphere with no magnetic fields for containment. This new plasma toroid discovery was recently confirmed by MIT scientists^{2,3} as part of a recent MDA (BMDO) STTR contract.

The TRISOPS project succeeded in producing fusion in the late 1970's by colliding two plasma toroids. TRISOPS could only produce small amounts of energy due to plasma toroid limitations, and so the project was almost forgotten. Newly discovered electron spiral toroid (EST) technology will potentially overcome the TRISOPS limitations to produce a practical microfusion reactor.

As an example, Earth-to-orbit launch vehicles could potentially use microfusion energy in place of fuel combustion – thus reducing launch vehicle fuel mass at liftoff by about 99%. First, a jet/ramjet engine would heat air for thrust using fusion energy instead of combustion, reducing by 10,000 times the fuel load mass to fly from 0 km to 100 km. Secondly, air is heated and used for lift-off propellant instead of on-board propellant. Launch vehicle velocity could achieve orbit velocity at 100 km using NASA Hyper-X technology, which achieved manageable skin temperatures at 30.5 km and 3212 meters/second. Increasing to orbit velocity of 7671 meters/second at 100 km should be achievable.

Technology readiness level is 3. TRISOPS produced fusion. EST's are produced in the lab, and MIT scientists confirmed the EST physics on a recent STTR project. EST's are accelerated using magnetic coils. Design calculations are completed. What remains to be done is to build a prototype in the lab. A project will reach TRL 4 within two years.

Background

EST's are plasma toroids that remain stable in partial atmosphere with no external magnetic fields for containment. EST's are observed to remain stable for hundreds of milliseconds with no external magnetic fields.⁴ Normal plasma rings dissipate in tens of microseconds.^{5,6} A CCD image of an EST is shown in Fig. 1. An electric arc generates the EST since high current is essential to obtain a large number of electrons to achieve the high densities required for stability. We use commercially available arc furnace electrodes. EST physics has been detailed,^{7,8} and engineering equations have been detailed.⁹

²Chen, C., Pakter, R., Seward, D. C., "Equilibrium and Stability Properties of Self-Organized Electron Spiral Toroids." Physics of Plasmas. Vol. 8, No. 10, pp. 4441-4449.

³Guss, William J., Chen, C. (2002), "Equilibrium of Self-Organized Electron Spiral Toroids." Physics of Plasmas. August 2002.

⁴Seward, C., Chen, C., Guss, W., Seward, DC., "Electron Spiral Toroid (EST) for Energy Storage." Final report for DTRA contract no. DTRA01-99-C-0095.

⁵Wells, D.R., P.E. Ziajka, and J.L. Tunstall. Hydrodynamic Confinement of Thermonuclear Plasmas. Fusion Technology. V 9, 1986

⁶Degnan, J. H. *et al.*, "Compact Toroid Formation, Compression, and Acceleration," Physics of Fluids B5, 2938 (1993).

⁷Chen, C., Pakter, R., Seward, D. C., "Equilibrium and Stability Properties of Self-Organized Electron Spiral Toroids." Physics of Plasmas. Vol. 8, No. 10, pp. 4441-4449.

⁸Guss, William J., Chen, C. (2002), "Equilibrium of Self-Organized Electron Spiral Toroids." Physics of Plasmas. August 2002.

⁹Seward, C., Chen, C., Ware, K. (2001). "Ball Lightning Explained as a Stable Plasma Toroid." PPS-2001 Pulsed Power Plasma Science Conference. June 2001.

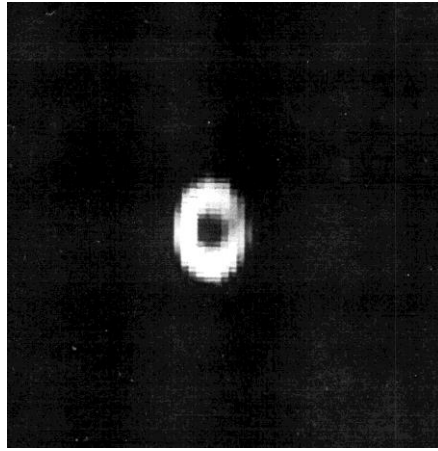


Figure 1. An Electron Spiral Toroid captured at 1/10,000 shutter speed.

The electric arc to make EST's is simple to form. Electrodes touch at the start of an arc event. Voltage and current are applied. A motor draws the electrodes apart, forming an electric arc. The electrodes carry arc-furnace level high currents of 100 to 4,000 amperes, depending on the experiment. The arc event is initiated within a vacuum chamber (bell jar) in order to control the background gas pressure. The arc approximates a lightning event.

The EST has an internal magnetic field, which allows us to use magnetic field pressure to accelerate EST's to add kinetic energy. Because the EST is stable in partial atmosphere it could potentially be accelerated over hundreds of milliseconds. This is potentially important because it will allow us to add large amounts of kinetic energy prior to colliding the EST's in order to raise EST's to the energy levels needed for fusion.

EST's also have nearly equal amounts of electron and ionic charge and so are charge neutral.

NASA commissioned a review of the technology in 2000.¹⁰ The reviewer agreed, "... There is undeniable experimental evidence [from EPS's experiments] of [plasma toroidal] structures ...". The reviewer stated that the ion stability question had not been treated sufficiently in the papers published at that time, and this has since been answered in two new papers,² and ³ as part of the MIT effort on the DTRA contract. Also since then the stability property of the observed EST's has been calculated using engineering formulas derived in part from the NASA review and as a special case of Chen's derivations.⁹ This is a significant step for enabling progress on the engineering applications.

How we accelerate the EST's to add energy

We accelerate EST's using magnetic field pressure in order to add directed kinetic energy to the EST's to raise them to fusion energy level. As reported on the recent DTRA project, we added coils to the EST initiator apparatus, and then observed the acceleration of the EST's⁴ for 18 milliseconds, which can be readily extended to hundreds of milliseconds. This acceleration capability to add energy to the EST can be thought of as an improvement to the Shiva-Star project that accelerated compact toroids (CT's) at the AFRL. We calculate that we can accelerate EST's to 2×10^6 m/s, the energy levels reported by the AFRL.¹¹

¹⁰ Mountain State Engineering. Cambier, J., Micheletti, D. of MSE Technology. "Theoretical Analysis of the Electron Spiral Toroid Concept." NASA/CR-2000-210654.

¹¹ Hammer, J. H., et al., 1988, "Experimental Demonstration of Acceleration and Focusing of Magnetically Confined Plasma Rings," Phys. Rev. Lett. **61**, 2843.

Since the CT and the EST both have toroidal shapes, they can be accelerated along a central guide,⁶ located along a centerline to ensure they will always strike their target with 100% certainty. One difference between EST's and CT's is that EST's can be accelerated with a smaller power supply than the present CT's, which is very important for a small, mobile fusion power supply. This is because the AFRL CT's are accelerated in 20 microseconds,⁶ necessary because they only endure for 40 microseconds. In contrast the EST's last for hundreds of milliseconds.⁴ On our recent DTRA project, for example, we reported that we accelerated the EST's for 18 milliseconds, which can potentially be extended to hundreds of milliseconds. Thus, while Shiva-Star reports using a large pulsed power supply to accelerate the CT, the EST can use a time 900 times longer, with 900 times less magnitude to achieve the same energy and reducing the power supply size and cost to that of a commercially available power supply.

What we include in a full proposal

*The EST density is much greater than TRISOPS or Shiva-Star plasma toroids since the background gas acts to compress the EST.¹⁰

*The EST can be accelerated to fusion energy levels using methods similar to Shiva-Star. We have MIT computer simulations and a lab apparatus design to accomplish this.

*The EST has been observed to remain stable for hundreds of milliseconds. We extend the TRISOPS work with calculations to demonstrate the EST fusion reaction will provide net energy. *TRISOPS collided plasma rings to produce fusion. We analyze their method and data. Applying the EST to the TRISOPS will overcome the TRISOPS limitations and produce useable fusion.

*We provide calculations to show that a small, mobile fusion reactor will replace 30,000 pounds of jet fuel with 2.2 pounds of fusion fuel. We provide calculations for aircraft and other vehicles.

*We detail the Tasks to prove the feasibility of the EST TRISOPS concept. Each task is an incremental step that applies the patented EST to the vast amount of work by others.

*We discuss the technical risks and the feasibility of the approach.

*We provide copies of excerpts of the key references.

Technology Readiness Level and Level of Risk

1. Can the EST be accelerated to 2×10^6 m/s? This has been done with CT's at AFRL, and Chen calculates that the AFRL results are readily achievable.

2. What is the collisional probability for the ions with this method, and can we get net energy production? TRISOPS collided two plasma rings and achieved fusion. We will improve TRISOPS results.

3. Will the resulting power supply be practical? Our calculations show that the small, mobile fusion reactor will achieve net energy production. We will replace 30,000 pounds of jet fuel with 2.2 pounds of fusion fuel.

4. Technology Readiness Level: TRL 1 is Basic research, and we are passed this level. TRL2 is Technology Concept Formulated, and we have done this. TRL3 is Critical Function proof-of-concept completed, where fusion was demonstrated by TRISOPS, acceleration of EST's is observed, and marrying of EST's with TRISOPS remains to be done to move from TRL3 to TRL4.

Company Information and Facilities

Electron Power Systems, Inc. (EPS) maintains offices and a lab in Acton, MA. MIT Plasma Science and Fusion Center has been an STTR research collaborator with EPS.

Patent

Seward, D. C., Chen, C. Temkin, R. Energy Storage Device; US Pat.6,140,752.

Gary Vesperman's "Ball Lightning Fusion Reactors" that is available in his three websites presents three more papers re fusion of colliding plasma toroids.

Magneto-Gravitational Converter (Searl Effect Generator)

A magneto-gravitational converter, also known as the Searl effect generator (SEG), apparently creates a strong anti-gravity field. An uncontrolled SEG will rise about 50 feet as the rollers increase speed, emit a light blue halo which indicates energy is being extracted from the ether, and then shoot up into the sky gaining speed, never to be seen again. At least one roof has been holed by an SEG. The friction-less rollers can be prevented from reaching the critical velocity that produces lift by use of a 'governor' – either mechanical or electronic. An SEG can be easily controlled by immersing it in an electromagnetic wave field the frequency of which is a harmonic of the SEG's primary frequency. While in resonance, the magnetic poles of the rollers reach a unification state, and they stop moving.

The inventor has built and flown a small "inverse gravity" vehicle. A flying saucer-like SEG-powered aircraft about the size of a bus is currently being built in England by a private group.

The Searl Effect Generator (SEG) can be used to charge the batteries in a self-powered electric vehicle. A solid-state device, the heart of an SEG is a series of three concentric magnetic rings with magnetic rollers going around the rings. Both the rollers and rings are comprised of four layers of titanium, iron, nylon, and neodymium.

The magnetic fields impressed on the rollers have both AC and DC components. The AC component is for floating the rollers so they don't touch the rings. The DC component is to prevent them from flying off. The innermost set contains a minimum of 12 rollers for the same reason that a linear motor will not operate with less than 12 phases.

The inner set of rollers travel around at 250 miles per hour, the middle set travels at approximately 600 miles per hour, and the outer set at approximately 1500 miles per hour. Hundreds of millions of volts are generated the energy of which is picked up by brushes positioned all around the outside set of rollers.

An SEG also creates an anti-gravity field. An uncontrolled SEG will rise about 50 feet as the rollers increase speed, emit a light blue halo which indicates energy is being extracted from the ether, and then shoot up into the sky gaining speed, never to be seen again. At least one roof has been holed by an SEG. The friction-less rollers can be prevented from reaching the critical velocity that produces lift by use of a "governor" – either mechanical or electronic.

An SEG can be easily controlled by immersing it in an electromagnetic wave field the frequency of which is a harmonic of the SEG's primary frequency. While in resonance, the magnetic poles of the rollers reach a unification state, and they stop moving.

The inventor has built and flown a small 'inverse gravity' vehicle. A flying saucer-like SEG-powered aircraft about the size of a bus is currently being built in England by a private group.

The inventor for some years independently powered his house off the power grid with a home-sized electrical generator version of the SEG. A householder could set up a 45 x 45-cm unit and generate an output of 11 kilowatts of free electrical power.

Oddly, a house powered by an SEG has been observed to have greater healing powers than conventionally electric powered houses. The healing effect is claimed to be due to the electrons zapping the occupants, taking away pain and returning blood more quickly to damaged tissue. The SEG would also help combat asthma, bronchitis, hay fever and lung complaints due to the increased supply of oxygen in the body. Conventional methods of electric power do not pump out electrons which results in tired eyes and a tired brain.

The SEG's negative charge also means that dust stays in the carpet instead of floating in the air. This is similar in action to negative ion generators sometimes sold as air fresheners.

Two Russian scientists replicated the Searl effect generator and vindicated all of these somewhat unusual claims. See their paper "Experimental Research of the Magnetic-Gravity Effects", V. V. Roschin and S. M. Godin, Institute for High Temperatures, Russian Academy of Science, Izhorskaya 13/19, Moscow 127412, Russia. (<http://rexresearch.com/roschin/roschin.htm>)

The following letter from Robert Koontz is at

http://www.doctorkoontz.com/Scalar_Physics/Searl%20Effect/Open%20Letter.htm:

An Open Letter Concerning John Searl's Free Energy and Antigravity Claims

September 5, 2010

To Whom It May Concern:

I am a Ph.D. experimental nuclear physicist and have been for 30 years.

My bachelor's degree in physics was earned with honors in 1975, and I was awarded the Ph.D. degree in December of 1980 at the University of Maryland.

My experience includes being a Staff Scientist at the Lawrence Berkeley Laboratory and a faculty member in the Physics Department at the University of South Dakota. While in the United States Navy, I served as an electronics instructor at the National Security Agency.

Regarding the contents of this letter, it is my conclusion that the claims made by John Searl in relation to his Searl effect generator are true. Among other things, John Searl claims to have been able to achieve antigravitic effects and to generate energy in a self-sustaining mode that did not require the burning of any kind of fuel.

It is true that John Searl's claims are extraordinary. And, while it may seem to violate common sense to hear that John is generating energy without burning any fuel, it is nevertheless theoretically possible to do this, provided that an equal amount of negative energy is simultaneously produced.

With respect to the above, and in confirmation of John Searl's claims, I draw the reader's attention to the fact that two Russian scientists at the Russian Academy of Sciences have reported replicating the 'Searl Effect' and claim generation of 7,000 watts of power in a system which was said to have lost 35 percent of its weight, or roughly 300 pounds.

Regarding antigravity, the current laws of physics do not appear to support its existence but would have to be modified to accommodate such a phenomenon. This is an area in which I am now doing research.

Sincerely,

Robert W. Koontz

(End of letter)

The International Symposium on New Energy was held in the Denver Hilton South, Denver, CO April 25 - 28, 1996. Gary Vesperman's report includes this:

Pierre Sinclair lectured on his version of the Searl effect anti-gravity generator. He showed photographs of the spooky light created when his generator is in operation.

(End of excerpt)

At one time, a German power company reportedly considered replacing a nuclear power station with eight fuel-less SEGs costing a total of about \$4.5 million and generating a total of 240 megawatts with no pollution.

John Thomas, "The Secret Technology of Professor John R. R. Searl," *Extraordinary Science*, Volume VI, Issue 2, April/May/June 1994, p. 17.

"Experimental Research of the Magnetic-Gravity Effects" and "An Experimental Investigation of the Physical Effects in a Dynamic Magnetic System" by V. V. Roschin and S. M. Godin, Institute for High Temperatures, Russian Academy of Science, Izhorskaya 13/19, Moscow 127412, Russia. US Patent No. 6,822,361 for Orbiting Multi-Rotor Homopolar System, Vladimir Vitalievich Roschin, and Sergi Mikhailovich Godin. Russian Patent No. 2,155,435 for Mechanical Energy Generating Device and Process, Vladimir Vitalievich Roschin, and Sergi Mikhailovich Godin. (<http://rexresearch.com/roschin/roschin.htm>).

<http://www.johnsearlstory.com/> (fastest/easiest way to learn about John Searl)

<http://www.searlsolution.com/> (best for technical information)

<http://www.searlmagnetics.com/> (company business)

<http://www.swallowcommand.com/> John Searl's personal website

http://pesn.com/2011/12/20/9601991_Part-I_Searl_Magnetics_Nearing_Eureka/

http://pesn.com/2011/12/21/9601992_Part-II_Searl_Magnetics_Nearing_Eureka/

David Hamel's Gravito Magnetic Device

The gravito magnetic device (GMD), also known as the David Hamel machine, is a cheap version of the Searl effect generator (SEG) (see above) that can be built with off-the-shelf components. The GMD has magnets attached to radial spokes or arms that are jointed. These magnets are floated in a magnetic housing and when properly biased, continue to spin, gaining momentum and speed with each rotation and achieving the same tremendous electrostatic buildup on the outside rim as the SEG.

The parts inside the GMD are configured in such a way as to promote an enclosed constant variation of opposing magnetic fields. In the resting state, the moving cones are balanced and stabilized in a magnetic field repulsion, like a magnetic bearing. The startup of the GMD is initiated by lowering a magnet at the center top of the shell, inside the shell, towards the momentarily magnetically balanced moving cones.

As the center magnet, which opposes the one attached at the center of the upper moving cone, is lowered inside the GMD, it forces the upper cone to move sideways, shifting the magnetic balance between the cones inside the GMD. The cones stay offset to each other for a short while and then plasma-like energy starts to build up around the GMD. This energy built up creates a shift of colors from red-orange to light blue and then white. Following this effect the GMD starts to lose weight and quickly generates an upper lift in a greater ratio than its total weight.

It should be emphasized that the power generated, surrounding the GMD, is extremely powerful and radiates, causing interruptions of electron flow in normal electrical systems, i.e. lights, cars, transformers, and interferes with electromagnetic transmissions. So it is without saying that this machine has to be operated with serious caution when completed and activated. However, if a control system is in place, it is easy to stop its effect. One of the main purposes of GMD research is to understand the effects of enclosed opposing magnetic fields that have varying vector angles.

The GMD is potentially a versatile, useful technology which also generates antigravity. The GMD has a powerful upward thrust causing it to rise in the air in a manner similar to a Searl effect generator (see above). (The first assembled model after two hours of increasing spin velocity unexpectedly crashed through the roof and escaped.) When the inner workings of what causes the secondary electrogravitational fields are understood, it is probable that various devices can be created providing plentiful energy of different types.

It should be noted that all building materials for the GMD are readily available almost anywhere in the world, and the cost is relatively cheap. A lot of hand work is required but nothing that is unreasonably unattainable. No special machining or parts are required. Only patience and devotion is needed.

Book: The Granite Man and the Butterfly, by Jeane Manning and Pierre Sinclair. It's a fantastic story of David Hamel and his gravito magnetic device based on plans claimed to have been provided by extra-terrestrial aliens. Some questions may still exist on the workability of the device.

David Burns' Anti-Gravity Flying Saucer

The four-day Institute for New Energy 2000 Symposium was held in Salt Lake City, Utah in September 2000.

Scottish inventor David Burns showed a video of his four-foot model of a self-propelled flying saucer actually flying around a field under remote radio control.

His model aircraft has some unusual flying characteristics. For instance, because of its anti-gravity field produced by a circular mechanism in its surprisingly thin body, it doesn't land like a plane on wheels. It flops down on the ground on its belly. It is launched by holding it up and throwing it forward.

While it has a small electric motor-powered propeller on its front and a rudder on its rear so it can bank somewhat on turns, it can't fly or land upside down because of its anti-gravity field. It is controlled by remote radio controls like a model airplane.

Burns also showed a photograph of an 11-foot diameter flying saucer that he was building.

After a separate lecture by Gary Vesperman on his advanced self-powered electric vehicle concept, Mr. Burns walked to the front of the audience to discuss and show plans for his self-powered electric car.

Mike Hanson's Flying Saucer Engine

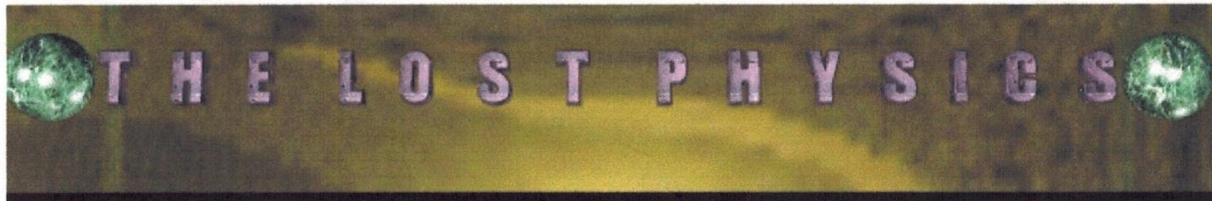
The Highly Electro-Magnetic Hideout

Einstein's last words; "Everything is relative." (Contrary to his theory.)

Topics covered include:

- Lost physics [rediscovered/improved]
- Anti-gravity – a type of silent particle thrust
- Free energy by force conversion
- Dematerialization (shrinking of matter in time and space)/light
- Speed maneuvering
- Types of UFO's
- Instant DNA healing? A theory to ponder
- A note on cattle mutilations
- Lost time? Lost power?

Your #1 source for the absolute latest in anti-gravity/UFO research

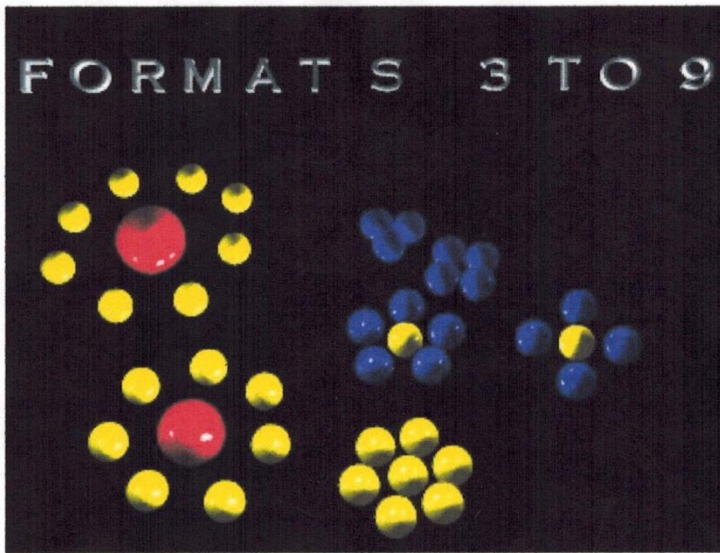
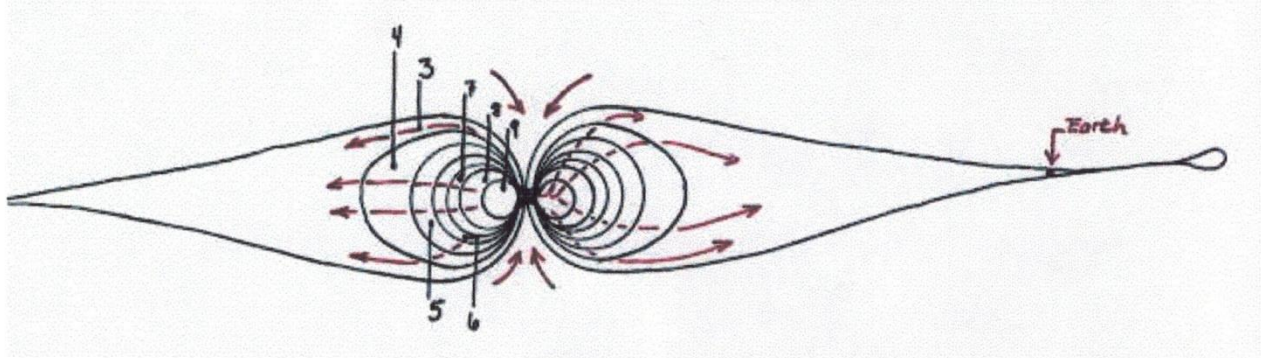


Physics: The physical interacting nature of particles. If this were common knowledge, making things like anti-gravity as a form of silent thrust without fuel, would not be so difficult. It may, in fact, be incredibly easy.

Just as Einstein was becoming known, another set of physicists were trying to make it big utilizing a projectively geometrical concept, as it is the root of all geometries and may encompass the true meaning of space/time. Projective geometry does not use math – such as the Euclidean branch in which Einstein based his work on. The latest and ‘best’ physics theory to date is the ‘M-theory’ which uses ‘p-branes’ to explain the atom and the forces of nature such as gravity. I will not go into this, but to make a long story short, physics to them is based on something which has no basis/ no logical meaning. Projective geometry, which uses line projection (no numbers), can be the only way to describe reality. To learn more about this projectively geometrical concept, I would refer you to "Olive Whicher's Projective Geometry, Rudolf Steiner Press, London".

Based on this concept to explain everything at once in a unification of fields theory, though limited to projective, I have assembled what can be the only key to unlocking any mathematical conversion of this. (Necessary to relate the theory to experimental evidence.) This originated as I looked for an alternative to string theory based on this concept in 1995. In short, what the great physics professors of our time have been missing, is a ‘boson format’. With this, any element in the periodic table is explained with ease, as well as any of the forces. The theory goes like this: Space is an infinite sea of bosons, the largest particles ever estimated to exist by super-collider experiments [atom smashers]. Space everywhere would be like this, without other

particles, if it weren't for the presence of black holes. A dual funnel black hole will inhale bosons through the funnels which aim at each other. These collide at a point to make smaller parts of a boson. Quarks, leptons, mesons, pions, kaons.... these are all parts of a boson. As a sea of bosons moves in, a sea of its parts move out. This flow opposition is what makes time's passage. At a point away from the galaxy, many particles fuse again to become bosons (a never-ending cycle in a never-ending universe). As flow opposition is minimal away from the galaxy, the format is 3, while closer in to the center you will get up to format #9. (This grouping is brought about by a pressure increase between bosons and their parts in flow opposition.)



As the galaxy has its nine parts, so does the periodic table. Each element will surround itself, and is bound by, a particular number of bosons – thus giving it time and space. This also gives it visible color, mass/weight/molecular bonding properties, etc....

PROOF! I believe there is already proof that all matter is influenced by, and sits in a sea of bosons. One proof is this: Take graphite dust for example. Place it in a vacuum of air within a glass container. Expose this dust to direct sunlight. The dust will spin in well-defined recurring trajectories in a clover-leaf pattern. Each element in the periodic table will give a different result. So depending on the molecular bonding arrangement, light from the sun will cause the element(s) to shed leptons off in one manner or another, as the bosons, which contain this atom between its format, will be influenced differently by light which oscillates them in 'boson kinetics'. This is the only explanation which could be deduced as a projectively geometrical solution to the unified theory. The elements will each have a level of, and angle of execution for, an ionic thrust created by this radiation as it deforms the natural 'dead' state of the atom, into an oscillation of the format.

Yet another proof:

Going up in atomic number on the periodic table of elements, the 'charge' of the nucleus increases. Here are the ACTUAL #'s for the atomic RADII MEASUREMENTS IN ANGSTROMS...

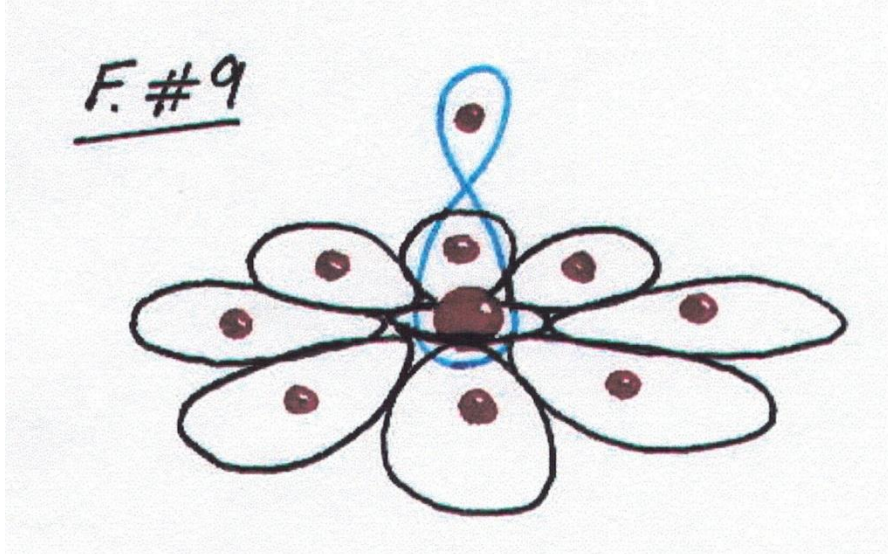
[From Nebergall, Holtzclaw, and Robinson, 'General Chemistry' 6th ed., DC Heath, Lexington, MA. 1980]

Lithium__Beryllium__Boron__Carbon__Nitrogen__Oxygen__Flourine

1.52____1.11____.88____.77____.70____.66____.64

If the radii change as overall atomic nuclei 'charge' counts increase (which they do), and the charge may be proven to be directly related to the boson count for atoms, who could possibly argue with this theory? [Keep in mind that 'charge' is a word used by physicists to explain how certain particles attract or repel. The charge of the nucleus doesn't really attract more by itself and the interaction of photons, but allows bosons to assemble about the quark matter creating a much greater assembly of particles overall – and a higher form of atomic mechanics/higher count of centrifuge mass.] In reality, no particle may 'attract' another, but larger particles do have the ability to cluster in a sea of waves made by smaller particles, just as soap bubbles would on the surface of turbulent water. This happens with mesons in thermal centrifuges in format 4, and with pions and kaons in centrifuges of higher formats. Lithium works well in watch batteries.

Higher boson formats such as lithium which may sit at format 8 and even 9 in theory [updates on this soon] would have a greater radial measure because of the space occupied by bosons in that high format. Lithium's great ability to put thermal kinetic waves into orbit is already proven. (Lithium works better than any element for cooling bearing grease on your car.) Lithium has the ability to fuse heavy metals in nuclear reactions. You make the connection. Examining formats 8 and 9 closer, one should realize that the larger boson at center must oscillate to and from (through) the smaller bosons. This is a product of weight exchanging place as the format maintains a 3d based interaction. Lithium's flow of electrons in such a case should look something like this...

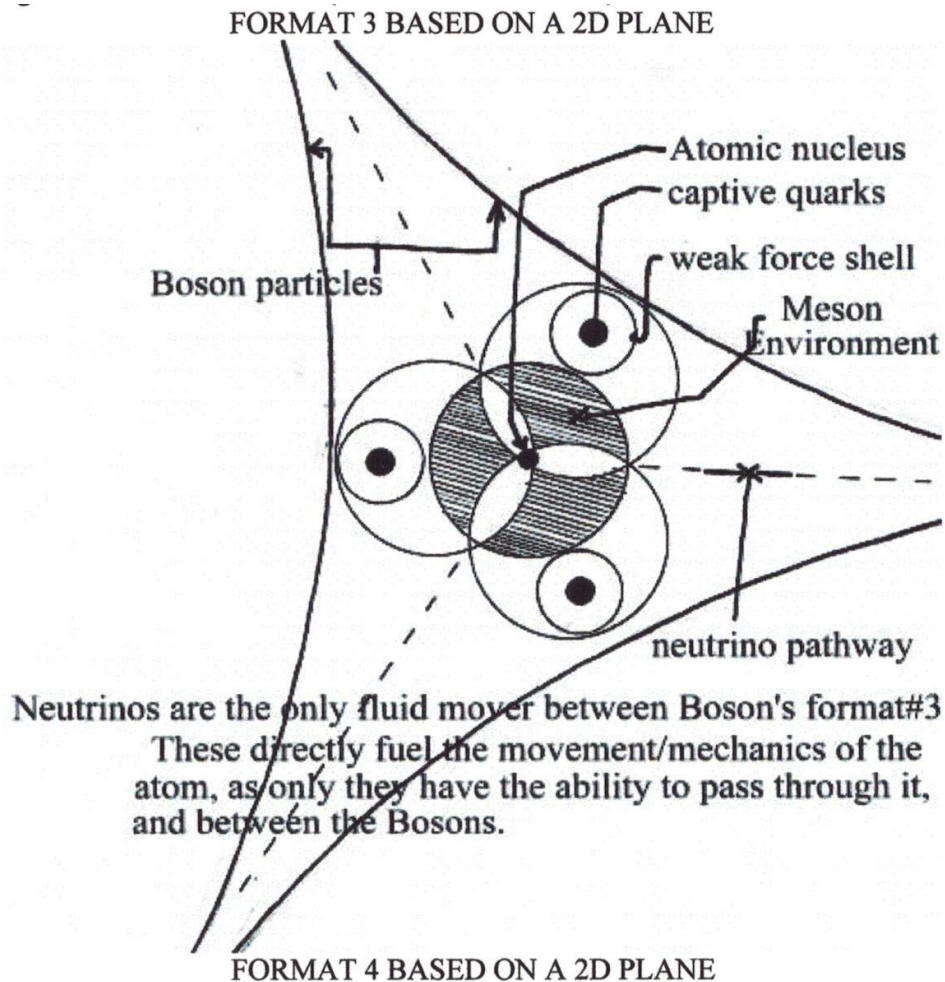


Consider that the so-called 'physicists' today don't care about solving the mystery of this type of evidence. To date, there are only a vety few sources of all the experimental evidences being used to solve a unified field theory, and worse yet, they are only utilizing branches of the only root of all geometries. Why do they continue to build on a broken foundation? Every theory to date utilizes a concept based on branch geometry, of which it has no direct experimental evidence of its own existence!!! Perhaps they are trying to keep employed?

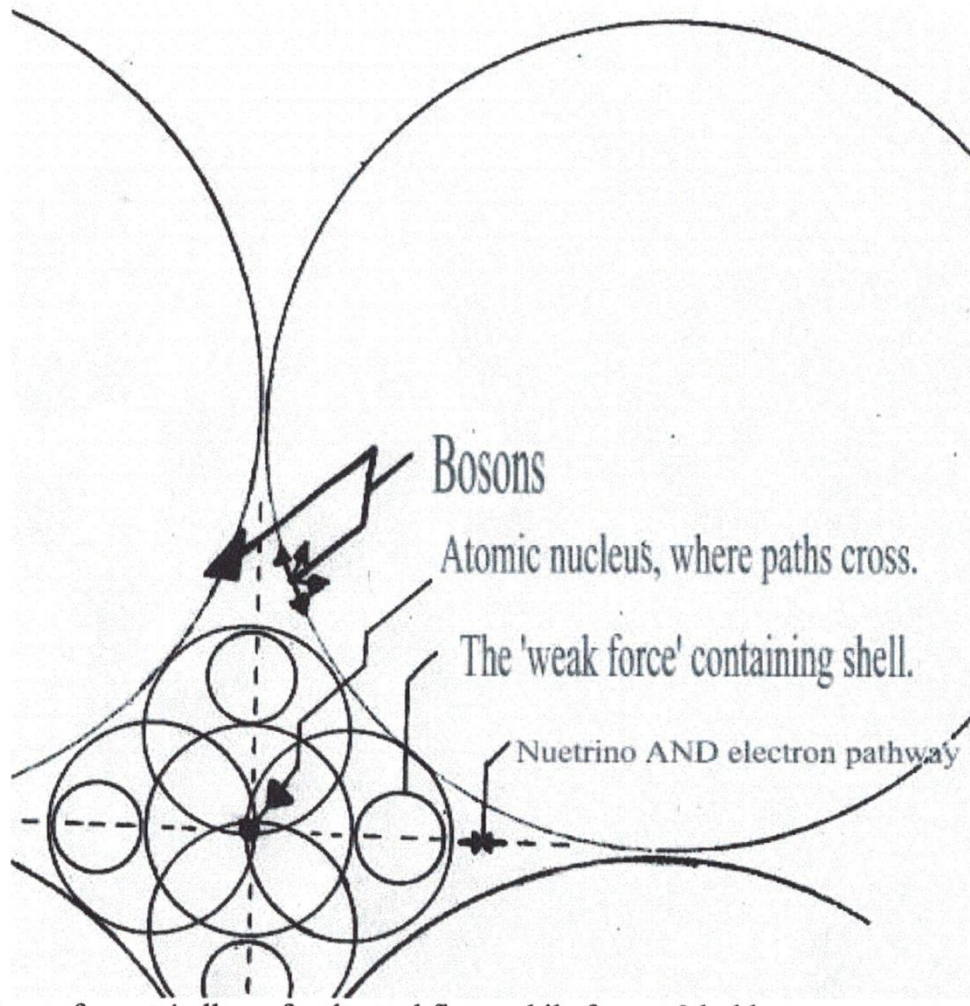
The following is an example of gobbledygook. It is not how anything can work. Yet it is not far off from what they are teaching in our nation's colleges. Not shown are the 'photons' which are supposed to relay between the particles shown and somehow 'suck' them together. The most modern M-theory utilizing p-branes is not much different. The atom still 'sucks' to maintain stability. It is not possible for any particle/quanta to bound between two others and create an action of mutual attraction. The opposite would happen, as if time were acting in reverse. Kinetics is the key to solving how particles move and interact.



If one were to be closer in to the galaxy inside format 4, all light would orbit in every element but gold (Au). This is because gold traps light in a box, as it is made to orbit its format 5. Copper is format 4, though is not transparent here on earth unless you imitate the presence of an overall surrounding format #4 by passing current through the copper. This is of course uni-directional, not omni-directional, as would be a true format 4 environment. Within the galaxy's format #4 area, electrons are put into flow, as the K-mesons (specifically, but not limited to) replace the electron (and other leptons) in flow. Not only does this agree with the mechanics of the copper atom, but also shows how there may be a 'Cosmic Microwave Background Radiation' shift; otherwise known as 'The Red Shift', *without* an 'expanding universe'. If light is slowed down by glass, why can't microwaves be slowed by format #4? Format 3 simply allows mesons to sit around the nucleus, which is the crossing point for neutrinos bounding between bosons. Format 4 allows mesons to act like a set of 'gears' about the nucleus. (As waves would orbit.)



THE 4 CIRCLES ENVELOPING THE 4 WEAK SHELLS REPRESENT THE MESON ENVIRONMENTS.

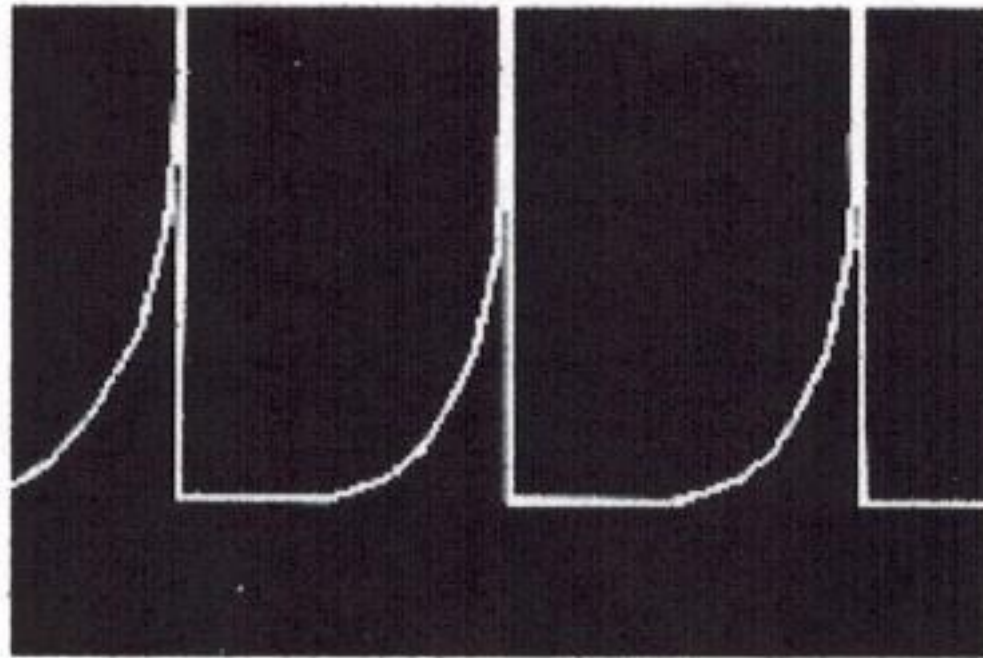


As shown above, format 4 allows for thermal flow, while format 3 holds mesons responsible for thermal activity in a battery as thermal entropy. Below is a depiction of format #5 based on a 3-dimensional plane, as it would house the gold (Au) atom. (Quark matter is not shown.)



Off the subject of physics; set the Way Back machine to 1994

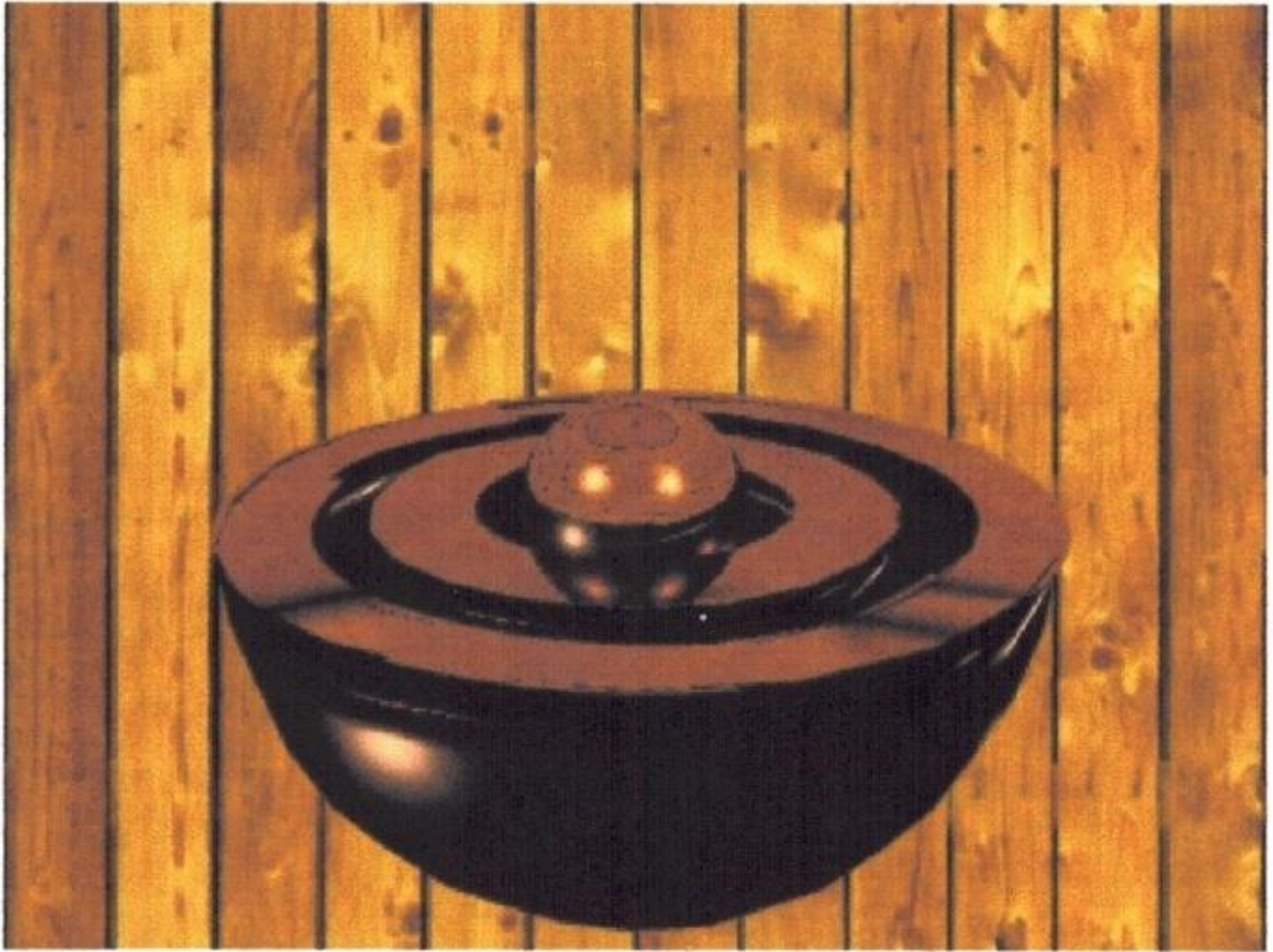
In 1994 I was working on a project (on paper) which would convert thermal kinetics (heat in the air) to usable direct current. I thought, if electricity can make heat, why not vice-versa? I came up with plans for a device which used spherical layers of copper to delay a type of wave release from a medium of gold, which creates surface tension utilizing mesons. Without this surface tension, all mesons about the sphere having a particle vacuum made at center, would not move in sync. What they release as they move in sync, is a 'pump z wave'. This wave will move in to the particle vacuum draw, which is a copper ball, at center. The following shows an example of what pump z-waves would look like on an osciloscope...



This shows the guts of one type of z-wave folding medium as a hemispherical section. Realize that a complete model would have copper spheres, and 8 layers for the thermal converter. [Radial ratio measurements: 0-.5(ball) .75-1.25(spherical layer 1) 1.75-2.25(spherical layer 2) and so on ... to 8.25 for layer #8.]

Attached to the copper ball is a thin lead which removes electrons/etc... from the ball to a point outside the device. This pump z wave [energy in pulse form] would normally move through the center in focal passage, out to the other side, and attract mesons. However, if layers of copper delay the wave on the way in, the successive wave will be set in sync, yet out-of-phase with preceding waves. The waves after focus in the ball will combine to become one higher frequency – capable of attracting smaller particles than mesons. If 8 layers are used, the particles attracted might be 8 times less massive than the mesons in question. The only force that would build (and something must), would be an electric charge. [Unlike other theories, electricity is more than just the movement of electrons. Electrical charge is directly dependent upon the separation distance of bosons in its surrounding format.]

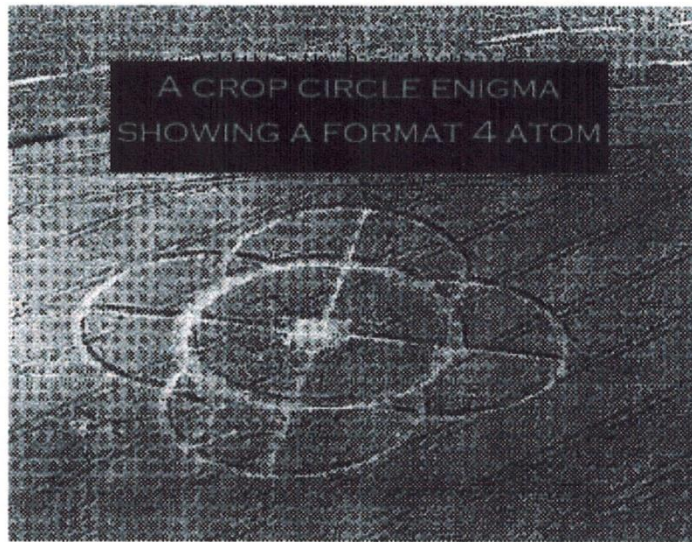
I was still working on a good method to make the right kind of particle draw, in order to subtract capacitance evenly from all the 8 spherical layers at once, when I realized that a documentary of the crop circle enigma was on television. I previously thought nothing of these enigmas, though I was somewhat interested when I saw something which looked very similar to my thermal converter plan. In time, I was able to find this enigma again, and take its measurements. It was a perfect design for a device which would take the movements of thermal activity, and convert this to direct current! After this discovery, I began studying crop circles more and more. I found that people had already deciphered two languages. One language gives all the notes of the keyboard – based on fractals/projective geometry/white noise absorbing/white noise reflecting. The other language allowed cryptologists to decipher text from the inner walls of the Great Pyramid in Egypt. This is common knowledge.



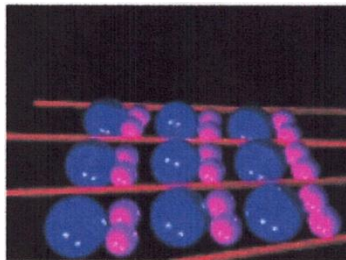
Almost a year later, I was studying 'superstring theory' when I found that if it were converted to a projectively geometrical concept, it would have meaning. I worked on this for a short week before I realized that some of the enigmas looked similar to my projective solutions to physics. This was January 1996. Three years later now, I've found every enigma linked to this theory in physics, and in addition, have found more plans in addition to the thermal converter. The circles give the key to antigravity, free energy by other force conversions, and even dematerialization as witnessed in the Philadelphia Experiment, which Albert Einstein himself was witness to.

A note on free energy: Electron photography performed by two head professors at the labs in the University of Texas, of a vacuum, shows enough power bounding through a space the size of a small jar to run a nuclear aircraft carrier. What could be the key to tapping this energy battery of space?

The true 'state-of-the-art' technology: manipulation of space/time format for purposes of anti-gravity, free energy by force conversion, and dematerialization...



H₂O molecule stacks
in unparallelled alignment



Key to 'boson format changing' by particle type separation
when oscillating about a spherical device

Progressing past the idea of folding z waves off thermal kinetics to form electrical current, I began a theory on how to fold time/space into a frequency which would build static charge during focal passage. The key is ionization states of matter. All matter has this, and keeps well in balance with neighboring matter. This is why you can't just shove a wire into a vacuum of air and expect to derive free power in the form of electrons. To convert this to something useful, the bosons must be removed. To do this, I've found it is, at the same time, the key to anti-gravity. A spherical device consisting of copper layers, having a thin coat of either H₂O contained within metal, or a quartz/gold lattice grown in an operating H₂O sphere, will emit lines of force which prevent bosons from entering, while the free space in the form of leptons, including electrons, is taken from between the bosons. This is accomplished by inducting current in one way or another from the copper ball placed within the spherical copper layers, and getting rid of it through a hole or seams in the sphere small enough not to be noticed by the spherical vacuum. Just as meson kinetic force may be folded, so may bosons. Bosons, in sets of 3, will move together and lock into sets of 7 [gyroscopically inert], in the most extreme peak of positive (+) ionization possible. Their energy has been removed, and so long as they don't come into contact with the device again, free energy has been made. The best way to prevent this from happening is to allow the sets of 7 to simply drain off the skin of the device, as they are a form of artificial weight. You may recall that any UFO has this weakness: It must expose metal or light-emitting spheres on its underside. You may recall how crop circles have formed. This is a direct result of a hovering UFO [or IFO in this case] releasing this artificial weight [+ions], which will not only smash wheat, barley, and/or corn flat to the ground, but will also align the minerals in the earth when it suddenly re-formats by taking in free particles. The crop circle enigma have been noted to give accelerated growth of plants in their centers, where I would estimate the bulk of these positive (+) ions (7 set bosons) to fall. The direction of wheat lay I would assume to be purely coincidental, and not have any bearing on what the enigma means to represent.



The 4 forces of 'Mu'

I doubt the ancients of Easter Island (the Mu) actually meant the four forces to be gravity, electromagnetics, weak, and strong forces of the atom. But outside the kinetic reaction of light (boson kinetics/lepton battery oscillation) it is the first recorded possibility of real intelligence outside of ancient Egypt's technology of making direct current from the 'energy grid'. (You can read about the world grid from Borderland Sciences, Arcata, CA.) Gravity is nothing more than a mutual attraction between like 'higher' formats in an overall surrounding low-formatted space. The presence of bosons in format 4 (ex.) grouped about the quarks which make up copper or steel, for instance, will have a space which maintains a balance of internal kinetics. The passage of time feeds an operation of particle shedding for an atom given altered shape by the presence of another like or higher format giving wave-field attraction. This is no different from explaining how two soap bubbles in water will move to one another. Mesons (ex) push through the atom to the space between the two format 4's (two like attractors). Mesons will return to the inner atom after moving around the outside of the format. During this process the atom/format's overall shape is squeezed to be slightly convex on one side, and biased to concave on the side away from the two like-attracting format 4's. The process of moving mesons will cause a lepton 'thrust' by shedding particles away from the two attracting format 4's, as the shape of the particle set will move it through space like wind moves those 'multi-cup windmills'.

Electro-magnetics:

Argon gas is not conductive as metal, since metal uses format #4, which allows electrons to move fluidly between bosons. Now picture two metal plates both extremely flat. Scientists once conducted the experiment of moving two such plates close together... and just before contact was made, the two plates slammed into one another with great force. This is now known as the 'Casimir effect'. The forces of magnetism and the forces involved in the experiment were no different. Bosons from each metal plate made an attempt at molecular bonding when the final complete layer of bosons between the two plates were expelled. These could not expel through the metal, as they are too large. Neutrinos constantly bounding about must have pushed the bosons sideways out through the space left between the two plates. In magnetism, metal molecules are aligned unparallel. This causes the compiled sets of metal molecules to fuse together, i.e., to expel any large particles contained between the alignments more so in one direction than the other. The ionization state is biased from one side of the magnet to the other, but doesn't drive the object through space if the ionization is allowed to return to its original point in space, making a constant loop. If you have questions on this, I would be glad to respond. Graphics update to follow.

The strong and weak forces of any atom

First consider that bosons are absolutely everywhere in space, maintaining pressure against one another. Now consider how galaxies expel the smallest decayed particle bits, e.g., neutrinos, from their centerpoints. These are small enough to travel between bosons, in the electron neutrino's case – for millions of miles without having suffered much loss in speed – even when traveling through lead. The crossing points of multiple paths, where the particles small enough to travel between the format in question exist, maintain a strong force for any atom. This is where the 'up' and 'down' quarks are trapped, as the frequency created by this path crossing will contain them between wavepeaks.

The weak force sits between the strong force, and the boson, within the boson set. It is nothing more than a centrifuge. Its movement is fed by the same which influence the nucleus, while it is held in place from the other side by a large boson. This second form of entrapment in the 'centrifuge' causes particles of varying size and relative mass to separate into categories. Too much of one category, and the stability of the overall format is biased. This could mean thermal kinetics, or anything. In the case of format 3 atoms such as nitrogen, it would be a bias of mesons. Refer to the format diagrams for a better realization of how varied boson formats will hold different particles in differing centrifuges between themselves. For example, the copper would be allowed more centrifuges, while nitrogen can have only so many in format 3. Lithiums carry the highest formats I know of, thus have ease in moving from one 'dimension' (placement from galaxial center) to the next without going into fusion or fission. DNA contains a good amount of lithium. Could it be this is our connection to another type of existence?

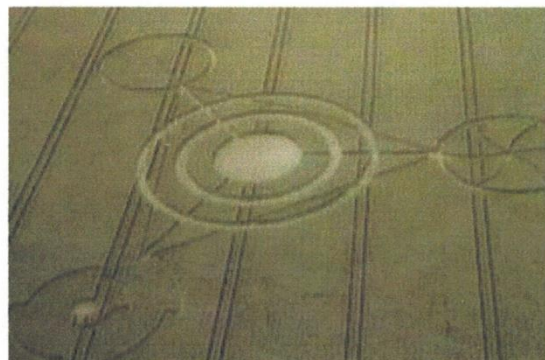
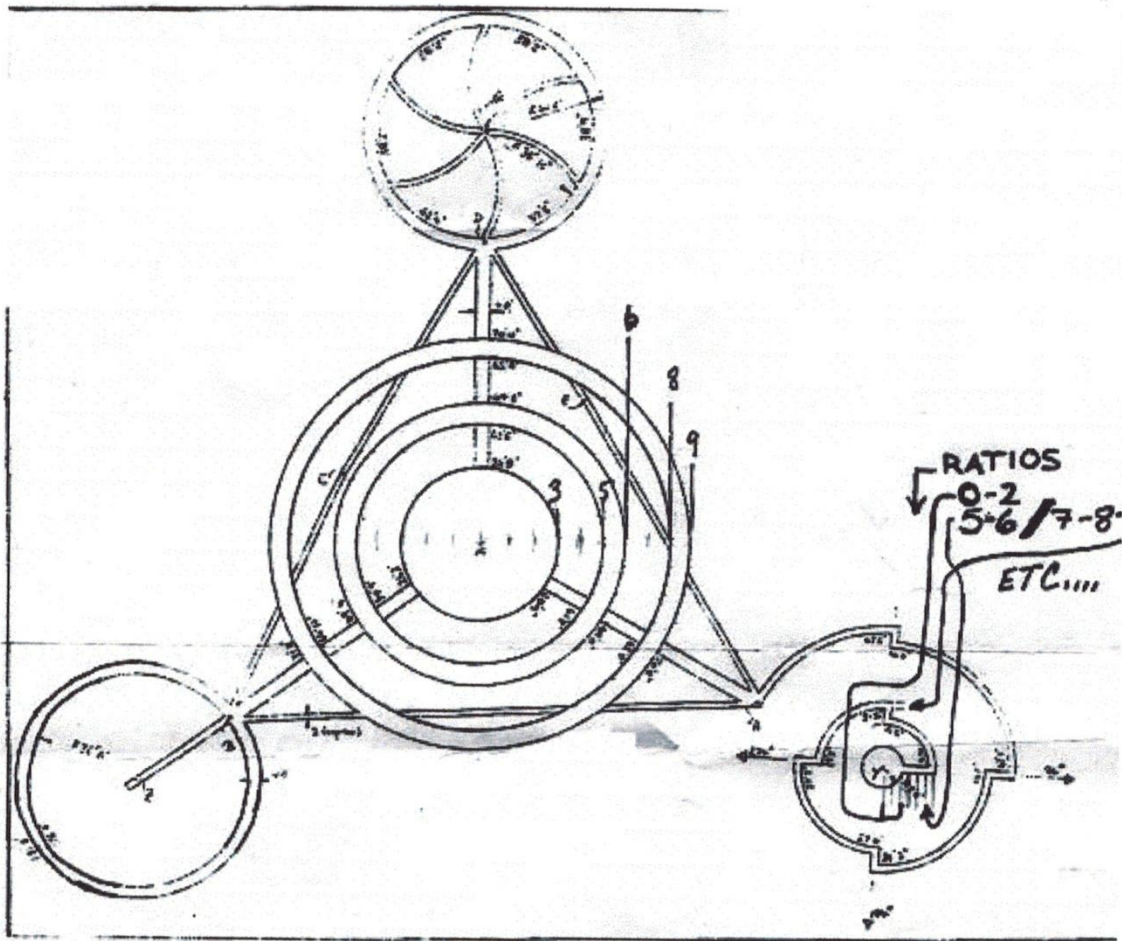
Types of UFO's

There are many UFOs which have either sets of 3 lights, or 3 metal spheres. Anti-gravity works just like a bubble of air in water, so in order to maneuver laterally, this bubble must be 'flattish' or 'lenticular' shaped. Three spheres in close vicinity, and in triangular formation, will each have flattish boson vacuum bubbles within. You may recall how the UFO's which have this characteristic always orient the set of 3 spheres parallel with the earth.

UFO's having a ring of lights about one larger light: This is another method of mutual influence to create a maneuverable craft.

The silver disc craft: Those not emitting light use H₂O as an oscillant, and are not as maneuverable – though maybe if they can 'dematerialize'.

The following are the plans for a craft which has three identical anti-gravity spheres, and one dematerializer at center. These spheres are shown differently to explain the different aspects of the design....

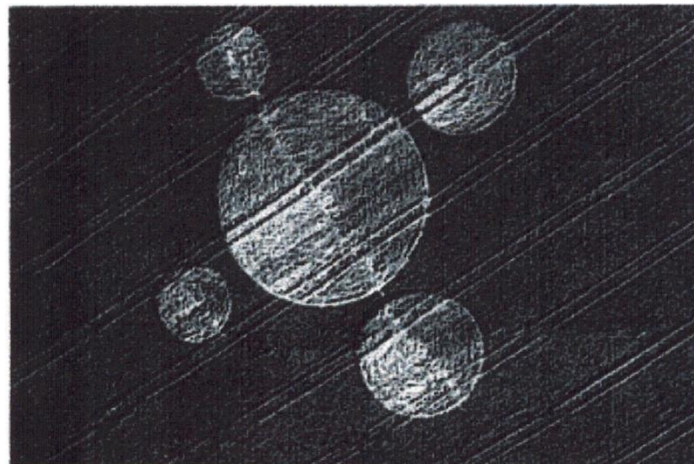
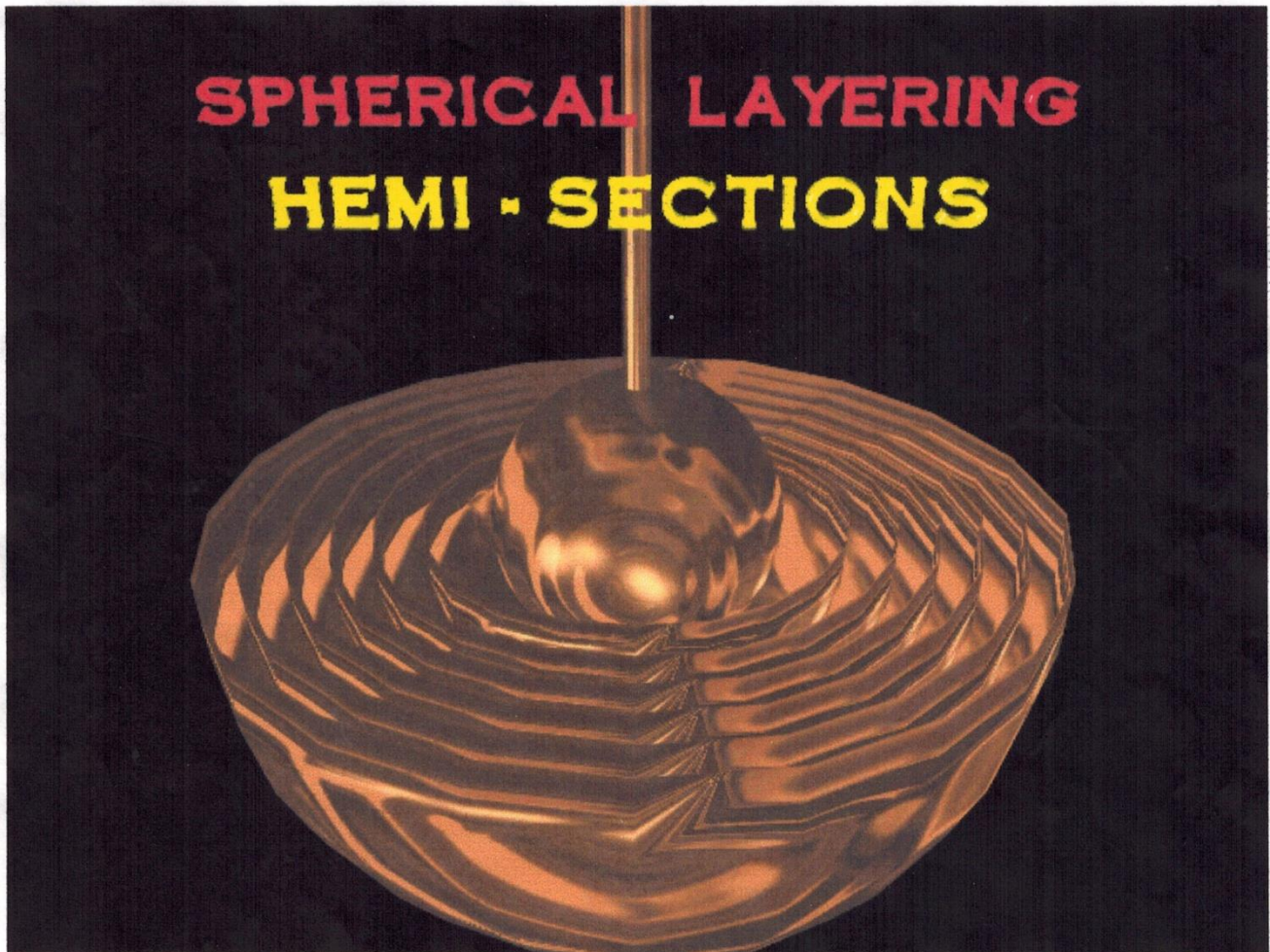


Dematerialization: (Shrinking all matter within time/space format surrounding a spherical area.)

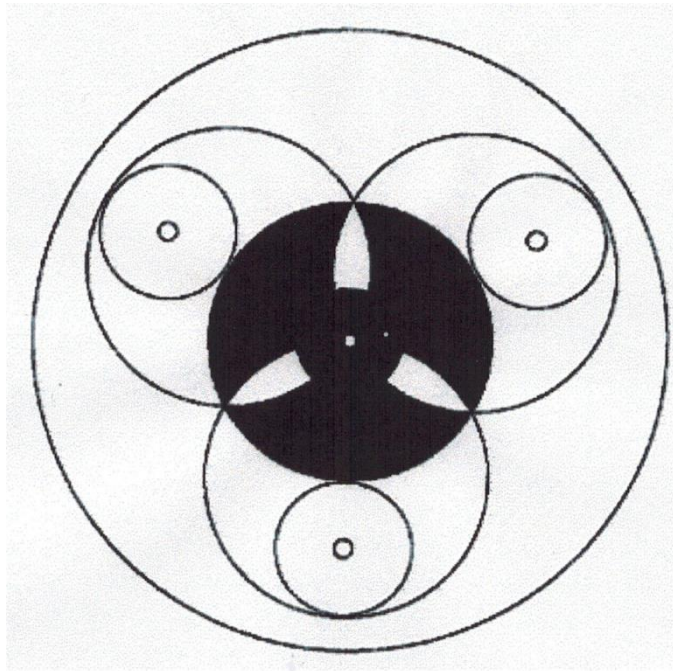
A dematerialization device is constructed of copper only. It has the capability of suspending vapor from the air at a specific radius from the device – if it can be surrounded with vapor at that radius. The vapor (H_2O) will create its own spherical vacuum, and unlike the other vacuums, has the ability to physically ‘shrink’ both its own tension layer (not unlike any bubble), and all matter within the given radius. This is possible as the stacks of H_2O in oscillation against one another have the ability to move closer together in a type of self-correcting perfection. Once a craft is dematerialized, it has the ability to move anywhere at light speed – since all it needs to do this, is to change the shape of this vapor layer ever so slightly by emitting more free space (leptons) on one side than the other. (Bending time/space around itself.) This is what happened in the Philadelphia Experiment, to which Albert Einstein was a witness. The ship may have lost its mast as it extruded from the dematerialized space. Unlike the movie made about the incident, nobody ever traveled back in time.

Here is an inaccurate example of any one of the 3 anti-gravity spheres, shown without the lattice coat.

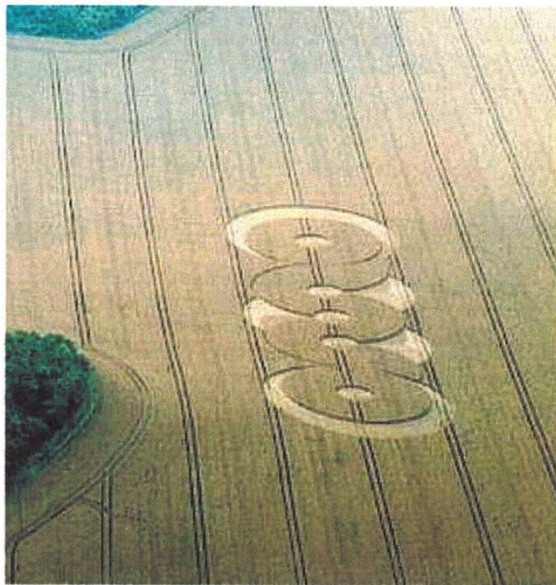
Layer thickness not to scale...



This Enigma Shows Format #5



An Enigma Schematic of a Format #3 Atom



This Enigma Shows Transmission and Reception of a Lightwave



An Example of Format #6?

Instant DNA Healing

I had the theory that DNA or RNA will replicate with extreme speed if format #7 came into direct contact with it. My theory was based on a few things, but was very reinforced when I saw a particular episode of the TV show "Sightings". In this episode, a single sphere-type UFO having a purple color maneuvered directly over these two guys in a pickup truck. The driver had a major cut in his left hand, which was resting on the top of the cab. After the craft passed overhead, the man noticed that there was no more pain in his hand, and after removing the bandages, realized that the injury was gone. It was cut open earlier in the day. This convinces me that positive ions, format 7, inhales enough of the right types of particles when re-formatting to #3, to allow the DNA or even RNA to heal rapidly. The natural healing rate of human DNA is made possible by a very slow movement of particles from the brain and pelvis to all other points in the body. The moon also gives a small amount of this same flow as it orbits the earth. Comparing either one to the force difference of format #7 merits 'no contest'. When format #7 comes into contact with DNA, it may also be quite possible that the DNA will have the power to overcome foreign viruses such as cancer or AIDS.

More on dematerialization

Witnesses of the Philadelphia Experiment described a US Navy ship becoming enveloped in some sort of 'steam cloud' which made a perfect spherical layer about the ship. Just as it appeared, it began to change color, most noticeably green, just before it disappeared and left a big hole in the water which quickly filled making a splash. I don't believe this could be much different than what my own father saw with a telescope in broad daylight in 1971. He was in our yard in Klamath, California, in the heart of the redwood forest. He noticed a bright light passing overhead the nearby radar base on the coast in Requa, moving to the southeast. He happened to be near his scope, and decided to take a look. What he now saw was 3 red lights in triangular formation, each brighter than the sun. Just as it passed over his location, it appeared to envelop with a spherical light, which emitted sparks down to the earth. As it began to move away, he noticed the sparks were increasing with speed drastically (like 20 times) the closer they were to the ground. It is my theory, that since the device in question absorbs all kinetic activity in order to make power in denting space/time's format, the 'sparks' were being slowed down in time when near the device/craft. It would be assumed that they were a form of miniature balled lightning. Moving on.... The craft then disappeared. Years later in 1998, some friends and I were camping up the creek, and noticed two spherical lights dancing about the night sky. The lights acted as if they were playing hide and seek. At one point they moved to the mountain, and we thought they would crash. But in an instant they vanished just before reaching the side of the mountain. I've heard many logger stories about the same lights in the hills, and wouldn't doubt a connection between these lights, and the same lights over Mount Shasta, where some tourists have reported seeing aliens.

Cattle mutilations???

What I found interesting about the mutilation of cattle by supposed 'aliens' was that in many cases where flesh had been taken from the animal, it had appeared to have been cut off with an extremely fine plasma gun, of which nobody on earth would have the technology to reproduce due to the estimated size of the device required to make such a fine cut, nor could it cut around corners! At times the flesh was taken as a near hemispherical section. Other times the cut is along a surface, though it is still a curved cut. It is my theory that sections of flesh were not cut by plasma gun, but were, in fact, taken out of place by a miniature dematerializer. Just as one of these devices may be constructed to shrink all matter within a given radius for moving a UFO around, it may also be used on a small scale to cut out spherical sections of most anything that contains H₂O moisture. The point between the inside and outside of the effect can burn with heat greater than that of the sun, as the fields of bosons which maintain thermal kinetic stability, are being manipulated to extremes – disallowing a smooth transition from one format to another by meson kinetics. More to follow...

Bob Lazar is a fraud!!!

Source: Scanned and edited hard copy snail mailed by Mike Hanson to Gary Vesperman in 1999.

Mike Hanson's Flying Saucer Engine Explanation

Denise Gordon

From: Gary Vesperman [vmanskylink.net]

Sent: Friday, February 19, 1999 1:59 PM

To: Denise Gordon

Subject: Mike Hanson's flying saucer engine explanation

Gary, that's great. It's amazing where communication can lead.

(The following text of this email (edited) was from Mike Hanson. I don't remember who was Denise Gordon. Gary Vesperman)

The theory is very simple really. To first explain how the engine as you call it works, one must have a basic knowledge of physics – which isn't so difficult. Basically there are particles in space, both large and small. These particles exert force upon one another. This force is measured as the 'Planck's constant' to our popular 'physicists' today (my interpretation – that times constant is also a particle pressure constant).

What I've done is find a method of manipulating this pressure in the making of a new type of science altogether. This previously undiscovered science is based on my theory in physics which in a roundabout way explains how to convert superstring theory into the true unification of fields theory by introducing the idea of 'boson format' – making way for the following: Each atom has its own time, thus its own mass, color, etc....

Space has also its own time, depending upon how far you are from any black holes which sit at the center of each galaxy – and do in turn create that galaxy. Gravity is this; the atom/element in question which exists only between a particular format of bosons will make a 'dent' in space. When the space surrounding the atom is less in format than the atom (copper format 4 opposing format 3 which is the average for earth's placement from the nearest black hole) . These 'dents' will attract one another because in the constant noise of space (particle noise in the passage of time) each gives a signature wave. These waves have the ability to influence the shape of the 'dents' made by other nearby elements/matter.

Now consider this: A machine with the ability to cause dead space of format 3 to convert suddenly into format 7. Such a machine would be making a temporary and artificial type of weight. This is possible by altering the ionization state of the bosons, closing them together – thus altering the pressure they exert upon one another in the 'Planck's constant'. The device made spherical will inhale sets of 3, and exhale sets of 7, which drain off the spherical device causing it to 'float' from the heavenly body anywhere in space which its format 7's being shed are moving to.

One simple device uses H₂O contained between two metal spheres. The H₂O molecules will align in stacks oriented away from the center of the device if electrons are forced to move into the center through the skin of the water. (The electrons are then expelled through a small hole away from the device in concentration.)

Now once the stacks of H₂O molecules align, they will oscillate against one another, in the creation of 'lines of force'. To begin, these are magnetic. However, bosons are being held at bay between lines of force outside the sphere, since the lines of force extended narrow the closer you arrive to center. At some point the lines of force absolutely must give in to making a vacuum of these bosons. Since neutrinos are everpresent, these attempt to bombard these bosons to fill spaces. However this will be a biased space. You should recall that every action requires an equal an opposite reaction. The lack of bosons within, creates a surplus outside.

Another way to explain this is that bosons, when they have their free particles taken from between them altering their natural ionization state, will end up locking together into sets of 7. These sets (based on a 2D plane) have virtually no gyroscopes; thus will prevent them from maintaining separation by the presence of smaller particles. These smaller particles, mesons, kaons, muons, etc... would normally allow the set to move like gears.

Moving on: A spherical device may alone 'float', however to maneuver laterally to and from heavenly bodies, will need to have a vacuum which maintains a lenticular shape/ or flattish. [Just as a flat bubble in water will have ability to maneuver laterally.] To accomplish this, you may either make your device a standing oval instead of a sphere, or you may simply place 3 spheres in close vicinity in triangular formation. These 3 oriented to the earth will now have the ability to maneuver laterally.

(The following is reproduced (with some editing) from Gary Vesperman's copy of one of Mike Hanson's geocities.com sites. Vesperman's file is dated January 25, 1999.)

A note on free energy

Electron photography performed in labs at the University of Texas of a pure air vacuum the size of a small jar, shows enough force in the form of electron clusters bounding through to run a nuclear carrier. What could be the key to tapping this energy battery of space?

I will continue to update this site weekly. The point of this page is to introduce a concept of 'super-magnetics' by monopolar magnetic force building, made possible by the spherical magnet. This 'magnet' extends lines of force on one side of the bias to a central spherical medium. Magnetics are first of all made possible by particles moving along the lines of magnetic force IN A CONSTANT LOOP, so if this 'experiment' were ever taken seriously, one would find that the 'mach angles' of magnetism, once reached, will in fact cause another force to arise, due to the suffocation of magnetic – as nothing can keep the spherical device from operating. The outcome of this you will have to decide for yourself, based on the following paragraphs.

A note on physics

What physics theory today really lacks, is how the atom maintains stability in a co-existence with gravity. My theory is that the atom does not contain itself, but is trapped between the largest particles known, Bosons. These 'Bosons' maintain nuclear strength (prevent the atom from flying apart within) as they are always in extreme pressure against one another in an infinite sea throughout an infinite universe. Ask yourself this... 'What is reality?' Is it something cooked up by a professor in a lab utilizing branch geometries?... or could the reality of physics only be explained by utilizing 'Projective Geometry' to encompass the true meaning of space/time? Projective geometry is the root of all geometries. It uses line projection to explain reality, rather than some Euclidian concept for example. Say you're trying to explain the passage of time, and you had no idea what it was, or what it was caused by. Would you want to assume that it works off Euclidian math, which bases the atom on one central point for all interactions? NO!!! The latest theory physicists have concluded upon is 'The M-Theory', which uses P-branes in its makeup (explains how the atom is made of multiple bubbles stuck together.) This is their basis of reality. But what is it based upon? A branch geometrical concept! Useless, as logical deduction would state that reality is simply particles in action against each other, having no relation to anything else. No Mickey Mouse wearing a wizard cap is going to tell me that his basis for time's passage, or anything else, is caused by anything but a kinetic reaction. Particles will flow always by paths of least resistance, not to obey any concept of a 'bubble' or a dual geometric plane, of which it has no experimentally evident proof. I will update this page with more on the subject in time, but for now ... this provides the necessary ingredient, though based solely on a projectively geometrical concept, what we've been missing in physics theory...

Based on my theory, outer space near earth, I would rate at a 'Boson Format #3' (more on this later). Closer in to galaxial center, you can reach up to a format #9. This is how bosons arrange themselves in sets as they oppose the flow of smaller particles which exit from the center of the galaxy where a dual funnel black hole forces bosons to decay. Atoms can have their own format, as they noticeably fit a specific number of bosons around them to have their own 'space' and time, evident color, mass, etc.... This is what a format 3 atom would look like:

(Figure not included)

This is a format 4 atom:

(Figure not included)

Note that in the FORMAT#4, the meson environment previously spherical in nature, now has the ability to move in pathways similar to a 4-leaf clover, or 4 gears. Try to imagine 3 gears turning together at once. [won't happen]. Stepping up to format 5, mesons responsible for thermal kinetec exchange will actually orbit. This is already proven, evident Au[gold]atom, which traps one large boson in between the quarks and smaller bosons in the shape of a box.

Two languages of the crop circle enigma have already been recognized well by the world of common science. I have deciphered yet another two. One is the key to a unified field theory in physics. The other gives plans for various devices, all working off a 'boson particle vacuum technology'. Relate any UFO sighting you can find to this...

When you see a UFO your first reaction is of course, that it is an unidentified flying object. I'm not going to explain ballbed lightning here, just those flying objects which are assumed to have living entities inside. There are 5 main categories...

- 1) Triangular craft having sets of 3 lights, sometimes with one large one at center.
- 2) Disc craft having an inverted cup brim on the underside with something round within this.
- 3) A single light, usually in the shape of a sphere, but in some cases a standing oval or a disc shape, with nothing attached.
- 4) A metal disc having 3 visible metal spheres on the underside [notoriously known as the 'Drone' craft] as once sighted over or near Mexico City during the Olympics.
- 5) A disc, or somewhat disc shaped craft, having a non-luminous body, with a ring or rings of spherical lights and one large spherical light at center.

These all have one thing in common, whether they shed light or not. They all have to expose their spheres to the naked eye. Why must they have this weakness? These must be exposed, because they are no different than a rocket's red glare, or any other form of thrust. These 'float', in a matter of speaking, and without the underside exposed, the thrust produced will counter the effect, preventing the hunk of matter from ever taking off. Another thing to keep in mind, they are always oriented parallel to the earth. Sets of 3 lights, or standing ovals, will tilt slightly to maneuver laterally. They work opposite direction to a helicopter blade's tilt-path-plane. You may recall an upstate New York sighting in the 1980's, where a triangular craft slowly moved over the city at night. Some of the 3-light sets, included in a set of 9 in the craft, would rotate slightly... which gave the impression that this was an aircraft formation. This was not the case. They adjusted to perfect direction of movement, as sets of 3 spheres in any case, are not able to simply tilt to move in a specific direction and have maximum accuracy, as would a standing oval. These spheres are creating 'boson particle vacuums' within. By mutual influence only can spheres have 'flattish' or 'lenticular' bubbles within, which are very necessary if you want to maneuver laterally. What good is it without this? The craft which have spheres of light are high output, high thrust capability types.

While the spheres of metal are not so productive, and would not be good in combat for example, a standing oval light, or standing metal egg within a metal disc craft, creates within itself a disc vacuum for lateral maneuverability. This may sound great, but isn't for variable thrust/floating, because only with the sphere can efficient 'Force Conversion' take place.

This is the schematics for one of the crop circle enigma, which I believe to be plans for a craft capable of anti-gravity, and dematerialization.

(Figure is missing although it could be a duplicate of a figure shown above.)

And a rough depiction of any one of the three anti-gravity spheres shown cut open here... layer thickness not to scale.

(Figure is missing although it could be a duplicate of a figure shown above.)

Prelude to force conversion for 'free energy' and...

This is something you don't see every day: How to make kilowatts of direct current without fuel (other than the fuel of time's passage). Our society is controlled by high prices in, what should be ancient now, sales of fossil fuels...and nuclear power by 'reactors'. You can get the same power without the plasma heat, and nuclear waste. Most of what you need is just copper! You may think you know a lot about science, but tell me this, have you ever heard of an experiment undertaken to find what happens when you try to create a true 'particle vacuum'? Not an air vacuum. As you might recall, electron photography of a vacuum, shows enough power bounding through in the form of these so called 'electron clusters' to run a nuclear carrier from a space the size of a ladel jar. My point is that bosons, the largest particles, format space everywhere.

Whenever a space is created big enough for a boson to fill, it is instantaneously pushed there by neutrinos which pass through the spaces between bosons for vast distances. Neutrinos do this because they are light, small, and have been shot out of a galaxy somewhere, which has been busting bosons into bits as small as neutrinos. This force is what drives neutrinos to move as they do. Earth is at a distance from galaxial center to allow it times passage by way of neutrinos only. Closer in, where larger particles are more present, time's passage is caused by electrons, and so on. There are 9 levels of time/boson format. Graphics are on the way.

Free energy by force conversion

Time/space is nothing more than boson format, kept constant by nature's flow of free particles from dual funnel black holes within galaxies. Bosons will arrange themselves in sets of 3, 4, 5, 6, 7, 8 or 9, depending on the pressure they can maintain to stick together. When I say 'stick together', I mean by mutual wave attraction, not any different than how two bubbles of like size on the water's surface, will attract to one another. This is a common rule anywhere in reality, either 2d, 3d, 4d, or etc.... Elements on the periodic table exhibit higher formats than the format natural for that distance from the galaxy in question. This is what gives them weight, mass, color, as they have their own time, and their own space they have created as they fit between a higher number of bosons than surrounding space. A sphere of H₂O, or a specially made quartz/gold lattice grown in operation of H₂O on the atomic scale in the shape of a sphere, allows one to create lines of force extending outward from all directions at once – like an omni-directional gyro. ONLY this can cause bosons to lack within a space, as this disallows a return flow. Small particles are taken from a central point, where they are shot from the sphere, while outside the sphere larger bosons are held at bay between lines of force they have created for themselves. The ion state is what is in question here, and this is the answer: Boson format is equal to ion state. Matter's presence will battery this state, or it may be left in a state of unparalleled format, until the boson sets in question slowly or quickly find their natural state for the constant format held for that area of space.

The varying formats and how they affect matter trapped between them

What is a format? And why have I displayed them based on a 2d plane? A format of bosons is nothing more than how many bosons may collectively pair at a time, based on a 2d plane, as this is the key reference for velocity/pressure – as bosons oppose flow of small particles such as neutrinos in format 3.

Format 3 as shown will have neutrinos bounding through it, allowing the center point where they cross paths to make up the atomic nucleus of light gasses, such as nitrogen.

Format 4 allows for something greater; electrons may now move constantly. Copper is a format 4 atom. Every time a format is stepped up, the lightest particles move to flow in a constant cycle, while those previously left stagnant and non-interacting will become part of the atom's mechanics. Copper *is* conductive, while it is also the greatest thermally disappating element (that is, has the greatest amount of thermal conductivity). K-mesons, responsible for thermal kinetics, flow in a 4-leaf clover fashion here within the set of 4 bosons. This works just like geared wheels. A set of 3 would not turn. A set of 4 would.

Format 5: The only atom having perfect format 5 is Au/gold. It puts K-mesons into flow, while it also allows for (just pions?) to orbit a larger centrally based boson. You will notice the graphic depiction of this having 5 bosons, but when applied to gold, one large boson sits at center, while 8 smaller surround this. (4 on two separate 2d planes) in the existence of the 3d atom.

Format 6: Just another step up. Exact details/specs on this to come.

Format 7: The locked set. Imagine these as gears... it wouldn't work well. The set of 7 is gyroscopically inert. In nature, I believe this is one of the Li/lithium atoms, which has the best overall ability to cool, as it prevents any thermal kinetic storage even. Lithium is used in lubrication of wheel bearings. It is used to prevent instant landing gear lubrication boil off in outer space on NASA Space Shuttles.

Format 8: Almost there....

Format 9: The last possible format. To my knowledge, this does not exist, unless as a heavy radioactive element, which would only last if the overall format for surrounding space is format 7 or above. It is the 'universal joint' of atomic mechanics. You should be able to see, that if another boson came into the picture, the format would not hold onto the center boson anymore. Perhaps there is a place in the Universe where the large central format 9 'Higg's' bosons will group into 3's...? Neutron stars perhaps.

If you've read and somewhat understand the above, you should now be able to comprehend this:

Anti-gravity as it relates to the extraterrestrial craft previously outlined, is a form of thrust. It is silent. It is made possible by a spherical device which inhales small particles such as electrons to a centerpoint, and then jettisons these from the sphere through a small hole or seams. (Don't jump ahead of me yet)... Meantime, you have large amounts of the largest particles known to exist, building up outside the skin of the sphere. The sphere will use either H₂O or a specially made quartz/gold lattice to extend lines of force (lines of oscillation) from a central spherical point to all points outside the spherical device. These lines of force will hold bosons at bay, preventing them from entering with the smaller particles – as they are held at a specific distance from the sphere in operation. Bosons naturally separate themselves at a standard distance in nature, this is their 'ionization state' [they exist everywhere], but in this case, they pack together as free space is taken from between them. When this happens, surface tension between the bosons which have now locked together into sets of 7, will cause 'free space' to pulse through the boson shell in the form of a 'pump z wave'. This can happen in a fraction of a second. These sets of 7 bosons are now extremely positively charged ions. They are also heavy, almost like water.

At this point, if the base in which the spherical device is mounted, is out of the way of a downward flow of positive ions, the spherical device will weigh less, as it is now producing a form of thrust. This 'thrust' isn't much different than a flow of water. It can smash wheat flat to the ground in the formation of 'crop circles', for example. When you see a UFO, consider that it is floating. You will soon come to realize that there is no other explanation.

More on pump z waves and how 'space' is folded to become energy

Not shown here would be more copper layers and a medium which extends lines of force, such as H₂O or a quartz/gold lattice. Gold plus other crystalline structures work as well. Lithium may be ideal.

The oscillating lattice or liquid allows for pulses of energy to bound inward to spherical center. As these pump z waves move in, they are delayed by the presence of copper. This will set the successive waves in sync yet out of phase with proceeding waves. Once the focusing point within the copper ball is reached, waves combine to form one higher frequency. In a way, this is how laser light is made, as infrared waves combine to become light waves. Nikola Tesla utilized wave folding from a low frequency to a high frequency in some of his work.

Now the waves lost off bosons outside the H₂O or otherwise, which would normally continue out the other side to attract bosons, are now forced to attract smaller particles with this higher frequency. This builds ion charge in the copper ball. A thin copper rod may extend from the ball to a point outside the device to enamate power in the form of direct current. Any questions???

The 4 forces of 'MU'

I doubt the 'MU' of Easter Island really knew about gravity, electromagnetism, or the strong and weak forces that keep atoms together. But they did leave some script behind which could point to the possibility. In any case, here it is:

Gravity: Local molecular bonding of an atom may give it a lower or higher format than overall surrounding space. This bonding requires either larger or smaller particles to bound in and out of it. If these are larger, such as electrons which copper has put into flow, they are what is lost 'upward' when the matter or simply highly formatted ion, is pushed downward. This format 'falling down' now, attains more electrons as they are ever present. The electrons would be lost 'up', because the high format (higher than overall surrounding space) is mutually attracted to the large mass of higher format (such as an Earth.) This mutual attraction is the direct result of naturally enamating waves from both objects. It causes the gyroscopes of each to change, which make them both slightly teardrop shaped with their shell of surrounding electrons, and etc....

Electromagnetism: Say you have an assembly of format 4 atoms which create between them holes large enough for mesons, pions, kaons, and even bosons, to travel through. [This is a theoretical estimation of the particles involved in magnetics and may not be correct.] If the metal has its tunneled holes aligned to bunch close together on one side, and far apart on the other, the passing free particles such as neutrinos, will have a hydraulic advantage of pushing these pions/kaons/bosons etc... through the tunnels in the metal. This is possible only because the bosons which surround each metal atom, create a surface tension than involves the use of gyrating/orbiting mesons/etc... And this tension may prevent the entrance of larger particles into the metal if the holes on that side are spread apart more than the opposing.

Strong force of the atom: Many theories have come and gone as to how this works with everything else, especially the co-existence of gravity. It is simple though. Bosons having immense kinetic pressure against one another everywhere throughout the infinite universe, keep close to one another. Only this can allow for the smallest particles for that particular format number of assembly, to enter and exit. As the neutrinos for

example, bound between a format 3 for nitrogen, the point at which paths cross is the point where the 'up' and 'down' quarks will sit. They cannot go into flow, and they cannot move too far from this assembly, as any attempt to do so, would be a move away from the field waves created by the crossing paths of neutrinos.

Weak force of the atom: Between any format, a very interesting thing happens. Larger particles [e.g. mesons] are pushed around by small particles passing through the format. This, in one way or another, causes everything trapped between the boson format to separate into categories, like a centrifuge would separate white and red blood cells. As these 'centrifuges' sit, they act like gears. A format 4 will have 'gears' which make space for quarks large enough to create a copper atom, if the quarks are present. In time, I hope to have a revision of the periodic table of elements for this, but for now I have only a few of the elements categorized... Light gasses= format 3. Most metals= format 4. Gold= format 5. Lithium 6 and 7 are categorized as formats 6 and 7, though may not be correct. But must be close, as they do not conduct heat as copper would, and don't reflect it as gold does so perfectly. The degree of thermal reflection is directly evident their degree of separation which points directly to the number of smaller bosons surrounding the larger boson. This concludes the 4th 'weak' force.

Light: I would not prefer to categorize this as a 5th force, as it performs just like magnetism, though it uses smaller particles in use of its field waves. It does utilize boson kinetics more directly than anything, as electrons are put into surplus or deficit as an amount contained between a boson format, on one side or the other of the light wave. Light from distant stars shows just how great the pressure is maintained between bosons.

Cosmic Microwave Background Radiation (CMBR)/the 'red shift'

This is not a shift evident of the universe rapidly expanding! It is a delay and slowing of field waves made possible by the presence of galaxies which have higher boson formats! Light is delayed by glass, right? You may recall how you will see only blue light through thick glass. Wouldn't this oppose the theory? No. The medium for all interactions is based on format 3, as Earth is at a distance from the galaxy to give its surrounding bosons and average of format 3. Microwaves do not pass through metal correct? If galaxies have format 4 as a minimum close-in, wouldn't it be assumed that this would at least delay such waves?

Unifying Field Theory with Projective Geometry

This section is dedicated to making sense out of particle physics. For long, so many have theorized methods of explaining all particle interactions with one theory, yet have neglected the use of a projectively geometrical approach – which can be the only way to encompass the true meaning of space and time. I have made this website easy to understand for both the complete novice and advanced physicist.

The missing link is bosons. This is not a pseudoscience. Fermions only have spin because of bosons. The bosons are the medium for this, as they 'FORMAT' space, allowing time to happen. These particles, known to be the largest, have been neglected since until now fermions (obvious interacting particles such as quarks) interacting only with the totally theoretic and imaginary photons, have been used to explain too much. The same goes for strings with p and d branes. The illusion math gives is a near perfect solution. But to encompass the true meaning of space and time, how can one assume that any branch geometrical concept (think about this, really), can truly encompass the true meaning of space and time!!!! If it works, it must be translatable to one simple sentence, as it was so well put by Einstein.

Why haven't the bosons been introduced into the equations made by our so called 'modern day' physicists? In the shadow of the boson particles, all matter retains alignment with space and time, and while photons show a method of explaining interaction, fools forget to continue the pursuit of explaining particle physics with just

particles. Euclidian geometric equations base this photon activity on dual geometric planes of movement – which have no basis for either their existence nor fuel for movement!!!

On the left, you have our modern day physicist's basic plan for an atom, utilizing 'p branes' in the 'M theory'. On the right, you have my modification, wherein bosons surround the atom, and all interactions work through wave reflection only. The 2 ideas are close to being the same, yet one method may use ONLY particles. This theory doesn't sell with physics professors, since I've found it difficult to translate my projective idea into math without higher math schooling. The solution is however obvious, since the modification is basic in principle. The wave reflections form particle vortex centrifuges (a natural method of particle separation and confinement). No photons then, just waves through particle fields as neutrinos (initially) fuel the movement of this interaction.

The vortex concept:

This describes the basic idea of a vortex: Two or more particle weights come in, are separated in a centrifugal action, and are released. Not shown here is how one or the other of the subjects may be routed to re-enter the flow. In particle physics, the smaller particles will constantly re-enter the flow in low radius groupings, while the large and heavy are either lost from the loop or simply continue looping at a larger radius with decreased speed.

The Higgs boson, largest particle known, has 0 spin. This shouldn't mean it does nothing! They are the MEDIUM for every interaction – a yang for the yin. These format space since neutrinos move through the universe in such a way to keep them in order/format (format explained below). Not only are bosons THE missing link to explaining absolutely everything, but in absolution, these also provide us with the necessary tool to make complete and logical hypothesis of methods for creating anti-gravity, and or, particle thrust machines, as well as final solutions in breaking down riddles in chemistry.

Any element in the periodic table is explained with ease, as well as any of the forces. The theory goes like this: Space is an infinite sea of bosons in an infinite universe (not expanding and no 'Big Bang'.) Space everywhere would be like this, without matter, if it weren't for black holes. Black holes inhale bosons, break them down, and exhale small parts which are all other particles. (Stephen Hawking once theorized this). The unequivocal proof of this, and the demise of ideological photon theorems are in part as follows:

[Sideband emission from black holes, evidence that the fabric of space/time is stretched.](#)

(Links to article 'Observing Lense-Thirring Precession'.)

The **[OTHER EVIDENCE](#)** (links to a Hubble telescope photo) to support this theory has come to light – a new class of black holes has been discovered [ref: NASA HQ Press Release, April 13th, 1999.] In our galaxy for example, dual funnels inhale bosons, while quarks, leptons, mesons, pions, kaons, etc... are all released from the center. As a sea of bosons moves in, a sea of its parts moves out much faster for equal weight exchange. This flow opposition is what makes time's passage, as most evidently neutrinos passing between atoms at light speed cause the atom to oscillate from within!! Just because stars are swallowed by black holes does not mean the overall action of this excludes the galaxy's black hole from growing. This is only an example of natural growth. At a point away from the galaxy, usually at arm's ends, particles fuse/freeze again to become bosons (a never-ending cycle in a never-ending universe). Any body of matter in this theory then, should have an accompanying black hole, and based on this new evidence of the existence of black holes having a mass 100 to 10,000 times the mass of the sun *(click on link above 'Latest Evidence'), it should be more than obvious that black holes not only make the galaxy, and make time as neutrinos and other particles are released to fuel the movement of atoms, but allow for 7 dimensions as well. (Dimensions explained below). Dimension number (number of dimensions or dimension number? Vesperman) rises closer in to the galaxy's center. Galaxies put a dent in space and time (time moves slower within), and causes an inhalation of

any wave passing the galaxy, which is why **CMBR SLOWS WHEN PASSING THROUGH GALAXIES BECAUSE EACH GALAXY HAS A DUAL FUNNEL BLACK HOLE INSIDE.**

Previously, there were only two known classes of black holes, the 'supermassive', and the 'stellar'. Astrophysicists representing the Naval Research Lab. N.W. Univ. and the University of California at Berkley, who collaborated in the discovery of antimatter emission, appearing as a burst of steam spurting upward from the yolk of a fried egg, should have easily deduced then, that all galaxies have black holes within, and likewise, must consider these not as something which could only cause the demise of a galaxy, but could very well be what makes a galaxy work!

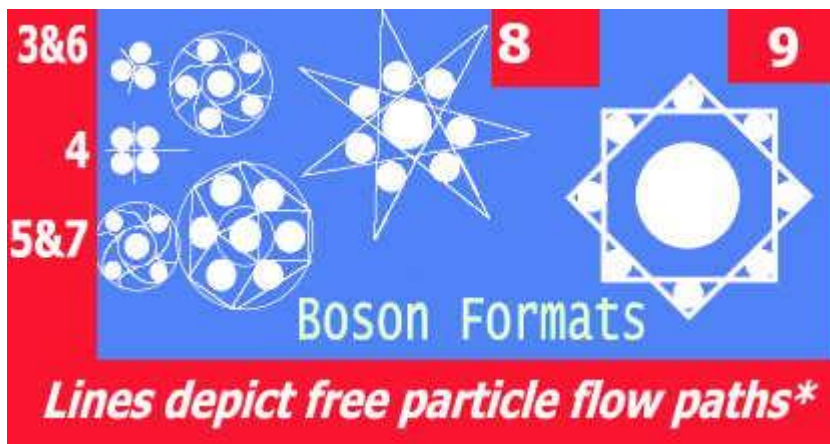
As flow opposition is minimal away from the galaxy, the format is 3, while closer to the galaxy's center, format 9 is present. The number of bosons in a 'format' rises when flow opposition between bosons and their smaller parts increases in pressure. The pressure may prevent electrons from orbiting in format 4, while replacing them with mesons responsible for the thermal spectrum. Format 4 fully active exists just at light speed. (The element copper is format 4, which is why it sheds light under current passing, as electrons are disrupting its synchronous meson interactions). Later I will mention more on the elements. Elements have formats based on how much they have to expand the format of bosons from within. Gluons, which DO NOT exist, would not in this theory because every particle orbits about a smaller particle, rather than the other way around, in the strong force – just another disproof for the Euclid-heads.

The weak force acts as a gear attached to the strong force, and is not directly affected by the passage of time which is a count of particles passing through an atom at one time in fueling its oscillations/movements. The weak forces do have a direct connection to molecular bonding. The weak force is what remains of an atom which might surpass its ability to interact with surrounding space after passing a level of light speed, or format interaction. This is because the bosons arranging in sets of 4 for format of 4 for example, when passing light speed, will allow its molecular bonding waves to act without interruption. i.e.: K-mesons (over 600 x electron mass) replace the electron, and because of this the strong force of the atom shifts its geometry to work with other particle sets. The reason for this is simple; particles group because of orbital waves, which continue past light speed by mesons, not electrons. When passing light speed, the final particle sets left can only be those which are heavy enough to allow a wave through its own to orbit an elliptic about the boson which opposes the head on flow of the atom's greatest speed though all else. For a visual of this see the depiction of formats a few paragraphs down.

(Figure is missing although it could be a duplicate of a figure shown above.)

Shown below left are the two funnels of a supermassive black hole which inhale bosons. Shown below right I've depicted the flow opposition between bosons and their outbound parts, which is what creates time's passage. Note that some neutrinos are around a million times smaller than bosons, and these are responsible for time's passage/fueling the mechanics of the atom where earth sits relative to the center of its galaxy. That is, it would take about a million electron neutrinos to allow a boson to move just 1 space into the galaxy's black hole.

Galaxies are created by and can only exist about a black hole. This explains why the Cosmic Microwave Background Radiation slows when passing through galaxies, since black holes would obviously slow passing microwaves. Once you consider this, doesn't it seem ludicrous to consider a 'Big Bang'? In this case, there was no 'Big Bang'. The universe is infinite. Stephen Hawking, the best black hole theorist to date, once theorized that black holes do in fact make particles.



[*The lines depict paths of particles which flow free between bosons in that particular format.]

As the galaxy has its 7 parts, so does the periodic table. Each element will surround itself, and is bound by, a particular number of bosons – thus giving it time and space. Formats 3 to 9 (7 total) give time and space for either the element, or the space near a black hole within a galaxy. The disruption of particle flow/time's flow between bosons gives any format the ability to have permanent weight, molecular bonding ability, color, etc... just as any element would. That is, the disruption is the matter which is trapped between the bosons and disrupts the flow of free particles traveling between bosons, These free particles may be any lepton, meson, pion, or kaon. The higher formats have a higher 'vortex' ability. That is, these allow storage of larger particles, and more of them. Pure evidence of this is lithium, and how it suppresses heat so well. It may act as a living vortex when linked with other elements. (Good reason for its use in thermonuclear reactions.)

Another proof of the theory of bosons composing time/space formats; Take graphite dust for example. Place it in a vacuum of air within a glass container. Expose this dust to direct sunlight. The dust will spin in well-defined recurring trajectories in a clover-leaf pattern. Each element in the periodic table will give a different result. So depending on the molecular bonding arrangement, light from the sun will cause the element(s) to shed leptons off in one manner or another, as the bosons, which contain this atom between its format, will be influenced differently by light which oscillates them in 'boson kinetics' – which is the only explanation which could be deduced as a projectively geometrical solution to the unified theory. The elements will each have a level of, and angle of execution for, an ionic based thrust created by this radiation as it deforms the natural 'dead' state of the atom, into an oscillation of the format. Each element maintains ion state by surrounding particle aura density/size.

Yet another proof:

Going up in number on the periodic table of elements, the 'charge' of the nucleus increases. Here are the ACTUAL numbers for the atomic RADII MEASUREMENTS IN ANGSTROMS...

[From Nebergall, Holtzclaw, and Robinson, 'General Chemistry' 6th ed., DC Health, Lexington, MA.1980]

Lithium__ Beryllium__ Boron__ Carbon__ Nitrogen__ Oxygen__ Flourine

1.52_____1.11_____ .88_____ .77_____ .70_____ .66_____ .64

If the radii change as overall atomic nuclei 'charge' counts increase (which they do), and the charge may be proven to be directly related to the boson count for atoms, who could possibly argue with this theory? [Keep in mind that 'charge' is a word used by physicists to explain how certain particles attract or repel.]

[Click here for a useful link; "Atomic Nature Of Matter".](#)

The charge of the nucleus doesn't really attract more by itself and the interaction of photons, but allows bosons to assemble about the quark matter creating a much greater assembly of particles overall and a higher form of atomic mechanics – [higher count of centrifuge mass.] In reality, no particle may 'attract' another, but larger particles do have the ability to cluster in a sea of waves made by smaller particles, just as soap bubbles would on the surface of turbulent water. This happens with mesons (responsible for thermal kinetics) in format 4, as the mechanics of format 4 will allow thermal waves to orbit internally. You may find pions and kaons use other orbital waves in higher formats, as it is all by rule of the size of the bosons.

Consider that the so-called 'physicists' today don't care about solving the mystery of this type of evidence. To date, there are only a very few sources of all the experimental evidences being used to solve a unified field theory, and worse yet, they are only utilizing branches of the only root of all geometries. Why do they continue to build on a broken foundation? Every theory to date utilizes a concept based on branch geometry, of which it has no direct experimental evidence of its own existence!!! Perhaps they are trying to keep employed?

The following is an example of gobblygook. It is not how anything can work. Yet it is not far off from what they are teaching in our nation's colleges. Not shown are the 'photons' which are supposed to relay between the particles shown and somehow 'suck' them together. The most modern M theory utilizing p-branes is not much different. The atom still 'sucks' to maintain stability. It is not possible for any particle/quanta to bound between two others and to create an action of mutual attraction. The opposite would happen, as if time were acting in reverse. Kinetics can be the only reality of real particle physics. If time were acting in reverse for any of the forces they have described, this would mean they've got that part of the atom inside-out. The force I speak of is gravity. Using string theory, gravity works backwards when passing light speed, or when entering the event horizon of a black hole. Containing the atom with bosons fixes this problem, while still allowing the center of the atom to 'suck' as it would seem, but only because kinetics forces strong and weak force 'centrifuges' to attach themselves to the 'string like' flow of particles passing between bosons. Obviously these centrifuges are held in place as they are caged by surrounding bosons in kinetic resistance.

You may wonder how the bosons conform to the element/atom while the atom is subject also to containment between bosons. The answer is simple. Time's passage (free particles flowing between everything) gives all like sized particles surface tension between one another, so long as there exists a smaller particle sea where this can happen. The modification is as simple as 123. The latest M theory shows atoms as an arrangement of particles in a p-brane group which forms a 'diamond' shape, and what would a shape be between 4 bosons? Go figure.



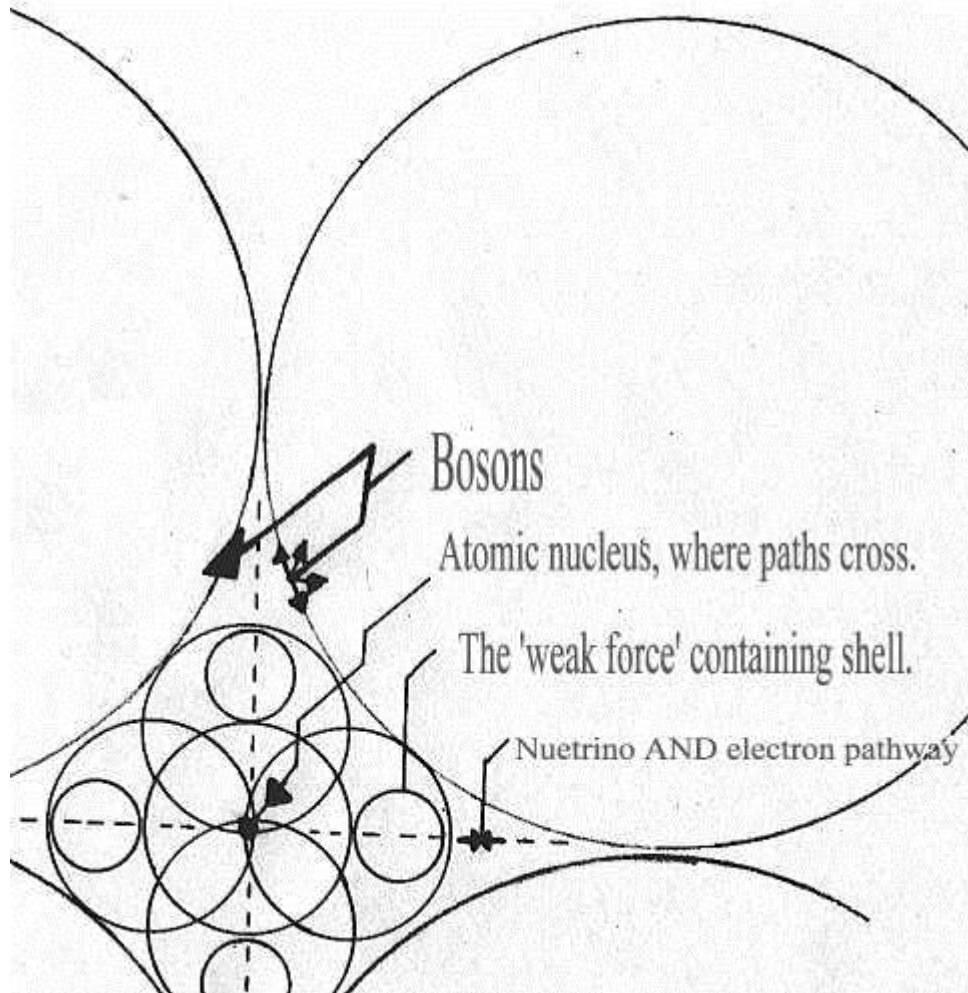
Inertia: A comparison with Schrodinger's cat; an approaching object will seem to shift to the blue spectrum, while leaving shifts to red. What is different, however, is that non-stationary objects, relative to surrounding bosons only, complete their cyclic interactions non-uniformly. Time is altered on two sides of the sphere initially, and once inertia is set, as particle weight moves, nothing can prevent this but ion exchange by one of a number of methods. One would be molecular pressure from another object, as in maintaining the correct count of all particles between bosons in time's passage. This exchange of kinetic force must influence the bosons directly to do so. The other would be for the object itself to change ion states from one side to the

other, as ions are directly relative to weight since they are set by bosons counts in grouping and separate distances. In a matter of speaking, all matter is always in motion in all directions simultaneously. Understanding this will prove useful for the section on 'dematerialization'.

FORMAT 3 BASED ON A 2D PLANE

FORMAT 4 BASED ON A 2D PLANE

THE 4 CIRCLES ENVELOPING THE 4 WEAK SHELLS REPRESENT THE MESON ENVIRONMENTS



As shown above, format 4 allows for thermal wave orbits, while format 3 holds mesons responsible for thermal activity in random flux as a state of thermal entropy.

Below is a depiction of format 5 based on a 3-dimensional plane, as it would house the gold (Au) atom.

(Quark matter is not shown.)

THE 4 FORCES OF NATURE FROM STRONG TO WEAK....

Strong: The force inside the center of an atom; this is possible as particles which continually pass in succession through the atom's bosons will allow 3-dimensional crossing points of its own. About these points particles will oscillate faster than anywhere in the atom, and since bosons are difficult to displace, just as difficult then to displace would be the matter held in oscillation of one of these junctions in oscillation.

Weak: This force is an allowance of both local time and space granted to it by the preoccupying strong force. Because of the strong force, particles (for ex: the mesons in copper in F#4), will internally form orbital waves in, for example, 4-leaf clover patterns. These patterns though based on 2d planes, are in fact 3-dimensional, and thus create a spherical particle vacuum in their oscillation which in a 'sea' of particle noise and waves, much like bubbles on the surface of water, will internally contain for example quarks – strange, charmed, bottom, and top.

Electromagnetic: This classification shows how over either very short or very long distances, particles of specific weights are exchanged, as elements in particular molecular bonds have the ability in their formations to use time's passage in moving them a particular direction. This is only possible by molecular bonds of successive atoms aligned to strain ion compression between themselves from one point to the next. This may be as little as two differing elements.

Gravity: The 4th force to be set by the rule of ion states. This force is possible because atoms are all living vortexes, processing passage of many particles – especially neutrinos. Any element nearby emits waves relative to its own molecular bonding orbital waves which dampen a field between the two attractors. This dampening field of relatively lower frequency, or at least not random, makes the atoms lose its neutrinos away from each other, as their unstable groupings will simply fly off, and in this exchange allow the atoms/attractors to 'push' towards each other.

Source: There is no direct link to Mike Hanson's website which hasn't been active since August 15, 2001. I, Gary Vesperman, lost contact with Mike Hanson many years ago, and I haven't been able to find him using various people finder websites. He was in Texas (?) and then moved to Portland, OR?

To access his site, first Copy <http://www.geocities.com/ResearchTriangle/Lab/6771/magnet.html>. Then click on <http://www.archive.org>. Paste into www.archive.org's Wayback Machine. Then first click on '2001', and then click again on 'August 15'. The proceeding article will appear. At the top of the page are links to his pages (reproduced below) on anti-gravity, dematerialization, and DNA/RNA. Not reproduced here is his interesting page re earth axial shifts, how the Siberian mammoths were quick frozen, etc.

The Anti-Gravity Page

Once you understand the basics of particle physics, and what my modification does, you may read on. I've also mentioned how each element surrounds itself with a particular number of boson particles based upon its ability to disturb and use 'free' particles, such as electrons, mesons, leptons, kaons, and pions – thus giving it weight, color, its own time, molecular bonding properties, etc....

To an atom, its weight is allowed only by its increased format number surrounding by boson group numbers. The amount of quark matter within determines how much the atom inducts time's passage (neutrino flow) and vortexes its force (transforms). Now what if you can make these bosons group without the quark matter long enough to use the altered weight state as thrust? This would mean that anywhere in space, really anywhere, you may create grouped bosons to use as thrust.

In the simple design of an anti-gravity device, it is required to have ion transformation. This means the boson particles which by their own separation distance and number in a group, are this level of ionization. This is what ionization is, as the free particles which fill the gaps are the yang for the yin.

To make a boson kinetic force or ion transformer, you need 6 spherical layers of copper, a copper ball at center, and a micro-thin lattice of quartz/gold grown on the skin of the outermost spherical layer, accurate to .7 microns. The process to create this is beyond any earthly technology, but with the help of monopolar

magnetism, you may grow this lattice to scale within H₂O, as the gold spikes need to orient to spherical center within the lattice of quartz.

This simple plan, if followed correctly, will produce for you at least 20 times the thrust needed to lift its own weight, and copper is heavy!

Copper spherical layers must be complete, and welded from hemispheres to a mirror finish or close to it. General surface tolerance for error = 15/10,000'ths in machinists' terms.

You must use a conductive copper alloy, not pipe alloy. Zinc and aluminum may be in the mix minimally. Copper used in wire is comparable.

Separate copper layers with a non-conductive.

If made actual size, suggest a copper rod of 2/16 to 3/16 inches width, which contacts the copper ball at center, and is separated from spherical layers by a coat of plastic, or glass.

How does it work, free energy, more

Electron photography performed by two head professors (from the University of Texas) proves enough power in the form of electron clusters bounds through the space the size of a ladel jar (about 2 cups) to run a nuclear carrier. This technology shows how to tap the energy source with monopolar magnetics! I found it obvious that this energy is stored in the ion states of space.

First, bosons battery these electrons, and other related particles which make electricity possible. The complete sphere has the ability to extend lines of magnetic force from one point at spherical center, to all points about the sphere. Lines of force will hold bosons at bay (keep them out of the sphere in a boson vacuum) as free particles such as electrons are taken in. It does this by

- 1: Creating boson modulation in a pump z wave format.
- 2: Synchronizing this wave comes naturally about the sphere, just as dropping a pebble onto water's surface.
- 3: Passing the pump z wave through multiple layers of copper sets successive waves in sync, yet out of phase with proceeding waves.
- 4: Once multiple out-of-phase waves pass through the nonlinear medium at spherical center (in the ball), all waves combine to form one higher frequency. This means no longer can the original wave frequency (lost from bosons) attract bosons, but can now only attract particles a fraction of their size!
- 5: As the new higher frequency wave attracts small particles, the natural thing for copper to do is build an electrical charge. A similar technology is used in lasers, but works with light instead. Another example is sonoluminescence, which is actually explained here, and only here, with the idea of bosons formatting space, and giving time degree.

Lateral maneuverability

The method of producing thrust here is simple, but what good is upward thrust without some manner of maneuvering laterally??? In order to do this you must build 3 identical spheres, placed in lateral triangular formation, separated by just slightly more than 1 sphere space each. This will cause a mutual influence to alter the shape of the boson particle vacuum 'bubble', which is not unlike a bubble rising in water. If the 3 spheres influence each other, they all become lenticular/flattish – allowing you to tilt the set of 3 to the right, for a maneuver to the left (opposite idea of a helicopter's tilt-path-plane).

Other effects of the anti-gravity sphere

Light! And plenty of it. This design produces not only light, but massive amounts of radiation if used at full output. This is a direct reaction of pump z wave production from ions. Continued exposure will cause radiation poisoning. Shield self with a layer of gold leaf or gold electrocoated metal at a safe distance from the device. Theoretically, it will produce enough X-rays at any normal output to destroy film in seconds. The idea is to reflect the radiation downward from the craft, avoiding humans of course.

I am looking for funding to build this project or one related device which will once and for all prove the technology. If you are interested in doing this under contract please contact me. Possible outcomes of projects funded up to 20K include:

Free electricity

Anti-gravity by dematerialization

Silent ion thrust device

Superpositive ion flow production for use in forcing speedy growth of DNA or RNA, to be used in the medical fields as well as growing plants.

Supercooling ability; one device plan shows how it is quite easy under any physics theory to cool thermal kinetics, very useful to cool microprocessors to an estimated -330 degrees F., for faster processing time at much lower cost.

Massive artificial crystal growth without lasers; It may be possible to grow precious gems with one or two of my devices, as crystalline structure can be manipulated well.

Producing large quantities of certain ceramic materials at extremely low cost.

The Dematerialization Page

Dematerialization of space

Before you read this, read the physics and antigravity pages (above).

Closer into the center of galaxies, you will find a much greater flow opposition of inbound boson particles and outbound boson 'parts'. Also in this space, meson particles, responsible for thermal kinetics (all heat levels in any atom, thermal expansion and contraction) will replace electrons in orbits. Dematerialization is a constant in such a place, as also space is much more compact. As you see the format 3, its natural state for the bosons is to separate from each other a good degree more than in format number 4.

Compiling together three ideas at once allowed me to figure out a plan for a device which will 'dematerialize' space, artificially – something like a miniature black hole or galaxy model. Imitating space as it exists nearer a galaxy's center/nearer a 'black hole' (each galaxy has one at centerpoint) is fairly simple. I will not disclose plans for this upon the website. However I will describe to you how this works.

One dematerializer device is fairly basic. You build a device which suspends H₂O in the air wrapping completely about a spherical area. The H₂O creates lines of force necessary to sustain its presence in the air, allowing for a spherical wrap of the H₂O under molecular bonding surface tension – which retains the spherical shape, and is a self-correcting shape just as any other bubble having surface tension by molecular bonds. In this case the bond becomes extremely strong. It does this by both creating flow opposition of electrons (initially – but working its way up in particle weights as the particle vacuum increases) against bosons to create lines of force with vapor. Much like the image above showing a cross section cut, there are 2 layers of copper (spherical) on the way in to the copper ball which transforms the pump z wave released from the H₂O – by allowing wave focus inside copper.

The transformation of electrical pulses inward from the water (happens naturally in sync as a pebble would make waves on a pond) is what pulls in other particles larger than the electrons, as the copper ball, by rule of time/space format must maintain a balance of particle weights.

Space may shrink in order to hide from the effects of time...

Consider any atom, or just plain space. It holds within it many particles which are not bound within any atom, but move freely from one to the next. The dematerializer extracts many of these in order to bring boson particles closer together, as they are the only particles which refuse to be made a vacuum of, since they are the ones making the vacuum of other particles in this design. There are three weights/classes of these known. Increasing the number of bosons which occupy a space is what happens as you would try to make a vacuum of these utilizing the lines of force. It is possible because meson particles are running a loop circuit, allowing awesome amounts of thermal order without either fusion or fission between the bosons.

Four Dematerializers can Neutralize Radioactive Waste

Gary Vesperman's website www.padrak.com/vesperman includes a link to Vesperman's list of radioactivity neutralization methods. The list includes:

9. Dematerialization device A using highest powered positive ions ever; Mike Hanson.
10. Dematerialization device B using highest powered positive ions ever; Mike Hanson.
11. Dematerialization device C using highest powered positive ions ever; Mike Hanson.
12. Dematerialization device D using highest powered positive ions ever; Mike Hanson.

(Hanson's dematerialization devices transmute any waste into its lowest possible harmless form by passing it through a dematerialization spherical boundary – an extremely active boson field kinetics area of plasmatic surface tension/extreme heat.)

(The following is a highly condensed, rearranged and edited version of email correspondence between Mike Hanson and Gary Vesperman in 1999. Note that the topics don't always flow smoothly from paragraph to paragraph.)

I found it interesting that transmuting waste was already accomplished utilizing positive ions, considering my device can make the most positive ions ever possible, plenty of them, and without a cent spent on power to create the ions....

How does one get positive ions and not spend any money?

Gary, I have designs for 4 different types of dematerializers. Any one of these will create enough radiation to kill if you get close enough to it. So please take care if you plan to experiment. I suppose I should put this warning and more on the web site accompanying the plans.

This is old news, unless you're talking about high-level nuclear waste. However, primarily strontium 90, is used to give more power than the original in Paul Maurice Brown's nuclear battery. Originally it was 'Nucell' of Portland, Oregon in the 1980's. Then they lost the license to handle waste for poor procedures. I know it's in use today, but where or who I don't recall. I read also a publication from the International Tesla Society about some chemical reaction performed in a bucket of all places to burn up nuclear waste. Well proven.

(I am pretty sure Hanson is referring to the Keller catalytic process AKA 'volcano in a can'. Vesperman)

I didn't mention it in my web site, though I know it is possible to transmute any waste into its lowest possible harmless form by passing it through a dematerialization spherical boundary – an extremely active boson field kinetics area of plasmatic surface tension/ extreme heat.

That would be high-level nuclear waste, including stontiums. Strontium is used in Paul Maurice Brown's Nucell nuclear battery by the way. Anyway, yes this would be a new method of degrading it to a harmless form.

Q: How? How does this work?

Well let me in on it. Let's get a cut. Just have to build a device. Dematerializers are made small or large. May only cost a couple of thousand???. Copper spheres are easily lathed, but exacting the outward flow of electrons from 4 points may be difficult.

Gary, yes, it can. It has the ability to heat the stuff hotter than the sun – to the point where anything is converted into its lowest form. Nuclear waste, primarily strontiums, will annihilate themselves since their almost unnaturally huge dent in space/time dissolves to near a low format environment. I would really like to explain this to someone who is actually serious about doing something with it before our nuclear waste dumps sink into the ocean during the coming equatorial shift in May or so, 2000. The shift, which is based on the energy grid for axis of alignment, will turn the earth to a new rotational axis based on a point of the 'Greenwich Meridian'. (Those old guys knew something about the grid before we even began a world time line). Once the earth begins to spin on a new axis, the crust will stretch out a bit, changing earth's shape. What you may have seen in Gordon Michael Scallion's new world map isn't far off from the truth. So what if he's a screwed-up prophet.

DNA/RNA Page

If you can see how the boson format idea will answer the unified theory puzzle, and how the quartz/gold lattice globe may create superpositive ions which are heavy, you should understand how R.N.A. or D.N.A. may easily replicate under what I call 'ion strain' conditions.

Consider how a plant grows, or how you grow. Ask yourself what the 'invisible' force is, which moves particles through the DNA or RNA strand to grow. It is indicative of a force which comes from the sun, earth, moon, and galaxy, working together. This force is an ion, or 'boson format' number strain. While this force works only so very slight in nature, I believe I have found a method of turning up this effect many fold.

If you release format number 7 from the quartz/gold lattice globe described on the anti-gravity page, within a few feet or inches from the DNA or RNA, (above it), the superpositive ions inhale many free particles from the tissue upon the point of direct contact. The induction of these free particles is forcing free particles to carry minerals faster though the strands of tissue, as well as give these minerals an environment in which to link upon strand ends with much more speed, and without increased possibility for error in replication. One could estimate a broken leg may be healed in minutes, or a deep cut in the skin may take only a few seconds to heal.

DNA or RNA are very much just like any communicating device, yet use particles larger than electrons in wave transmission. Electricity may cause a light bulb to glow, or a skillet to warm, but the combination of water, which is magnetic in nature, working with many other elements on the periodic table, is what forms all living things into existence.

To access his other site, which has not been active since April 14, 2002, first Copy <http://www.geocities.com/mw0440/magnet.html>. Then click on <http://www.archive.org>. Paste into www.archive.org's Wayback Machine. Then first click on '2002', and then click again on 'April 14'.

The website's topics include:

- Antigravity: ion propulsion – build your own spacecraft parts
- Thermal transformer: transform heat into direct current
- No-brainer summary of my M-theory modification (Reproduced below)
- Light speed and light speed travel (altering time's speed inside a sphere.)
- Earth rotational axis changes past and future (Interesting but not relevant to space travel)

(The first two pages and the fourth page are unfortunately not available. Vesperman)

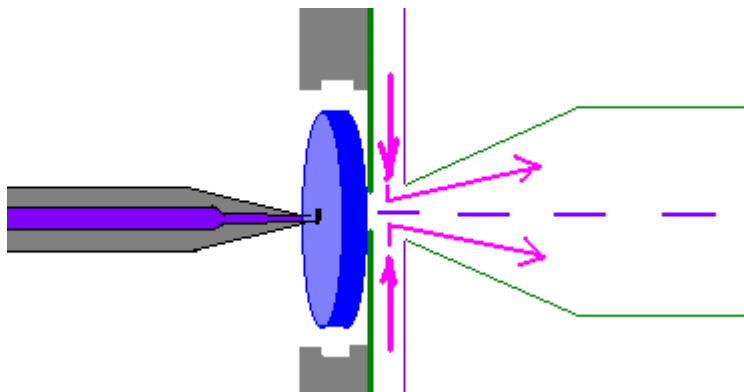
A Summary of My M Theory Modification

There is no simple way to summarize a theory in particle physics. Putting this as simply as possible however: Particle physics is just that; particles. There can be no imaginary items used to explain reality. I've seen physics explained using branch geometrical concepts only. But ask yourself, do you exist in a branch geometrical concept? To bring gravity together with all other equations, one must resort to this projective concept I've devised. The latest M theory may have us closer, but still has no proof. Many of my ideas, I found have already been thought of to some degree in the past. The vortex atom, using projective geometry to explain physics, etc.... M theory is the most accepted now, because it uses multiple dimensions to explain physics. My idea uses 9, and from what I understand, M theory uses 10. Some modeling done with M theory's atoms show the atom to be diamond shaped. This was an idea I first introduced in 1996, before M theory was published. The reason the diamond shape works better, is because it shows how the atom is working as a diamond shape. The diamond shape is necessary if it is to have its particle mechanics occurring between sets of boson particles, as only I have theorized!!! Their theory still has no basis for the photon, and its reason for shape. My theory shows how shape logically falls into place, as do all mechanics of the atom, working with all the forces as well.

Mike Hanson's Hydrogen Charging Vessel

(From Mike Hanson's July 20, 2001 email to Gary Vesperman, etc)

You know hydrogen is volatile and can be used as fuel, but little does anyone know that superpositive charging of hydrogen will align it to crystalline structure for a few seconds. During this period, any electrical spark will fuse the atoms of hydrogen with great speed. Speed means increased volatility. This means at least three-fold in volatility increase. Spinning a superconductor disc at 85 cps or more, and injecting hydrogen directly through a laser small hole shot through its center will produce the desired effect. See below for schematics of hydrogen charging vessel.



Gary Vesperman suggests experimenting with crystallized hydrogen or even deuterium as fuel for self-confined thermonuclear reactions. See Vesperman's "Ball Lightning Fusion Reactors" in his three websites.

Magnetic Vortex Drive Engine

The following is Larry Woods' November 27, 2013 email (edited) to Gary Vesperman describing his 'magnetic vortex drive engine'. Larry has a Ph.D. in Electrical Engineering from University of Missouri-Columbia.

The accompanying figure is one representation of a possible magnetic vortex drive engine.

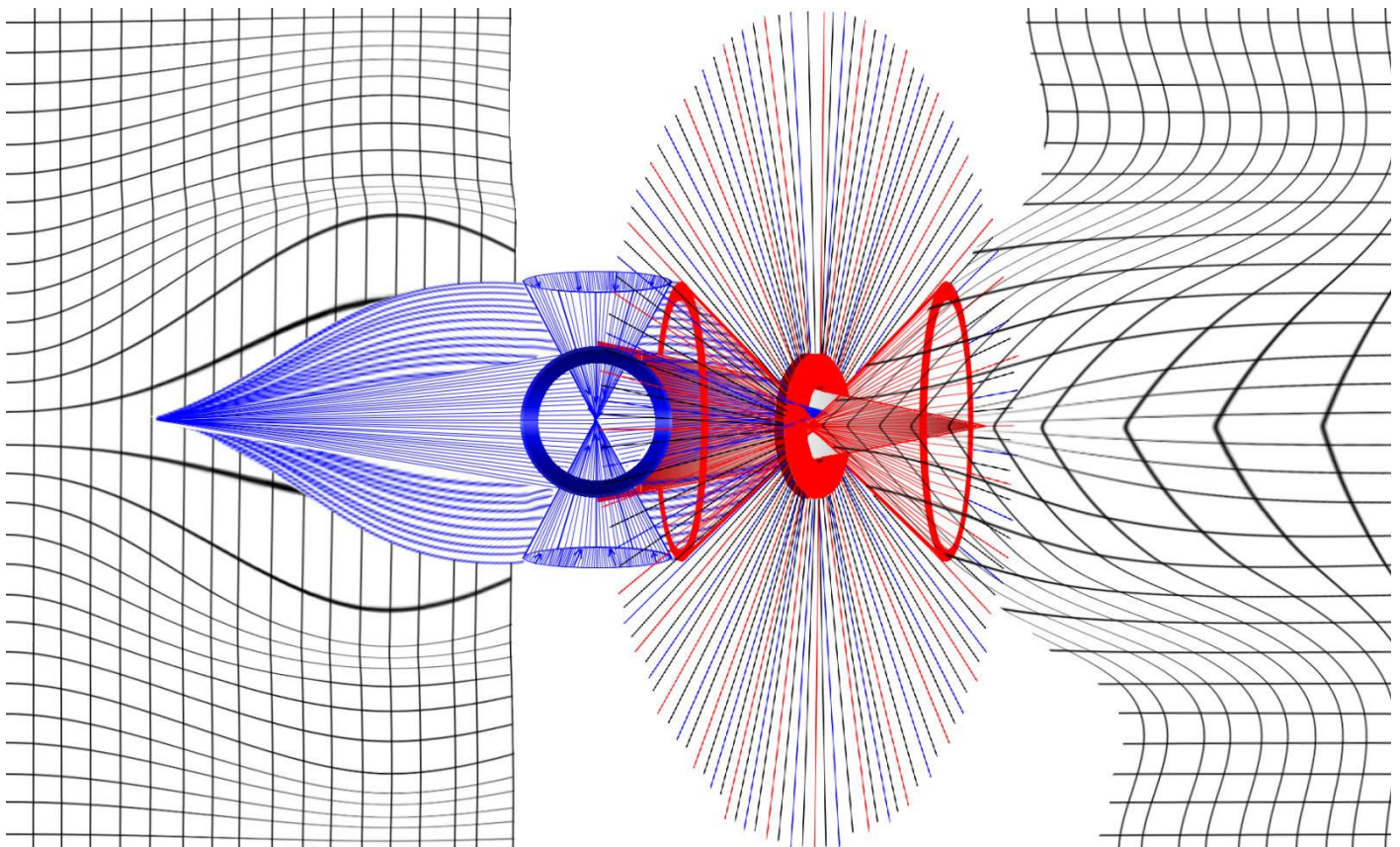
One way for this system to work follows the Schauberger principle of vortex cavitation. The difference is, where Schauberger used a vortex of wind, replace that with a vortex of magnetism. The same effect would be accomplished.

This is the principle of operation:

When any magnetic flux line is influenced by a different magnetic field all flux lines on the same vector are simultaneously affected.

My concept of the construction would be as follows:

Use four vortex toroidal coils. These will be assembled into two pairs of matched coils. The first pair is physically attached North Pole to North Pole, so that the toroidal shape created projects a South Pole from both sides. For the sake of this discussion let us say we position this on an East - West orientation. Second pair the same except South Pole to South Pole. Position this pair in North - South orientation.



When energized these two pairs of coils attract each other and create two bi-directional magnetic fields at 90 degrees to each other. This expands the magnetic field in the East - West direction with an expanding vortex and collapses the field in the North - South direction. The field created by both expanding and compressing local magnetic fields propels a craft as if it were falling into a hole (one created magnetically).

The neutral point between these two fields is the location of crew friendly habitat. All hull surfaces pointing toward the center would be where the affect of what we might call magnetic attraction would create some semblance of gravity. Anyone inside this craft would not be affected by inertia because they would be inside the magnetic field and only affected by it. Therefore almost any angle and any speed turn is possible.

The power supply for such a system would, of course, be a magnetic drive generator. A description of the magnetic drive generator is available in "130 Electrical Energy Innovations".

Review of H. David Froming's Research Papers on Breakthrough Propulsion Physics

By J. David Baxter

Propulsion Requirements for a Quantum Interstellar Ramjet¹²

The zero point energy density is 10 to the 95th power in grams per cubic centimeter, according to Wheeler. The density of nuclear matter is 10 to the 14th grams per cubic centimeter. A particle is not the primordial entity of our Universe. It is a weak alteration in a pattern of fluctuating geometry. This is called quantum geometrodynamics. Cosmic space itself is the primordial entity. A spacecraft would represent a weak alteration in the fluctuating geometry of the space it travels through. Zero-point energy is a major component in the Lambert-Rutherford shift in the energy level of the hydrogen atom. Coupling matter with zero-point energy would be required for starflight. He went on to give some mathematical calculations that I can't represent with my computer keyboard.

Use of Vacuum Energies for Interstellar Spaceflight¹³

In the Universe, hydrogen atoms average 1 per cubic centimeter. There are 1000 atoms per cubic centimeter in interstellar gas clouds. According to general relativity, empty space contains geometry, and this is the source of all physical structure. This geometry bent one way is gravitation. Excited in another place, it becomes a particle. (Wheeler 1968). The Heisenburg Uncertainty Principle associates the Planck length time the speed of light over a given length, with uncertainty in measurement of energy with a spatial region of dimension L. Also, calculates in probability, the expectation value of the vacuum fluctuation, in that spatial region. Welton in 1948, discovered the quantum fluctuation of empty space. Dyson, in 1954, showed that a perturbing effect of zero-point energy on the electron motion accounts for a shift in the energy level of the hydrogen atom over it.

This takes place over 10 to the minus 12 cm scale of distance. The Planck length is 1.67 times 10 to the negative 33 cm in a given local Lorentz frame, at rest with respect to Earth. Zero-point energy resonates at scale varied topology. (Wheeler, 1968). Fluctuations occur rapidly over very short distances. Changing amplitude can be expressed in units of energy, mass, or density. This superimposes upon larger space-time structure, with flat Lorentzin space-time -1,1,1,1, with coefficient Planck constant times 6 divided by the cube of the speed of light, all divided by the dimensional length. Length cubed with space curvature.

¹² Journal of the British Interplanetary Society, Volume 33, pp 265-270, 1980.

¹³ July 1985 (article published) McDonnell-Douglas Corporation, 36th Annual Astronautical Congress, Stockholm, Sweden, Oct 7-12, 1985.

Quantum fluctuations in geometry and topology of a given dimension, will manifest itself as gravitational wave energy, and electromagnetic wave energy. There is a high probability of structure within the Planck length. Radiant energy would manifest itself along a starship's line of flight. Much math was shown, that I couldn't represent with my keyboard. Quanta is emitted at right angles to the line of starflight. Acceleration would be inversely proportional to the starship's length over density.

Field Propulsion for Future Flight¹⁴

Zero-point energy is observed in the Lambert-Rutherford shift in energy level of a hydrogen atom. It is also manifest in the Casimir force. Stochastic process of kinetic vacuum fluctuations, caused by the quantum charges in the vacuum state of space. Energy density within a given volume of space, associates over that in which the energy occurs. At atomic nuclei distance, zero-point energy density compares to the nuclear mass. Dr. Puthoff suggests that the stability of matter itself, may depend upon underlying zero-point energy of great magnitude. Gravity, according to Sakharov, is an induced effect of the continued interplay between zero-point energy and mass. Winterberg believes the vacuum is a superfluid that is a consequence of circulatory vortex-like-motion. Quantum dynamics may give rise to quantum forces similar to friction. It has pressure density, and viscosity.

Prijogme shows that non-linear systems, under the right conditions, evolve from disorder toward macroscopic order. Some electrical rectifiers and plasmas show this, according to King. Millis says it can be gravitationally coupled. The basic requirement involves emission of electromagnetic radiation, or particles. It could also involve an intense electric charge or magnetic flux. All of this strength and modulation would be coupled to zero-point energy, or its related space-time metric states. Tools, to make this possible, include power, pulse width, and frequency for modulation. Also, possibly polarization, and rotation. Must change vacuum field around the spacecraft, for both propulsion, and braking. We must cause unbalanced zero-point energy pressures for trust. Less radiation pressure in the direction of travel, and more radiation pressure pushing from behind. Field forces would have to deflect particles at high speeds, especially speeds many times the conventional speed of light.

Inertia Reduction, and Possible Impulsion by Conditioning Electromagnetic Fields¹⁵

Electromagnetic fields can be specially conditioned to couple with gravity. Propulsion takes place by action and reaction of fields. An electric charge or magnetic flux can interact for propulsion, with electric and magnetic fields existing in space. This would include fields of space caused by the flow of charged particles, and the rotation of celestial bodies. These effects are mild. Zero-point energy could be the key for coupling. Bringing inertial resistance to zero would amplify the effects of space fields.

Great acceleration with very little force of thrust would be possible. Also deceleration with very little force of thrust. There would be very little stress on the vehicle and its inhabitants. Zero-point energy is isotropic in undisturbed space, and Lorentz invariant. Such is not the case with accelerating bodies. Haisch, Rueda, and Puthoff suggest that the inertia of bodies might be the result of spectral distortion of zero-point energy in inertial frames of accelerating bodies, and of a resisting electromagnetic Lorentz force that arises from the distortion.

4. Each zero-point energy fluctuation has radiation pressure. With the Casimir force, unbalanced radiation pressure is caused by fewer fluctuations between the plates. Scharnhurst calculated that the velocity of light, in an area of reduced zero-point energy fluctuation density, is greater than light speed, in an unconfined vacuum. General relativity has gravitation in a spacetime metric associated with the cosmic distribution of matter. Einstein's correspondence principle equates gravitational mass with inertial mass. A perturbed spacetime metric, would changed both gravity and the inertia of mass. Sakharov and Puthoff suggest that gravity arises

¹⁴ H. David Froning, Journal of AIAA Joint Propulsion Conference, Sacramento, California, June 24-26, 1991. McDonnell-Douglas Corporation 5615A, May 1991.

¹⁵ H. David Froning, T.W. Barret, 33rd AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Seattle, Washington July 6-9, 1997. Space Travel Innovations

from the continual electromagnetic interplay between charged particles of the Universe and all the zero-point energy fluctuations associated with them. Perturbations that decrease permittivity and permeability increase the speed of light, both ahead of, and behind a spacecraft. This process decreases zero-point energy resistance to accelerated flight. Negative energy densities would exist in the perturbed regions. This would be the result of electromagnetism emitted reduced zero-point energy fluctuation density, similar in affect as that between two closely spaced Casimir plates.

All matter and radiation can be described in terms of gauge fields. The sources for these fields are conserved quantities. The Abelian gauge field is dissimilar in essence from source to generation. Non-Abelian fields and sources are identical. Electromagnetism is Abelian. The weak and strong forces are non-Abelian. Non-Abelian fields result in higher internal symmetries. Electromagnetism = U(1). Weak and strong forces are SU(2) and SU(3). Yang states that gravitation is non-Abelian. Barrett has shown the possibility of conditioning electromagnetic fields, to make them non-Abelian. It should be possible to couple spacetime/gravitational fields into the same vector potential. Zero-point energy is U(1) symmetry. Inertia is interaction between fields of a charged substructure of an accelerating mass. Gravity is non-Abelian, but it is a consequence of zero-point energy. ZPE could be given a component of higher symmetry than U(1). It could become manifest with acceleration.

Polarization of the right condition can be radiated from antennas, or from apertures of radio frequencies, or laser transmitters. This would require a rotation through all possible orientations within short time intervals.

5. It should be possible to polarize electromagnetism to a gauge SU(2), that can be coupled with gravity. Gravity itself can be modified within a beam of polarization. This process can change the electrical permittivity and permeability and wave front speed past conventional light speed. The process would involve polarizing electromagnetism rotated 90 degrees, and phase modulated. Another fraction is expanded into the other wave modulation, and mixed with the remaining fraction. Vector potential conditioned electromagnetic fields can also be moved through a toroid with single windings. The process would intensify peaks coming at various resonant frequencies. This could be accomplished in the radio frequency microwave range. The article also gave Maxwell equations for U(1), and SU(2) symmetries.

Source: <http://www.utahspace.org/special/froning.html>

Orgone Energy Motor

In the mid 1930s Wilhelm Reich, MD, began noticing an energetic connection that is shared by all living beings and had the clarity of mind to not dismiss the observation as unimportant. Dr. Reich called this energy 'orgone' and worked for decades demonstrating its laws and studying its various manifestations.

Dr. Reich in 1948 built a 'synchro' type of electrical spinner motor to run from both an orgone energy accumulator and an orgone-charged high-vacuum tube. James DeMeo and Nicholas Reiter have each written an article on the orgone energy motor construction and use, with eyewitness quotes and many construction details. DeMeo has also published a third article on the subject of electrostatic motors, which are powered by sources bearing some resemblance to what Reich used in conjunction with the orgone accumulator.

James DeMeo's "Orgone Energy Accumulator Handbook" has on its cover a spectacular photograph of an astronaut on the moon with a blue halo around his spacesuit (http://www.amazon.com/Orgone-Accumulator-Handbook-Construction-Experimental/dp/0962185507/ref=sr_1_3?s=books&ie=UTF8&qid=1327935772&sr=1-3). The astronaut's blue halo is thought to be a visible manifestation of orgone energy.

(Sources: Emails from James DeMeo, <http://www.proliberty.com/observer/20030310.htm>, <http://www.orgonelab.org/cgi-bin/shop.pl/page=xpulse.htm>, <http://www.orgonelab.org/cart/xpulse.htm>, and http://pw1.netcom.com/~rogermw/Reich/orgone_motors.html.)

Orgone Energy Accumulator for Anti-Gravity

A Joe cell (see below) is thought by some people to operate as an orgone energy accumulator. Anecdotal reports by Joe cell experimenters have included observations of slight to moderate anti-gravity effects. See http://peswiki.com/index.php/Directory:Joe_Cell.

The Moe-Joe orgone energy cell (see below) when installed in a car sometimes makes the car feel noticeably lighter as well as more powerful due to a possible anti-gravity effect. When unpacked and assembled without even having been filled with specially charged water, a Moe-Joe cell when picked up will sometimes feel light as an empty beer can. When picked up at other times it sometimes will feel noticeably heavier. The car may have a decidedly different feel of increased speed when it rounds a curve in the road.

Mounting one or more Moe-Joe orgone energy cells in a rocket may reduce its attraction (weight) by the earth's gravity. However, experimenters should first carefully test for strange damage to a rocket's electronics, etc!

Joe's Orgone Energy Cell

The Joe's orgone energy cell basically comprises of two metal containers, one inside the other. Both containers are filled with specially charged and cleaned water with the inner container perforated to allow water to freely move between the inside and outside of the inner container. The outside container is electrically connected to the anode of a battery, and the inner container connected to the battery's cathode. The outside container is closed except for an orifice to which a thin pipe is attached. The other end of the pipe is attached to the outside housing of the carburetor of a gasoline engine. Gas/energy is transferred to the carburetor through the pipe. The entire cell including the pipe must be electrically insulated from the engine. Various designs and shapes of both containers have been experimentally built. The original and simplest comprised of both containers as long pipes with the inner pipe, which was perforated, inside the outer pipe.

At least fourteen vehicles in Australia have been fitted with different versions of Joe's orgone energy cells to be driven without fuel nor battery charging. The engine, radiator and exhaust pipe stays cold enough to freeze water – warranting replacing water in the block with transmission fluid. The timing does have to be advanced between 25 and 80 degrees, depending on the type of engine, to allow the engine to run smoothly. The engine's power doubles over that when petrol-fueled.

The Joe's orgone energy cell is not explainable using conventional mainstream physics. It is not even known if the process inside the cylinders is implosion, explosion, or both. No gasoline is mixed with air inside the carburetor. It appears that zero-point energy is somehow drawn from the ether and converts the air entering the cylinders into some kind of fuel. The inventor claims the process increases the frequency and energy of the air.

For converting existing gasoline-powered vehicles into self-powered vehicles which don't require fuel nor battery charging from a local electric utility, adding the Joe's orgone energy cell seems to offer by far the easiest modification. Nearly the entire engine is left alone. A separate heater would have to be provided since the engine runs cold. The vehicle will not rust, and paint will not oxidize.

Guy McCarthy, guy@twelvestar.com, has provided the following insightful analysis of the Joe's energy cell from a biodynamics perspective at

<http://web.archive.org/web/20060627183223/http://www.twelvestar.com/Sourceworks/Joe%20Cell.html>:

[0.1] The 'Joe Cell' (described in NEXUS magazine, Aug-Sep '98, pp. 43-46) is an electrical device attached to the carburetor of an ordinary automobile engine which allegedly enables it to run for extended periods with the fuel line disconnected.

[0.2] Biodynamics is a science of natural forces and agriculture inspired by the Austrian philosopher Rudolf Steiner. It pre-dates 'Organics' as the original alternative to chemical/industrial agriculture. Biodynamics has achieved limited recognition in the United States and Canada, but is widely practiced in Europe, New Zealand, and Australia.

Main Text:

[1.0] The Joe cell uses water as a storage medium, which, when charged above a certain threshold, collects additional energy as needed by the engine. The initial charge is not depleted as the engine runs, but will dissipate under certain conditions. This matches a key attribute of the biodynamic ether, which attracts more ether to itself once the local concentration reaches a certain threshold. Without adequate boundaries (or storage conditions) the etheric charge build-up will dissipate.

[2.0] The motive reaction in the engine seems to be 'implosion', since the ignition timing must be advanced so far into the compression stroke. (Note that 80 degrees is nearly 2/3 of a typical compression cycle, which totals about 135 degrees in a 4-stroke engine.) Implosion may be considered equivalent to 'a sudden condensation of the ether' which is also thought to be the motive reaction that creates lightning and thunder in the atmosphere. According to biodynamic researchers, condensation is a state change from a more rarefied ether into a less rarefied one, releasing energy in the process.

[2.1] Biodynamics deals with four states of ether which are equivalent to the four elements intuited by ancient philosophers:

Warmth Ether corresponds to the Fire element

Light Ether corresponds to the Air element

Tone Ether (or 'Chemical Ether') corresponds to the Water element

Life Ether corresponds to the Earth element

[2.2] In the physical world, substance tends to flow from a high potential to a low potential. This is what the concept of 'entropy' and the Second Law of Thermodynamics are based on. But in the etheric world of living energies, the inverse is true. Ether is naturally attracted to itself and flows from low potential to high potential. This is why living organisms continue to draw nutrients and life forces into themselves while the rest of the world is supposedly running down. Ether penetrates substance, and substance influences ether. This dynamic interplay is essential to life on the physical plane.

[2.3] Under favorable conditions, the following etheric condensations will occur:

Warmth Ether --> Light Ether, releasing energy as lightning

Light Ether --> Tone Ether, releasing energy as thunder

Tone Ether --> Life Ether, releasing energy as biological manifestation

[2.4] Recall that lightning and thunder sometimes occur independently of each other (as in 'heat lightning' and 'rolling thunder'), while at other times they are closely linked. Clearly any reasonable explanation for these phenomena must allow for both cases. The common notion that lightning and thunder are caused by static

discharge between air masses is clearly untenable. A buildup of static charge in such magnitudes could only occur under extremely dry conditions; the typical thunderstorm is certainly not dry.

[2.5] The biodynamic researcher points to a well-defined cumulus cloud in mid-summer as the ideal collector of etheric energy. Hour by hour it grows, drawing abundant warmth ether from the atmosphere into itself as well as particles of dust and moisture. The cloud builds itself taller and taller – its boundaries sharply distinct from the rest of the sky. Eventually the cloud becomes saturated – turning darker and forming a mighty thunderhead. At this point, anyone who is familiar with weather patterns in open country is headed for shelter. They know that a violent thunderstorm could be unleashed at any moment.

[2.6] Just a few months ago the author observed such a phenomena in central Maryland. The top of the cloud was puffy and brilliant white, illuminated by the late afternoon sun. In contrast, the bottom was flat and dark, laden with moisture. Great bolts of lightning began to crackle about its upper regions. The air felt clear and energized while all around trees were bending and twisting in sudden gusts of wind. When the storm finally broke it was both fearsome and beautiful, a mighty discharge of lightning, thunder, and rain.

[2.7] We can surmise that the Joe cell becomes highly charged with etheric energy, and that this charge is transferred through the carburetor to the air entering each cylinder. As the compression stroke begins the volume of air is compressed, causing a further concentration of etheric charge. Soon the air becomes saturated with ether. At this point conditions in the cylinder are similar to those within the thunderhead. The ignition spark, far advanced into the compression stroke, serves to catalyze a condensation reaction of the compressed ether. This sudden change of state causes the air mixture to contract sharply, generating power through the remainder of the compression stroke. Therefore the air mixture in each cylinder undergoes a structural change, not a chemical one, and the flywheel is driven by ‘suction’ rather than combustion. With the exception of small amounts of vapor from engine oil and perhaps trace elements from the engine and muffler, the exhaust should be of substantially the same quality as the air intake.

[2.8] Since warmth ether is the most rarefied ether, condensation will have the effect of reducing or consuming warmth. Therefore implosion is a cool process, which tends to absorb heat rather than release it. This matches observations of the Joe cell in which the engine runs cold. Unlike combustion, implosion is a "living" process, and as such produces no waste heat or by-products.

[3.0] All three styles of Joe cell are based on concentric, insulated cylinders. This is similar to the classic ‘orgone accumulator’ discovered by Wilhelm Reich. Reich found that metals tended to conduct ether while organic materials tended to absorb it. By layering the two types of materials together, Reich caused a directional flow of ether to occur. The orgone accumulator was a six-sided box constructed with alternating layers of metal and non-metallic materials.

[3.1] The inclusion of a 1.5-volt battery to maintain the charged condition (and a 12-volt battery to create it) is an interesting variation on the orgone accumulator design. There is precedent for this idea in electrogravity documentation that has become available in recent years. (See the USAF report "Electrogravitic Systems" that was released in 1995 as well as patents by T. Townsend Brown.)

The basic idea is that a charged condenser exhibits a tendency to move towards its positive terminal. This is thought to result from a net movement of ether in the opposite direction (from positive to negative). Therefore a static electric charge stimulates a directional flow of ether.

[3.2] The Joe cell design implies a net movement of ether from positive to negatively charged terminals (i.e. towards the center of the cell and towards the engine).

[4.0] The transfer of energy to the carburetor is accomplished by several different conductors including plastic, copper, aluminum and rubber tubing. The common material in all of these configurations is the 'air' inside the tubing. This is consistent with the biodynamic view that oxygen is an excellent carrier of etheric forces. (Fertile soils are said to contain 50% air for just this reason.) The metallic carburetor housing would conduct the etheric energy to its interior surfaces, where incoming air would absorb it and carry it into the cylinders.

[5.0] In conclusion, the Joe cell offers a compelling view of how ordinary combustion engines might be modified to run on natural etheric energy. This could be an important direction for future research. Validation of the concept could be approached in three phases:

[5.1] Collecting a high concentration of etheric charge. For some ideas on how to accomplish this, see "Geometric Energy Fields" at <http://web.archive.org/web/20060610195423/http://www.twelvestar.com/Sourceworks/Geometric%20Energy%20Fields.html> which includes specific instructions for building resonant etheric devices.

[5.2] Stimulating a sudden condensation of ether by means of electric spark and measuring the implosion effect in a pressurized container.

[5.3] Achieving reproducible evidence of successive implosion events within a small engine mounted for laboratory testing.

For a related discussion, see the "Etheric Weather Engineering" chapter below and in the compilation of "Advanced Technologies for Foreign Resort Project" in www.padrak.com/vesperman. More information can be found in http://peswiki.com/index.php/Directory:Joe_Cell.

Moe-Joe Orgone Energy Cell

The Moe-Joe orgone energy cell is a possibly more powerful redesign of the original Joe's orgone energy cell by Moshe Daniel Block, Montreal, Quebec, Canada, www.moe-joe-cell.com. The Moe-Joe orgone energy cell comprises of four concentric thin spherical stainless steel shells – 5, 4, 3, and 2 inches in diameter. The ball is filled with specially charged water and then sealed. Holes allow the special water to circulate between the inner shells.

When installed in a vehicle, electrodes at the cell's north and south poles are respectively wired to the battery's positive post and engine ground. One end of the flexible orgone energy transfer tube (we used dishwasher tubing) is clamped over a bolt sticking out at about 30 degrees off the north pole. The engine's white plastic L-shaped positive crankcase ventilation (PCV) valve intake is replaced with a white plastic T-shaped PCV intake. The other end of the orgone energy transfer tube is clamped over the new end of the now T-shaped PCV intake.

Orgone energy is accumulated within the Moe-Joe orgone energy cell and guided by the tube into the engine via its PCV intake. As the engine draws orgone energy, the Moe-Joe orgone energy cell instantly replenishes its accumulated orgone energy by drawing additional energy from the universal orgone energy field.

The Moe-Joe orgone energy cell does not generate hydrogen nor Brown's gas. A cell needs to be topped off with only maybe a cup of specially charged water about once or twice a month, depending on how the car is driven. The charged water itself does NOT enter the engine. It is orgone energy that significantly adds power to the engine – possibly as much as doubling its power.

Exactly how universal orgone energy replaces some of an engine's gasoline consumption is a subject of scientific debate. One theory is implosion of orgone energy which enables the engine to run cooler. The above Joe's orgone energy cell chapter offers a detailed explanation of Moe-Joe orgone energy cell theory.

In spring 2008 a Moe-Joe orgone energy cell (sometimes simply referred as the 'ball'), operating as an orgone energy accumulator, was installed in a 1993 Saturn. Orgone energy was transferred from the cell through a section of dishwasher tube into the engine via its PCV valve intake. The Saturn's mileage, carefully measured on an old largely unused and flat highway southwest of Las Vegas along I-15, using the same gas pump in a Chevron station next to a casino a few miles north of Primm, jumped from 30 MPG to 47 MPG. Smog checks before and after connection of the ball to the battery measured a 90% reduction of exhaust pollutants.

A second Moe-Joe orgone energy cell was also installed in a non-computerized 1968 Dodge Charger with similarly positive results. It was fun driving the Charger as it performed like it had a 500-horsepower engine.

The car noticeably feels lighter as well as more powerful due to a possible anti-gravity effect. When unpacked and assembled without even having been filled with specially charged water, a Moe-Joe orgone energy cell when picked up will sometimes feel light as an empty beer can. When picked up at other times it sometimes will feel noticeably heavier. The Charger has a decidedly different feel of increased speed when it rounds a curve in the road.

Shortly after the Moe-Joe orgone energy cell was installed in the Charger, Gary Vesperman was standing behind the Charger's exhaust pipe. His mechanic friend John Martens was tinkering under the hood. When John suddenly moved the throttle to a high power level, Gary's pants were immediately covered with black soot. It was quickly deduced that orgone energy was cleaning out the engine's cylinders.

The Charger's engine normally idles at about 1000 RPM. John has seen it idle as slow as around 50 RPM. No normal gasoline engine on the planet can idle that slowly.

Another weird phenomenon: Sometimes the Charger's engine was emitting a strange whitish 'fog' out of the oil intake tube, exhaust, air filter, and other orifices. Putting one's hand into the 'fog', it doesn't feel at all like the hot steam that boils out of a hot uncapped radiator.

The Moe-Joe orgone energy cell is not compatible with more modern cars and trucks because of the engine computer. What happens is that the fuel-air mixture becomes unusually lean. The computer is programmed to then add more fuel to the fuel injectors to bring the fuel-air mixture back up to standard. An electronic circuit has to be added to modify the oxygen (O₂) sensor signal in order to fool the computer.

To establish a business selling Moe-Joe orgone energy cells in Nevada, the first step would be to hire an attorney to obtain from the Nevada Department of Motor Vehicles an official letter certifying that it is legal to install Moe-Joe orgone energy cells in Nevada-registered vehicles. The estimated cost is \$5,000.

If legal, the second step would be to purchase a pre-computer era car or truck that is in decent shape. After purchase, but before installing a Moe-Joe orgone energy cell, the vehicle's emission should be measured at a smog station. The vehicle's gasoline per mile consumption should also be measured over at least 150 miles. The recommended test route is on the old highway southwest of Las Vegas parallel to I-15.

After installation of a cell, the vehicle's emission should be measured again at the same smog station. The vehicle is driven again over the exact same route as before using the same gasoline fueling pump. The estimated cost of vehicle and test drives is \$5,000.

According to <http://www.moe-joe-working.com/Moe-Joe-Cell/Moe-Joe-Cell-Store/moe-joe-cell-store.html>, the cost of a Moe-Joe orgone energy cell with one set of spacers, one bismuth core, one aluminum hose connector, and one 1-meter transfer hose with spring totals \$348. Assume an estimated additional shipping cost of \$10. A mechanic experienced with installing Moe-Joe orgone energy cells could likely install a cell in most cars and trucks in approximately one hour.

The estimated cost of purchasing and installing one Moe-Joe orgone energy cell in a demonstration vehicle, including mechanic training, is \$600.

Gary Vesperman has an electrical contraption for specially charging and filtering the water with which to fill a Moe-Joe orgone energy cell. Electrically charging spring water bottled by Aquafina results in brown scum floating on top of the water which has to be filtered several times before a clear liquid similar in color to urine is obtained. It currently takes a couple of hours to charge and filter enough water to fill a one-quart bottle.

He is willing to make and sell one-quart bottles of special water for \$50 each. Hopefully production efficiencies can be improved such as experimenting with charging and filtering distilled water rather than bottled spring water.

Once a demonstration vehicle's performance with and without the Moe-Joe orgone energy cell has been certified, it is suggested that the vehicle be displayed at the numerous car shows that are held in the Las Vegas area. Orders could be taken at these shows for Moe-Joe orgone energy cells to be installed *only* on pre-computer cars and trucks.

It is anticipated that the owners will be so pleased with the enhanced performance of their orgone energy-powered pre-computer cars and trucks that they will place informal requests for Moe-Joe orgone energy cells to be installed in their more modern computerized cars and trucks. Favorable market demand would encourage the expensive development of an electronic circuit for making the cells compatible with engine computers.

Development and validation of a commercial-grade circuit with appropriate packaging and instructions is conservatively estimated to cost tens of thousands of dollars.

Arrangements with an automotive repair shop to install Moe-Joe orgone energy cell could be made. Or, a mechanic could be hired and equipped to do nothing but install and service Moe-Joe orgone energy cells. Standalone gasoline or diesel-fueled electricity generators don't seem to have computers. It seems reasonable to anticipate a large market (farms, e.g.) for orgone energy-fueled generators. Standalone non-computerized diesel and gasoline-fueled electricity generators would consume much less fuel with a Moe-Joe orgone energy cell.

Wed, December 22, 2010 9:57:55 AM

Fwd: Store of David House Productions - Product enquiry for Product Name: Moe-Joe Cell Car Kit

From: T. Hathaway <411moreinfo@gmail.com>

To: Gary Vesperman <garyvesperman@yahoo.com>

Gary,

FYI – sounds like the Bedini units that are for sale...80% completed, and you must have expertise to knock out the other 20%.

Is there ANYTHING overunity that can be demo'd in D.C. or at our dome home in rural VA via live Internet feed? We're working with inventors to see who wants to be the first across the finish line, but so far only one taker, and that unit is about a month away from pickup. Plus it will probably take a month to setup. So the 4th

Int'l Conference on Future Energy is likely the first event where an overunity tech will be demo'd by someone other than the inventor. Bedini demoing his large ferris wheel unit last month was an excellent start, but nothing is available FOR PURCHASE BY THE PUBLIC that's overunity in terms of power input to power output, to my knowledge, that can run in all conditions without concern of batteries going dead, sun not shining, wind not blowing, etc...correct me if I'm wrong about nothing being available, as I've been out of the whole advanced energy loop for several months until last month, when there was no physical manifestation of the mid-November tipping point. At some point, one of these inventors has to just decide to trust others. If you can arrange a 24/7 live demo of an adv energy tech with full public access, that works. I don't have to be involved, so long as these techs make it out to the public.

Todd

From: **Moshe Daniel** <moshedaniel9@gmail.com>

Date: Wed, Dec 22, 2010 at 12:50 PM

Subject: Re: Store of David House Productions - Product enquiry for Product Name: Moe-Joe Cell Car Kit

To: Todd Hathaway <411moreinfo@gmail.com>

Hi there Todd,

Thank you for your inquiry.

I checked our database and we have not yet sold any moe-joe cells to Washington DC.

The moe-joe cell is still really in the beta phase, and it is experimenters, like you, who help gather field data that helps progress.

It is in the experimental phase, in other words. If you're adventurous, and would like to be a part of this, we will happily offer you some good Moe-Joe steel and accessories and support to have you hook it up into your Priuses.

Moshe Daniel

On Wed, Dec 22, 2010 at 9:13 AM, Todd Hathaway <411moreinfo@gmail.com> wrote:

Store of David House Productions

Todd Hathaway has requested more information on Moe-Joe Cell Car Kit (Product-SKU: mjc-carkit)

This is the new and improved design of the Moe-Joe Cell, and the steel is totally non-magnetic. It fits perfectly together for a solid and durable cell. It is the same as the water charging kit except the bottom "female" 5" does not contain holes for water.

On Tue, Dec 21, 2010 at 12:31 AM, Gary Vesperman <garyvesperman@yahoo.com> wrote:

Todd,

Some of the people who wrote in http://peswiki.com/index.php/OS:Moe-Joe_Cell:Feedback got poor results with the Moe-Joe cell. Reasons I can think of:

- The O₂ sensor signal wasn't modified to fool the car's computer. Otherwise, the computer senses a fuel-air mixture that is too lean. Thus more fuel is injected.
- The cell's water was either improperly charged or not electrically charged at all.
- Improper installation.

I recommend you buy a pre-computer era car in decent shape.

I suggest you then install a Moe-Joe cell from Moshe Daniel.

Gary Vesperman

----- Forwarded Message -----

From: Gary Vesperman <garyvesperman@yahoo.com>

To: NEC-TechRev@yahoogroups.com

Cc: Michael Education <rivedu@earthlink.net>

Sent: Fri, October 29, 2010 8:36:51 PM

Subject: Moe-Joe spherical orgone energy accumulator

Ian,

Have you and your students ever experimented with a Moe-Joe spherical orgone energy accumulator?

It comprises of a nest of four concentric thin spherical stainless steel shells – 5, 4, 3, and 2 inches in diameter. It's filled with specially charged water. Holes allow the special water to circulate between the shells. The Moe-Joe cell does not generate hydrogen nor Brown's gas. Electrodes at the south and north poles are wired to the battery's positive post or engine ground.

The ball accumulates orgone energy. The dishwasher tubing between the ball's outlet pipe at about 30 degrees off its north pole and the PCV valve then conducts the ball's excess orgone energy into the engine through the PCV valve.

No one is sure just what then happens inside the cylinders. It is known that the temperature drops, and implosion rather than explosion occurs – necessitating a drastic change in the engine's timing.

In my compilation of "Advanced Technologies for Foreign Resorts", search for Joe cell. You will see a lengthy explanation of Joe cell theory. Links include <http://www.icestuff.com/~energy21/advantech.htm> and <http://www.linux-host.org/energy/advantech.htm>.

My compilation of energy invention suppression cases (see www.padrak.com/vesperman and energysuppression.com, for example) includes the story of Joe's suppression troubles.

About five years ago we bought and installed a Moe-Joe orgone energy ball in our 1993 Saturn with some dishwasher tubing from a hardware store. Tony Schwartz's Cell Guardian was also installed to fool the O₂ sensor. With Tony's advice we built our own water charging device.

We then very carefully established a baseline of 30 MPG using the old highway along I-15 from Las Vegas south to Jean and also I-15 itself. After refilling the tank at the same pump and driving the same route in the same manner, we then turned on the ball. It truly excited us at the pump when we found that the Saturn's mileage increased to approximately 47 MPG!!!! The other people at the gas station must have wondered what was happening to two grown men jumping around and high-fiving each other.

The Saturn's mileage became so high that to accurately make more measurements we found ourselves taking long trips, even one uphill from Las Vegas 200 miles to Tonopah which got us nearly 50 MPG.

A car computer is typically programmed to increase fuel when its O₂ sensor senses the fuel mixture becoming too lean.

The Cell Guardian we bought from Tony Schwartz is supposed to change the O₂ sensor signal and fool the engine computer. We and others don't recommend the Cell Guardian. Its electronics needs to be completely redesigned and rebuilt from scratch.

Ideally an old pre-computer car would work the best with a ball.

When we put a second ball into a 1968 Dodge Charger, the idle speed dropped to a very low level – maybe 50 RPM? – so slow that apparently no ordinary gasoline engine on the planet can run that slow. A strange fog that is not steam sometimes pours out of the oil intake pipe, exhaust pipe, carburetor, etc. Carbon buildup inside the engine is cleaned out. I know because I happened to be standing behind the Charger when my friend hit the throttle while working under the hood. There was soot blasted all over my pants! Yet the Charger drives like it has a 500-horsepower engine.

We have thought of installing a ball on a diesel generator. We suspect that a diesel generator would almost not need diesel fuel with a ball. It wouldn't have a computer that would need to be fooled like a modern car.

We found the Moe-Joe cell to be a genuinely weird energy invention. When we first assembled a ball on a coffee table, without water, we discovered that sometimes we would feel drastic changes in its apparent heaviness. We would set it on the coffee table and walk away for a few minutes. When we picked up the ball again, if it felt lightweight before, it would then feel much heavier, or the reverse.

The Joe cell literature does include references to anti-gravity. The aforementioned otherwise heavy Charger drove and rode with a suspicious feeling that somehow some anti-gravity had taken over. When I rode it as a passenger on a 35 MPH street, it felt like it was going over 50 MPH even though it was being driven at the speed limit of 35 MPH. In the aforementioned Saturn as a passenger the car had an obviously different ride when we knew the ball was working.

I can't remember any specific instances as it has been over three years since we experimented with our balls. On more than one occasion we thought we noticed some indication of consciousness besides changing weight at the coffee table.

BTW, a ball needs to be topped off with only maybe a cup of specially charged water about twice a month. The charged water itself does NOT enter the engine. It's the orgone energy that powers the engine. The engine becomes so much more powerful that the car seems to be flying.

A lack of resources stopped us from going commercial with the Moe-Joe cell. In its present configuration we found the ball not to be a consumer-friendly device. It especially needs some electronics with which to fool the engine computer by modifying the O₂ sensor signal. We frequently found ourselves disconnecting and reconnecting the battery so as to restart the ball's orgone energy accumulator action by resetting the engine computer.

For more on orgone energy which is what powers the ball, buy James DeMeo's book Orgone Energy Accumulator. Its front cover photo of an astronaut on the moon with a blue halo around his spacesuit is what I use for my Blue Energy Corporation business card. Pretty cool business card.

Inertia-Less Craft and Artificial Gravity

Gordon Ziegler's electrino fusion power reactor is described in "130 Electrical Energy Innovations" at www.padrak.com/vesperman. The article states:

electrino energy was formed October 12, 2005 as an invention development and theorist service specializing in four high-technology inventions – inertia-less craft; artificial gravities; reverser of aging, disease, and decay processes; and electrino fusion reactors generating electricity.

Chapter 5, Gravity and Inertia, from *Formulating the Universe*, Volume II, by Gordon Ziegler is available at www.padrak.com/vesperman. Copyrighted by Benevolent Enterprises 2004. Used with permission.

Can the Vacuum be Engineered for Spaceflight Applications?

(The following, recommended to Gary Vesperman by Jerry Decker, was copied from <http://www.keelynet.com/gravity/putnasa.htm>.)

Overview of Theory and Experiments

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From: [Puthoff@aol.com](mailto:puthoff@aol.com)

Date: Mon, 18 Aug 1997 16:21:16 -0400 (EDT)

To: vortex-1@eskimo.com

Subject: Re: NASA posts the results of propulsion conference

For those interested, here is a copy of the paper I presented at the NASA Breakthrough Propulsion Physics conference at Lewis Research Center last week. - Hal Puthoff

Abstract

Quantum theory predicts, and experiments verify, that empty space (the vacuum) contains an enormous residual background energy known as zero-point energy (ZPE).

Originally thought to be of significance only for such esoteric concerns as small perturbations to atomic emission processes, it is now known to play a role in large-scale phenomena of interest to technologists as well, such as the inhibition of spontaneous emission, the generation of short-range attractive forces (e.g., the Casimir force), and the possibility of accounting for sonoluminescence phenomena.

ZPE topics of interest for spaceflight applications range from fundamental issues (where does inertia come from, can it be controlled?), through laboratory attempts to extract useful energy from vacuum fluctuations (can the ZPE be 'mined' for practical use?), to scientifically-grounded extrapolations concerning 'engineering the vacuum' (is 'warp-drive' space propulsion a scientific possibility?). Recent advances in research into the physics of the underlying ZPE indicate the possibility of potential application in all these areas of interest.

Introduction

The concept 'engineering the vacuum' was first introduced by Nobel Laureate T. D. Lee in his book *Particle Physics and Introduction to Field Theory*. As stated there: "The experimental method to alter the properties of the vacuum may be called vacuum engineering.... If indeed we are able to alter the vacuum, then we may encounter some new phenomena, totally unexpected." Recent experiments have indeed shown this to be the case.

With regard to space propulsion, the question of engineering the vacuum can be put succinctly: "Can empty space itself provide the solution?"

Surprisingly enough, there are hints that potential help may in fact emerge quite literally out of the vacuum of so-called 'empty space.' Quantum theory tells us that empty space is not truly empty, but rather is the seat of myriad energetic quantum processes that could have profound implications for future space travel. To understand these implications it will serve us to review briefly the historical development of the scientific view of what constitutes empty space.

At the time of the Greek philosophers, Democritus argued that empty space was truly a void, otherwise there would not be room for the motion of atoms.

Aristotle, on the other hand, argued equally forcefully that what appeared to be empty space was in fact a plenum (a background filled with substance), for did not heat and light travel from place to place as if carried by some kind of medium?

The argument went back and forth through the centuries until finally codified by Maxwell's theory of the luminiferous ether, a plenum that carried electromagnetic waves, including light, much as water carries waves across its surface. Attempts to measure the properties of this ether, or to measure the Earth's velocity through the ether (as in the Michelson-Morley experiment), however, met with failure.

With the rise of special relativity which did not require reference to such an underlying substrate, Einstein in 1905 effectively banished the ether in favor of the concept that empty space constitutes a true void. Ten years later, however, Einstein's own development of the general theory of relativity with its concept of curved space and distorted geometry forced him to reverse his stand and opt for a richly-endowed plenum, under the new label spacetime metric.

It was the advent of modern quantum theory, however, that established the quantum vacuum, so-called empty space, as a very active place, with particles arising and disappearing, a virtual plasma, and fields continuously fluctuating about their zero baseline values. The energy associated with such processes is called zero-point energy (ZPE), reflecting the fact that such activity remains even at absolute zero.

The vacuum as a potential energy source

At its most fundamental level, we now recognize that the quantum vacuum is an enormous reservoir of untapped energy, with energy densities conservatively estimated by Feynman and others to be on the order of nuclear energy densities or greater. Therefore, the question is, can the ZPE be 'mined' for practical use? If so, it would constitute a virtually ubiquitous energy supply, a veritable 'Holy Grail' energy source for space propulsion.

As utopian as such a possibility may seem, physicist Robert Forward at Hughes Research Laboratories demonstrated proof-of-principle in a paper published in 1984, "Extracting Electrical Energy from the Vacuum by Cohesion of Charged Foliated Conductors."

Forward's approach exploited a phenomenon called the 'Casimir effect', an attractive quantum force between closely-spaced metal plates, named for its discoverer, H. G. B. Casimir of Philips Laboratories in the Netherlands.

The Casimir force, recently measured with high accuracy by S. K. Lamoreaux at the University of Washington, derives from partial shielding of the interior region of the plates from the background zero-point fluctuations of the vacuum electromagnetic field.

As shown by Los Alamos theorist Milonni and his colleagues, this shielding results in the plates being pushed together by the unbalanced ZPE radiation pressures. The result is a corollary conversion of vacuum energy to some other form such as heat.

Proof that such a process violates neither energy nor thermodynamic constraints can be found in a paper by D. Cole and myself published in 1993 under the title "Extracting Energy and Heat from the Vacuum."

Attempts to harness the Casimir and related effects for vacuum energy conversion are ongoing in our laboratory and elsewhere. The fact that its potential application to space propulsion has not gone unnoticed by the Air Force can be seen in its request for proposals for the FY-1986 Defense SBIR Program.

Under entry AF86-77, Air Force Rocket Propulsion Laboratory (AFRPL) Topic: Non-Conventional Propulsion Concepts we find the statement: "Bold, new non-conventional propulsion concepts are solicited... The specific areas in which AFRPL is interested include.... (6) Esoteric energy sources for propulsion including the zero point quantum dynamic energy of vacuum space."

Several experimental formats for tapping the ZPE for practical use are under investigation in our laboratory. An early one of interest is based on the idea of a Casimir pinch effect in non-neutral plasmas, basically a plasma equivalent of Forward's electromechanical charged-plate collapse (see Puthoff, 1990). The underlying physics is described in a paper submitted for publication by myself and M. Piestrup, and it is illustrative that the first of several patents issued to a consultant to our laboratory, K.R. Shoulders, contains the descriptive phrase "... energy is provided... and the ultimate source of this energy appears to be the zero-point radiation of the vacuum continuum."

Another intriguing possibility is provided by the phenomenon of sonoluminescence, bubble collapse in an ultrasonically-driven fluid which is accompanied by intense, sub-nanosecond light radiation. Although the jury is still out as to the mechanism of light generation, Nobelist Julian Schwinger has argued for a Casimir interpretation. Possibly related experimental evidence for excess heat generation in ultrasonically-driven cavitation in heavy water is claimed in an EPRI Report by George and Stringham of E-Quest Sciences, although attributed to a nuclear micro- fusion process. Work is under way in our laboratory to see if this claim can be replicated.

Yet another proposal for ZPE extraction is described in a patent issued to Mead and Nachamkin. The approach proposes the use of resonant dielectric spheres, slightly detuned from each other, to provide a beat-frequency downshift of the more energetic high-frequency components of the ZPE to a more easily captured form. We are discussing the possibility of a collaborative effort between us to determine whether such an approach is feasible. (Author's note: This is the same as one of the nineteen candidate electricity generators for satellites and spacecraft listed below.)

Finally, an approach utilizing micro-cavity techniques to perturb the ground state stability of atomic hydrogen is under consideration in our lab. It is based on a 1987 paper of mine in which I put forth the hypothesis that the nonradiative nature of the ground state is due to a dynamic equilibrium in which radiation emitted due to accelerated electron ground state motion is compensated by absorption from the ZPE.

If this hypothesis is true, there exists the potential for energy generation by the application of the techniques of so-called cavity quantum electrodynamics QED. In cavity QED, excited atoms are passed through Casimir-like cavities whose structure suppresses electromagnetic cavity modes at the transition frequency between the atom's excited and ground states.

The result is that the so-called 'spontaneous' emission time is lengthened considerably (for example, by factors of ten), simply because spontaneous emission is not so spontaneous after all, but rather is driven by vacuum fluctuations. Eliminate the modes, and you eliminate the zero-point fluctuations of the modes, hence suppressing decay of the excited state.

As stated in an April 1993 Scientific American review article on cavity QED, "An excited atom that would ordinarily emit a low-frequency photon cannot do so, because there are no vacuum fluctuations to stimulate its emission...."

In its application to energy generation, mode suppression would be used to perturb the hypothesized dynamic ground-state absorption/emission balance to lead to energy release (patent pending).

An example in which Nature herself may have taken advantage of energetic vacuum effects is discussed in a model published by ZPE colleagues A. Rueda of California State University at Long Beach, B. Haisch of Lockheed-Martin, and D. Cole of IBM. In a paper published in the Astrophysical Journal in 1995, they propose that the vast reaches of outer space constitute an ideal environment for ZPE acceleration of nuclei and thus provide a mechanism for 'powering up' cosmic rays. Details of the model would appear to account for other observed phenomena as well, such as the formation of cosmic voids.

This raises the possibility of utilizing a 'sub-cosmic-ray' approach to accelerate protons in a cryogenically-cooled, collision-free vacuum trap and thus extract energy from the vacuum fluctuations by this mechanism.

The vacuum as the source of gravity and inertia

What of the fundamental forces of gravity and inertia that we seek to overcome in space travel? We have phenomenological theories that describe their effects (Newton's Laws and their relativistic generalizations), but what of their origins?

The first hint that these phenomena might themselves be traceable to roots in the underlying fluctuations of the vacuum came in a 1967 study published by the well-known Russian physicist Andrei Sakharov.

Searching to derive Einstein's phenomenological equations for general relativity from a more fundamental set of assumptions, Sakharov came to the conclusion that the entire panoply of general relativistic phenomena could be seen as induced effects brought about by changes in the quantum-fluctuation energy of the vacuum due to the presence of matter.

In this view the attractive gravitational force is more akin to the induced Casimir force discussed above, than to the fundamental inverse square law force between charged particles with which it is often compared. Although speculative when first introduced by Sakharov, this hypothesis has led to a rich and ongoing literature (including a contribution of my own in 1989) on quantum-fluctuation-induced gravity, a literature that continues to yield deep insight into the role played by vacuum forces.

Given an apparent deep connection between gravity and the zero-point fluctuations of the vacuum, a similar connection must exist between these self-same vacuum fluctuations and inertia. This is because it is an empirical fact that the gravitational and inertial masses have the same value, even though the underlying phenomena are quite disparate.

Why, for example, should a measure of the resistance of a body to being accelerated, even if far from any gravitational field, have the same value that is associated with the gravitational attraction between bodies? Indeed, if one is determined by vacuum fluctuations, so must the other.

To get to the heart of inertia, consider a specific example in which you are standing on a train in the station. As the train leaves the platform with a jolt, you could be thrown to the floor. What is this force that knocks you down, seemingly coming out of nowhere?

This phenomenon, which we conveniently label inertia and go on about our physics, is a subtle feature of the Universe that has perplexed generations of physicists from Newton to Einstein. Since in this example the sudden disquieting imbalance results from acceleration 'relative to the fixed stars,' in its most provocative form one could say that it was the 'stars' that delivered the punch. This key feature was emphasized by the Austrian philosopher of science Ernst Mach, and is now known as Mach's Principle.

Nonetheless, the mechanism by which the stars might do this deed has eluded convincing explication. Addressing this issue in a 1994 paper entitled "Inertia as a Zero-Point Field Lorentz Force," Haisch, Rueda and I were successful in tracing the problem of inertia and its connection to Mach's Principle to the ZPE properties of the vacuum.

In a sentence, although a uniformly moving body does not experience a drag force from the (Lorentz-invariant) vacuum fluctuations, an accelerated body meets a resistance (force) proportional to the acceleration.

By accelerated we mean, of course, accelerated relative to the fixed stars. It turns out that an argument can be made that the quantum fluctuations of distant matter structure the local vacuum-fluctuation frame of reference (see Puthoff, "Source...", 1989). Thus, in the example of the train the punch was delivered by the wall of vacuum fluctuations acting as a proxy for the fixed stars through which one attempted to accelerate.

The implication for space travel is this: Given the evidence generated in the field of cavity QED (discussed above), there is experimental evidence that vacuum fluctuations can be altered by technological means. This leads to the corollary that, in principle, gravitational and inertial masses can also be altered.

The possibility of altering mass with a view to easing the energy burden of future spaceships has been seriously considered by the Advanced Concepts Office of the Propulsion Directorate of the Phillips Laboratory at Edwards Air Force Base. Gravity researcher Robert Forward accepted an assignment to review this concept. His deliverable product was to recommend a broad, multi-pronged effort involving laboratories from around the world to investigate the inertia model experimentally.

After a one-year investigation Forward finished his study and submitted his report to the Air Force, who published it under the title Mass Modification Experiment Definition Study. The Abstract reads in part:

".... Many researchers see the vacuum as a central ingredient of 21st- Century physics. Some even believe the vacuum may be harnessed to provide a limitless supply of energy. This report summarizes an attempt to find an experiment that would test the Haisch, Rueda and Puthoff (HRP) conjecture that the mass and inertia of a body are induced effects brought about by changes in the quantum-fluctuation energy of the vacuum.... It was possible to find an experiment that might be able to prove or disprove that the inertial mass of a body can be altered by making changes in the vacuum surrounding the body."

With regard to action items, Forward in fact recommends a ranked list of not one but four experiments to be carried out to address the ZPF-inertia concept and its broad implications. The recommendations included investigation of the proposed 'sub-cosmic-ray energy device' mentioned earlier, and the investigation of an hypothesized 'inertia-wind' effect proposed by our laboratory and possibly detected in early experimental work by Forward and Miller, though the latter possibility is highly speculative at this point.

Engineering the vacuum for 'warp drive'

Perhaps one of the most speculative, but nonetheless scientifically grounded, proposals of all is the so-called Alcubierre Warp Drive. Taking on the challenge of determining whether Warp Drive a la Star Trek was a scientific possibility, general relativity theorist Miguel Alcubierre of the University of Wales set himself the task of determining whether faster-than-light travel was possible within the constraints of standard theory.

Although such clearly could not be the case in the flat space of special relativity, general relativity permits consideration of altered spacetime metrics where such a possibility is not a priori ruled out.

Alcubierre's further self-imposed constraints on an acceptable solution included the requirements that no net time distortion should occur (breakfast on Earth, lunch on Alpha Centauri, and home for dinner with your wife and children, not your great-great-great grandchildren), and that the occupants of the spaceship were not to be flattened against the bulkhead by unconscionable accelerations.

A solution meeting all of the above requirements was found and published by Alcubierre in *Classical and Quantum Gravity* in 1994. The solution discovered by Alcubierre involved the creation of a local distortion of spacetime such that spacetime is expanded behind the spaceship, contracted ahead of it, and yields a hypersurfer-like motion faster than the speed of light as seen by observers outside the disturbed region. In essence, on the outgoing leg of its journey the spaceship is pushed away from Earth and pulled towards its distant destination by the engineered local expansion of spacetime itself.

(For follow-up on the broader aspects of 'metric engineering' concepts, one can refer to a paper published by myself in *Physics Essays* in 1996.)

Interestingly enough, the engineering requirements rely on the generation of macroscopic, negative-energy-density, Casimir-like states in the quantum vacuum of the type discussed earlier. Unfortunately, meeting such requirements is beyond technological reach without some unforeseen breakthrough, as emphasized by Pfenning and Ford in a recently submitted manuscript.

Related, of course, is the knowledge that general relativity permits the possibility of wormholes, topological tunnels which in principle could connect distant parts of the Universe, a cosmic subway so to speak. Publishing in the *American Journal of Physics* in 1988, theorists Morris and Thorne initially outlined in some detail the requirements for traversible wormholes and have found that, in principle, the possibility exists provided one has access to Casimir-like, negative-energy-density quantum vacuum states. This has led to a rich literature, summarized recently in a 1996 book by Matt Visser of Washington University, St. Louis.

Again, the technological requirements appear out of reach for the foreseeable future, perhaps awaiting new techniques for cohering the ZPE vacuum fluctuations in order to meet the energy-density requirements.

Conclusions

We began this discussion with the question: "Can the vacuum be engineered for spaceflight applications?" The answer is: "In principle, yes." However, engineering-wise it is clear that there is a long way to go. Given the cliché "a journey of 1000 miles begins with the first steps", it is also clear that we can take those first steps now in the laboratory.

Given that Casimir and related effects indicate the possibility of tapping the enormous residual energy in the vacuum-fluctuation ZPE, and the demonstration in cavity QED that portions of the ZPE spectrum can be manipulated to produce macroscopic technological effects such as the inhibition of spontaneous emission of excited states in quantum systems, it would appear that the first steps along this path are visible.

This, combined with newly-emerging concepts of the relationship of gravity, inertia and warp drive to properties of the vacuum as a manipulable medium, indicate yet further reaches of possible technological development, although requiring yet unforeseen breakthroughs with regard to the possibility of engineering vacuum fluctuations to produce desired results.

Where does this leave us? As we peer into the heavens from the depth of our gravity well, hoping for some 'magic' solution that will launch our spacefarers first to the planets and then to the stars, we are reminded of Arthur C. Clarke's phrase that highly advanced technology is essentially indistinguishable from magic. Fortunately, such magic appears to be waiting in the wings of our deepening understanding of the quantum vacuum in which we live.

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Warp Drive Engine Would Travel Faster than Light

(The following, recommended to Gary Vesperman by Jerry Decker, was copied from <http://news.discovery.com/space/private-spaceflight/warp-drive-spaceship-engine.htm>.)

It is possible to travel faster than light. You just wouldn't travel faster than light.

Seems strange, but by manipulating extra dimensions with astronomical amounts of energy, two Baylor University physicists have outlined how a faster-than-light engine, or warp drive, could be created that would bend but not break the laws of physics.

"We think we can create an effective warp drive, based on general relativity and string theory," said Gerald Cleaver, coauthor of the paper that recently appeared on the preprint server ArXiv.org

The warp engine is based on a design first proposed in 1994 by Michael Alcubierre. The Alcubierre drive, as it is known, involves expanding the fabric of space behind a ship into a bubble and shrinking space-time in front of the ship. The ship would rest in between the expanding and shrinking space-time, essentially surfing down the side of the bubble.

The tricky part is that the ship wouldn't actually move; space itself would move underneath the stationary spacecraft. A beam of light next to the ship would still zoom away, same as it always does, but a beam of light far from the ship would be left behind.

That means that the ship would arrive at its destination faster than a beam of light traveling the same distance, but without violating Einstein's relativity, which says that it would take an infinite amount of energy to accelerate an object with mass to the speed of light, since the ship itself isn't actually moving.

The fabric of space has moved faster than light before, says Cleaver, right after the Big Bang, when the Universe expanded faster than the speed of light.

"We're recreating the inflationary period of the Universe behind the ship," said Cleaver.

While the theory rests on relatively firm ground, the next question is how do you expand space behind the ship and contract it in front of the ship?

Cleaver and Richard Obousy, the other coauthor, propose manipulating the 11th dimension, a special theoretical construct of M-theory (the offspring of string theory), to create the bubble the ship would surf down.

If the 11th dimension could be shrunk behind the ship it would create a bubble of dark energy, the same dark energy that is causing the Universe to speed up as time goes on. Expanding the 11th dimension in front of the ship would eventually cause it to decrease, although two separate steps are required.

Exactly how the 11th dimension would be expanded and shrunk is still unknown.

"These calculations are based on some arbitrary advance in technology or some alien technology that would let us manipulate the extra dimension," said Cleaver.

What the scientists were able to estimate was the amount of energy necessary, if the technology was available, to change these dimensions: about 10^{45} joules.

"That's about the amount of energy you'd get if you converted the entire mass of Jupiter into pure energy via $E = mc^2$," said Cleaver – an energy far beyond anything humanity can currently envision creating.

While the challenges to creating a warp drive are quite formidable, the concept is intriguing, says Tufts University theoretical physicist Lawrence Ford.

"If there are extra dimensions and we could manipulate them, then that would open up all sorts of exciting possibilities," said Ford.

"I don't see this leading immediately to a warp drive, but I could see it leading to other interesting possibilities in basic scientific research," said Ford.

Cleaver agrees that the creation of a real warp drive is still far away.

"Warp drive isn't doable now, and probably won't be for the next several millennia," said Cleaver.

For more discussions of warp drives Jerry Decker suggested:

NASA Warp Drive Project video in <http://www.youtube.com/watch?v=jRn4WpoNAyo&>.

<http://www.keelynet.com/news/112112e.html>

<http://www.dailymail.co.uk/sciencetech/article-2234397/Bad-news-Scotty-Star-Trek-style-warp-drive-systems-turn-spacecraft-Death-Stars-destroy-planets-arrival.html>

<http://www.keelynet.com/energy/engzpf.pdf?>

<http://www.textfiles.com/bbs/KEELYNET/GRAVITY/warpsurf.asc?>

Jerry Decker also recommended the transcript of an interview with astronaut Brian O'Leary at http://www.bibliotecapleyades.net/ciencia/ciencia_energy05.htm. O'Leary talked about the American space program, space colonies, zero-point vacuum energy field, psychic phenomena, suppression of energy inventions (even mentions Gary Vesperman's accumulation of "many, many suppression stories" – see www.padrak.com/vesperman), etc.

Anti-Gravity Ether Shield

(This report is an excerpt from Gary Vesperman's notes on the International Symposium on New Energy that was held in the Denver Hilton South, Denver, CO April 25 - 28, 1996. Gary Vesperman had attended German professor Adolph Zielinski's lecture.)

Adolph Zielinski works for a German instrument manufacturing company. About 30 years ago, he and his colleagues developed a new device for measuring the flow of liquid through a pipe. Inexplicably, the device generated far more energy than was explainable by conventional physics. They spent more than 20 years scratching their heads trying to figure out where the excess energy was coming from.

Zielinski had a viewgraph of a circle, representing planet Earth, with arrows coming to the surface all around the circle. The arrows represent the earth's gravitational pull.

Zielinski explained that the problem with the famous Michelson-Morley experiment measuring the speed of light was that the interferometers used in the experiment were mistakenly set up in the horizontal plane. So therefore, the speed of light was measured to be constant. If the interferometers had been set up in the vertical position, the speed of light would have decreased going up-hill, and increased going down-hill. The false reading that the speed of light is constant greatly influenced Einstein's theory of relativity, which is now thought by etheric energy researchers to be incorrect.

Zielinski disclosed for the first time in the United States that his company has now developed and *is already shipping to other German companies* an anti-gravity ether shield. Members of the audience tried to ask questions which would indicate how it works. Zielinski said he was specifically instructed by his company not to drink any hard liquor. He was able to say, however, that the ether shield operates at very high voltage.

Imagine a block of iron hanging from a ceiling. If an ether shield is placed on the left side of the iron block, the ether shield would deflect the ether flowing into left side of the iron block. This creates a sort of force vacuum, and the iron block would swing up to the ceiling trying to fill the vacuum.

Ether shield segments can be placed around the nose cone of a rocket for forward propulsion. Ether shield segments can also be placed all around the sides of a circular vehicle mounted on wheels. Now the vehicle moves in the direction of turned-on ether shield segments.

If additional ether shield segments are placed under the circular vehicle and on top of a curved roof, and there are windows between the body of the vehicle and the curved roof, the resemblance to the popular conception of a flying saucer is startling.

Zielinski has studied the vadic religious philosophy which comes from India. There are supposed to be 12 planes of existence, of which the world we live in comprises of the bottom level. If we behave ourselves, evidently after death we would be promoted to the next higher level. The top three levels consist of a permanent source of ether energy.

He said he was to meet the next day with an ether researcher from Venezuela. This man has grown tomatoes the size of melons, and has developed an ether telescope without glass lens. I saw Hal Fox meeting with this man and Zielinski. I anticipate some kind of article on them in Fox's magazine.

<http://newenergytimes.com/v2/archives/fic/all.shtml>
<http://newenergytimes.com/v2/archives/fic/F/F199604.PDF>
<http://newenergytimes.com/v2/archives/fic/F/F199605.PDF>

Ether Telescope

In the above report from Adolph Zielinski he was to meet an ether researcher from Venezuela. This man has grown tomatoes the size of melons, and has developed an ether telescope without glass lens. However, an Internet search for "ether telescope" turned up nothing useful.

Domestic Lens

The Domestic Lens™ is a large, lightweight, thin and inexpensive lens for the optical industry. Immediate applications could be large-diameter lenses to be used in telescopes, photographic, viewing and other applications at a fraction of the cost of large diameter lenses. The abrasion resistant Domestic Lens™ would be as much as 50 times lighter than traditional lenses. They would be of higher resolution than Fresnel lens. An inexpensive proprietary manufacturing technique allows manufacturing in most focal lengths in a very short time for large observatory telescopes. Telescopic focal lengths can be adjustable to some extent. The inventor is Abby Charden Mobasher.

Meta-Stable Helium as Rocket Propellant

Physicist Dr. Robert Bass claims his formulation of meta-stable helium will be the ideal rocket propellant for expanding human civilization into the solar system (e.g. to colonize Mars). When a micro-crystal of meta-stable helium is triggered by the right frequency of laser light, it will return to the form of gas as if it had been compressed by tens of millions of atmospheres of pressure. It will release 43 times more energy per unit weight than any conceivable chemical combination. With meta-stable helium as fuel, a rocket could take a 50-percent payload to Mars and back in two weeks. (Accelerate there and return at one gee.)

(Text of November 24, 2013 email to Gary Vesperman and others from Dr. Bass)

Here **below** is the URL [on the Engineering sub-site of my website www.innoventek.com] of my presentation on meta-stable helium at the Nanotech Revolution Conference, at which I first met Dr. Tony Tether, the Director of DARPA, which led to my receiving a 3-phase Project from DARPA to prove the feasibility of converting gases like helium or hydrogen to Liquid Metallic Plasmoids (LMPs) which can be levitated magnetically in a vacuum and allowed to cool off by radiation, which will cause them to crystallize into Metastable Materials, including those of High Energy Density Materials (**HEDM**) which in an interview with the *AIAA Journal* on the 50th Anniversary of DARPA, Dr. Tether called "the Holy Grail for DARPA!"

The only reason that we did not proceed to Phase 1b, after the successful completion of Phase 1a, and selection of the UTA's hypersonics Lab ARC for Phase 1b under Prof. Frank Lu, is that Pres. Obama replaced Dr. Tether by some dame who was mainly interested in cryptography and wouldn't give me the time of day, plus the tragic fact that a well-meaning newbie told us that for Phase 1b we needed to include as co-workers a **score** of government and academic groups famed for plasma simulation programs, without realizing that their ultra-high temperature plasmas, relevant to thermonuclear fusion R&D, were utterly irrelevant to our relatively low-temperature LMPs.

Robert W. Bass, "Nanoscale Engineering of Crystalline MetaStable Elements," Nanotechnology Revolution Conference, February 24, 2006

http://www.innoventek.com/MetaStableHeliumAndHydrogenCrystals_NanotechRevln06.pdf

And here is my Final Report on Phase 1a:

R.W. Bass, "Final Report To DARPA Re Metamatter Feasibility Via Precursor Liquid Metallic Plasmoids (LMPs)"

http://www.innoventek.com/FinalReportTo_DARPA_ReMetamatterFeasibilityViaPrecursorLMPs.pdf

Ground Transportation for Colonies on Mars and Earth's Moon

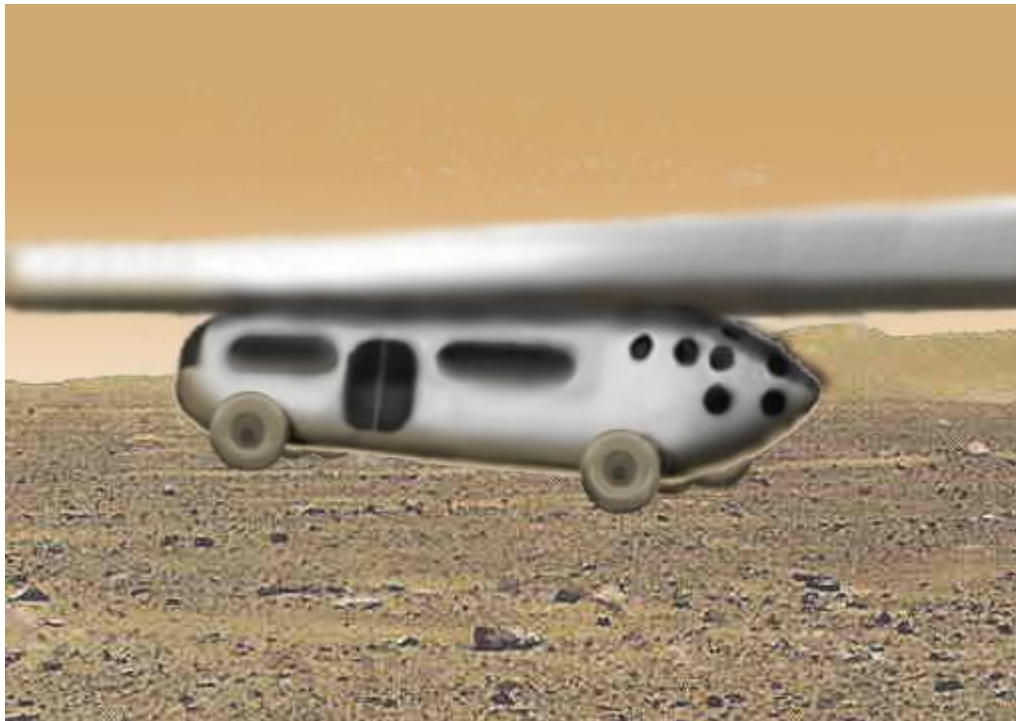
The following is Sky Train Corporation's discussion of ground transportation for colonies on Mars and Earth's Moon at <http://db.tt/3zchc0Su>. Gary Vesperman is an Advisor to Sky Train Corporation.

Sky Train Corporation has designed a simple and robust transportation system for long-range surface moon-Mars mobility for human explorers.

First, why is ground transportation needed? The Moon's gravity at 17% of the Earth's gravity alters the needs and behavior as elaborated in the following. There are expected to be at least three connected facilities – the living quarters or city of the inhabitants, the power plant area (probably nuclear?), and the laboratory or mining facility connected to a landing strip. Presently, in our minds we envision men in funny suits roaming the planet in hi-tech golf carts. However, to reduce the loss of oxygen, decontamination from dust, loss of time and power to evacuate airlocks while minimizing the procedure exposing members to the harsh environment, we suggest a capsule that one can board from each area – reducing space rovers, maintenance shops, and the time consuming use of bulky suits minimizing hazardous space walks.

Safety, the most important item: We suggest the use of Space Ship One's fuselage mold design to create a functioning escape chamber – mated with the crew vehicle. This already has been space tested and with permission is available at Scaled Composites. Functions needed are:

- Serving as a control chamber, some modifications to the available systems are required to turn the space vehicle to a guideway vehicle.



- Air makeup units and reserve air tanks, a modification?
- A rear-entry quick-close hatch to seal it from the main compartment if either chamber is breached.
- A patching system in both cars to seal meteor and other puncture holes. Not having an atmosphere on the Moon leaves small protection from these hazards. Additional roof protection and the overhead structure are another means of deflecting missiles and shielding from radiation.

- A modification to the communications to allowing redundant wireless communication and airflow from both chambers.

Transporter – a linear robot and excavator funded in part by Florida’s Technological Research & Development Authority. The structure will be different and slender. A new patent would be examined for space mining use.

Air Conservation: While transferring between vehicles and to the outside airless environment, the energy to pump, time lost and danger for astronauts to expose themselves to this airless environment can be costly.

The docking of two adjacent vehicles pressurized to full atmospheric pressures will require over 4,000 lbs clamp pressure to seal one 3-foot diameter port surface to another in order to prevent the loss of air as the hatches are opened. A house front door 36 x 80 inches will require a clamp force of 41,000 pounds, about 20 tons of pressure, in order to be able to transfer a reasonable sized object like a refrigerator.

Electrical energy conservation – the initial lifeline brought to a Moon/Mars colony allows operation of the Moon/Mars colony:

- Initially on the Moon a producer of flexible solar collectors will provide a covering on the ground or shrouding structures upon arrival. Presently Iowa Thin Film Technologies is manufacturing a solar tent for the military.
- A solar collector and series of batteries are coordinated by the newly patented Transverter S.A.’s device that monitors, adjusts, reports overall function and decides how to use and transfer power even from damaged batteries, in the most efficient way
- It is expected that a nuclear reactor will also be used on the Moon to provide power at some sequence of populating this remote outpost, supplying major power for hydroponics, oxygen, water reclamation and mining operations. This will also be connected into the Transverter grid.
- Flywheel energy storage and grooming: Since the conservative nature of sending excess weight through space will minimize excess reserve sizing of wire, the absorption of energy surges caused by starting and stopping motors will need this or a capacitor bank for long life and absorption of surges. We have toured Urenco Power the builder of such a device.
- Superconductor wire will be very effective in the very cold space environment able to conduct ten times the current per wire diameter without the normal power losses. This seems too expensive to install on the Earth’s environment, but we have discussed this with several manufacturers. However, used on motor wheels it would reduce the motor size by ten.
- The transporter will be pressed against the opening by a mechanism in order to prevent lost time and precious air that is reprocessed removing humidity and impurities. We would also use new technology economizing the process of decreasing humidity.

Mining operations needs are new to the Moon. The Moon’s 17% gravity means that a 5000-lb load, a huge truckload of soil, weighs only around 850 lbs. This means that we can move huge amounts with a lightweight vehicle. It also means that normal mining, based on the pressures of bulldozers and backhoes or jack hammers, will be ineffective since they will just lift. Normal counterweight principles will not be sufficient since we will not be able to bring such weights or heavy vehicles cheaply to the Moon or Mars. This suggests that initially one end of the transport vehicle will act as a mining/lift arm adaptor mount. While the vehicle’s other end is locked onto its somewhat substantial overhead structure, the mining/lift arm will be used to scrape and load soil to begin the mining on the surface. It is suggested that ultimately a system of cut and covered buried paths will be constructed for safe underground passage.

The transport vehicle’s support structure will not need to be as robust as on the earth.

- The main problem is the transportation of the structural members to the Moon site and the erection of the supports on site with robot labor or dangerous space walks on the Moon's surface.
- It has been suggested by a Committee Chairman of the Transportation Research Board that we should consider aluminum for systems here on earth and build with even lighter (more expensive) alloys on the Moon. We have contacted Alcoa Aluminum and hope to work with their Aviation 20-20 team.
- As is normal, this system can be used here on earth as the most efficient means to move people and freight as described in our patent and literature. The lighter weight design can be used to transport the structures into remote park areas eliminating roads normally required for servicing of oil pumping sites, maintaining fire breaks, for the transport of materials, the visiting public and Forrest Fire Fighters.

The **vehicle's** construction has to meet the need of the carried public or freight. We have met with a high-speed ferry manufacturer Royal Crown Yachts, for a lower cost hi-tech vehicle, and several others. Also, our chief designer has had experience working at AAR Composites – a leader in monorail and aircraft design and construction.

NASA: In the long term, NASA may be seeking a transit system suitable for installation on other terrestrial bodies such as the Moon or Mars, where an elevated system could improve safety and reduce dust contamination of astronauts, yet haul the weights and volumes resulting from mining operations. This would call for reliable, portable, lightweight components capable of being launched in interplanetary space ships and then assembled remotely. In the meantime NASA engineers could gain practical experience building on Planet Earth 'overhead light suspended rail' systems.

There are other technologies that warrant study. A new design, now internationally patent pending, comprises a motor-wheel. This is a wheel that carries its own motor within it, using few moving parts generally 96 to 98% efficiency; or 10% less weight than present art. It reduces energy losses of transmissions – losing another 5 to 7%, or linear motors at 86% efficiency. Also discussed with one of the chairs of the Transportation Research Board, especially for the lower gravity of the moon would be the possible use of strong permanent magnet arrays using expired patents fitted to the superior Sky Train designs.

Space Drive Engine

This article is from David Williams' November 24, 2013 email to Gary Vesperman (edited):

Bruce E. DePalma's Space Drive Engine provides unidirectional thrust generated by a rotating gyroscope moved alternately to and fro along the thrust vector direction while precessing the gyroscope as it moves in one direction but not precessing it in the opposite direction.

Bruce put a small model mounted on a child's red wagon in which he sat while 'rowing it' across the room by manually pushing the rotating gyroscope frontwards while precessing it and pulling it back while not precessing it, like dipping an oar into the energy field of space which is an inertial energy field.

Bruce felt if this were mechanized with modest rotational and precessional frequencies and mass of gyros etc, one can produce thrusts strong enough to escape earth orbit and beyond, kind of like 'rowing your own spaceship', where we could start the experiment with a child's toy wagon like that and maybe also a rowboat analog?

The 'Starship Enterprise' might well be powered by such an inertial gyroscopic propulsion device operating at appropriate rotational/precessional frequency to mass ratio to produce accelerations on the order of orbital escape velocity and beyond without any exhaust or fuel being burned to produce the thrust itself, only to rotate and move the thrusters.

(The following is copied from <http://depalma.pair.com/GenerationOfUnidirectionalForce.html>.)

Similarity Institute
22 April 1974

The Generation of a Unidirectional Force

by **Bruce E. DePalma**

Summary: The theoretical prediction and experimental elucidation of the variable ratio of inertial to gravitational mass of a constrained gyroscope under forced precession opens up a new field of Inertial Mechanics. The controllability of inertial mass makes possible the generation of thrust by mechanical motion alone. A new device, the Linear Force Machine, is described which operates on a heretofore unrecognised interaction between rotation, magnetism, and inertia, to generate a unidirectional force as a solid state interaction. The application of a controlled and directed mass field flow to the containment of a controlled thermonuclear power reaction is discussed.

The Generation of a Unidirectional Force

Introduction: The mechanical generation of a unidirectional force, is shown to be a consequence of the variable inertia property of matter.

The Linear Force Machine: A series of experiments¹, has elucidated a variability in the ratio of inertial to gravitational mass of real objects. The key to the unsuspected variability of inertia of real material object lies in heretofore unrecognised properties of rotation. The possibility of inertial control makes practical the generation of a unidirectional force through purely mechanical interactions.

There are many ways to control inertia of objects, but all of them are based on the primary interaction of rotation and inertia. The simplest manifestation of the phenomena is the rotation of a spherical material object. Depending on the speed of rotation, the inertial mass of the object will vary as the square of its rotational velocity. The ratio of inertial to gravitational mass may be found by pendulum experiments. This ratio is defined as the OD number, this quantity having found to be dependent on the angular velocity of rotation of the test object, its composition and geometry, and the value of linear acceleration which is applied to the rotating object to test for inertial mass. All things considered then:

$$N_{od} = \frac{\text{inertial mass}}{\text{gravitational mass}}$$

For the simple spherical metallic object, the spinning ball, the od number may reach factors of five or so as the rotational speed is increased to the point where the object will explode, i.e. 50,000 rpm for a 1-inch steel ball bearing. For practical controllability of inertia, larger inertial variations must be created and be subject to control other than the rotational acceleration of a test object to 50,000 rpm and then back to zero again as part of a cycle.

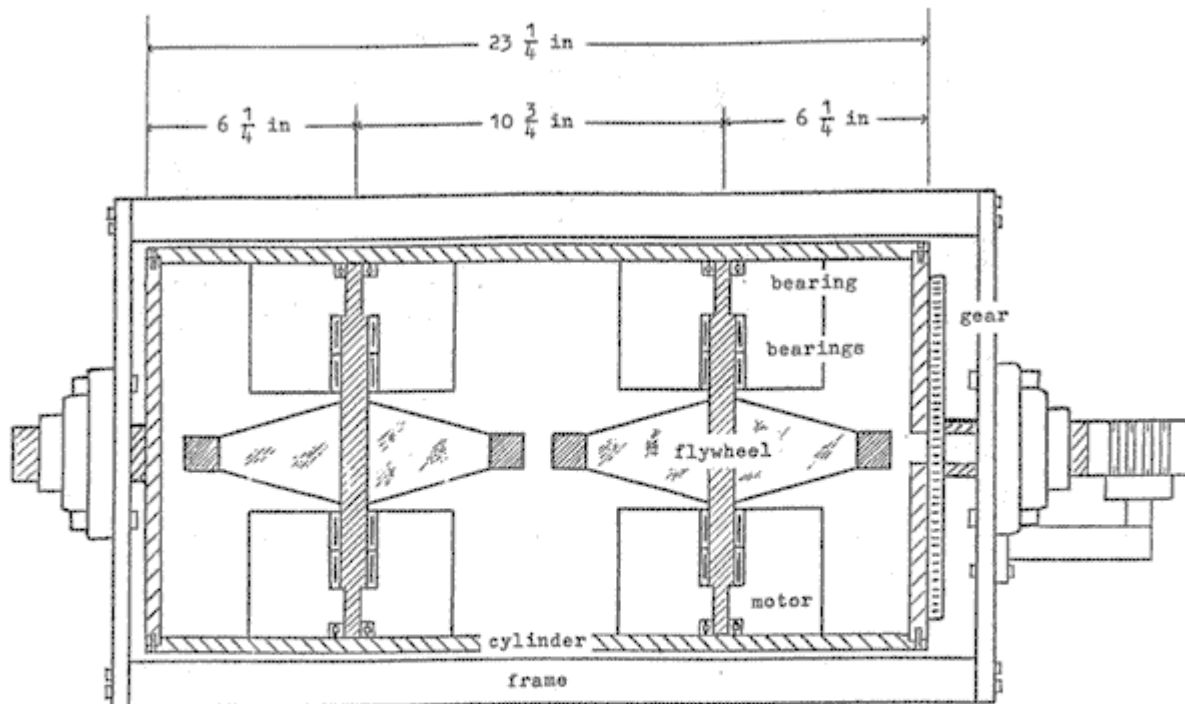
A much more powerful interaction takes place through the precession of a constrained spinning gyroscope. The ratio, inertial/gravitational mass, of a constrained spinning gyroscope can easily reach a factor of several hundred, depending on the velocity of precession and the rotational speed. N_{od} is, (at least) a function of the square of the precessional velocity. That is:

$$N_{od} \text{ (precession)} = K\omega^2\Omega^2 + 1$$

Where ω = gyro angular velocity
and Ω = angular velocity of gyro precession

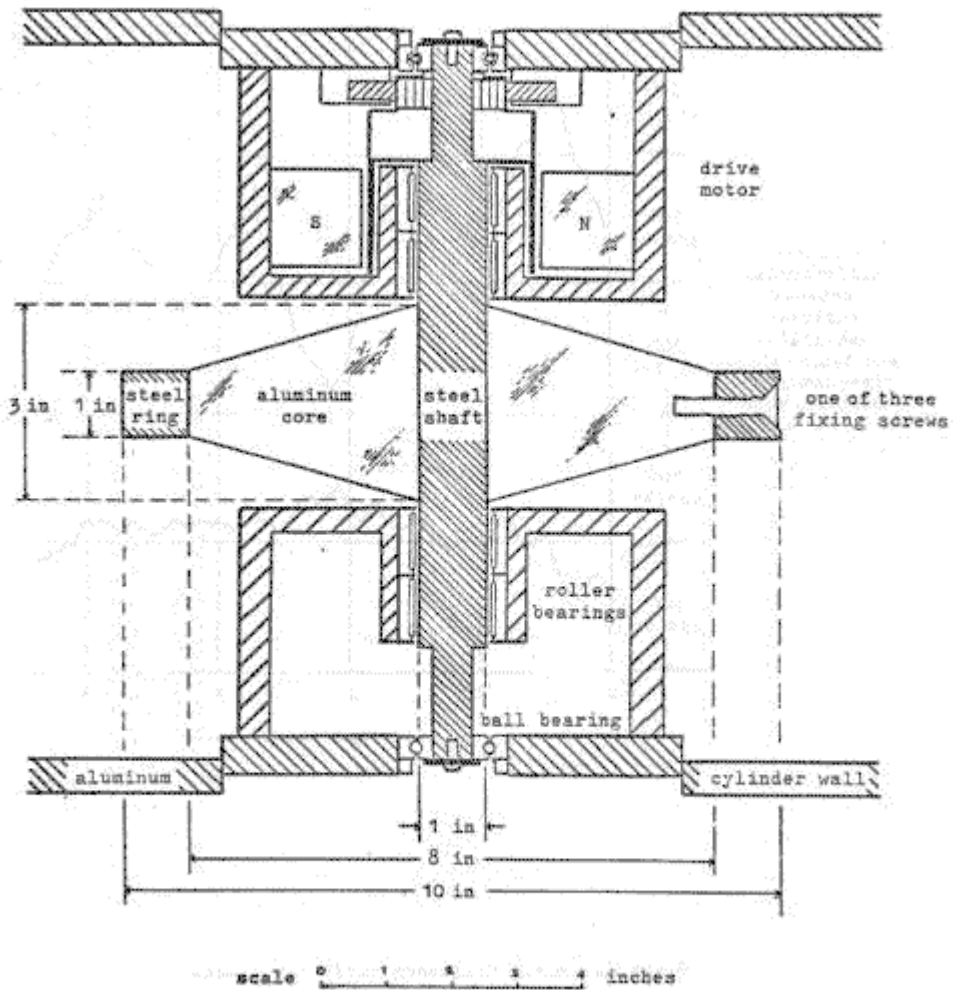
K is a geometrical and physical constant.

A suitable mechanism for the demonstration of the unidirectional force is a mechanical arrangement based on the force machine. A force machine, c.f. figure (1), is a combination of two mechanically identical gyroscopes, rotating coplanar and with parallel axes, in opposite directions at equal angular velocities. Such a device allows us to study the properties of rotation without interference from gyroscopic torques.



scale 0 1 2 3 4 inches

Figure 1. The Force Machine



Details of the Force Machine Flywheel

Figure (1a)

Since inertia is isotropic, it is clear that inertial changes engendered from procession are reflected in linear inertial changes as well. A sequence of operation is indicated. Consider the energized (gyros turning) force machine. The machine is pushed away from the experimenter in the low inertia (no precession) condition. When the machine is pulled back, however, the gyros are precessed at some angular velocity Ω . The condition of precession multiplies the inertia of the rotating gyroscopes by a factor of several hundred times. This is reflected linearly and presents a strong resistance to the force exerted by the experimenter attempting to return the machine to its original, (near) position.

A combination of linear and torsional oscillations, (the latter at $1/2$ the angular frequency of the former), will produce a unidirectional reaction force in the direction of linear oscillation of the energized force machine.

A phase diagram showing the relationship of the linear velocity to torsional oscillation and the direction of net momentum flow, appears in figure (2). A combination of mechanical linkages to accomplish this effect in a rapid cyclic manner is shown in figure (3). The resultant momentum flow is a product of N_{od} (precessional) $f(t)$ and $v(t)$ (linear motion), and represents the unidirectional reaction force.

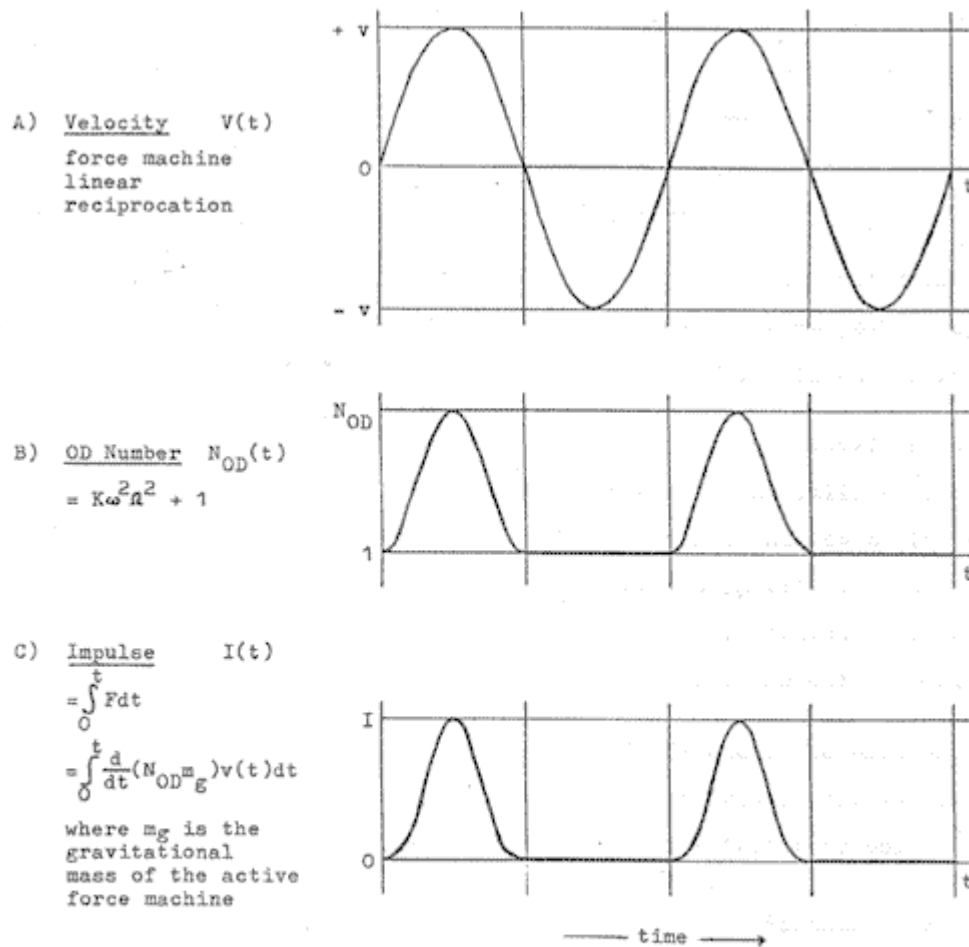


Figure (2) Phase Diagram

Shows the relationship of linear reciprocation to torsional oscillation, (driven precession) in the production of a unidirectional force.

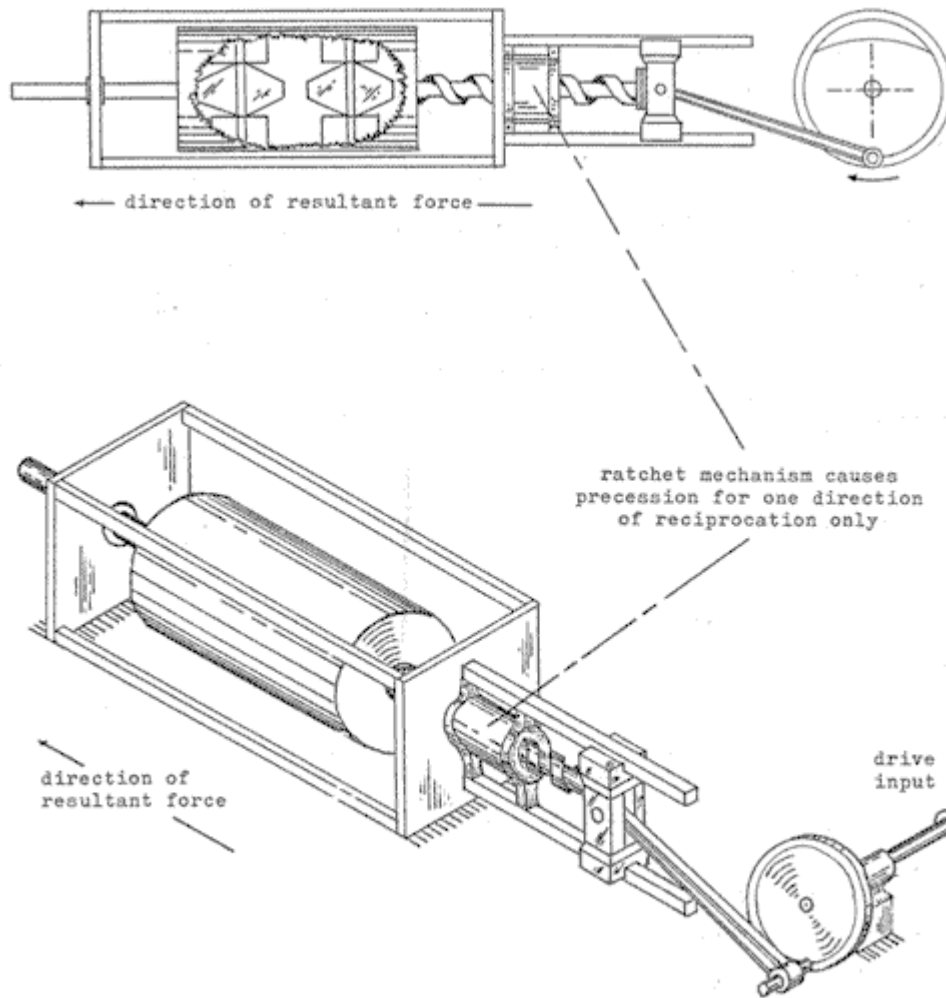


Figure 3. Linear Force Machine (mechanical)

The machine of figure (3) has been constructed in our laboratory and delivers unidirectional reaction force in the pulsating manner expected. The device is called a Linear Force Machine.

Inertial Mechanics: The field of inertial mechanics refers to that class of mechanical experiments wherein inertia becomes a variable. Although the mechanical force machine demonstrates the usefulness of the variable inertia concept in the generation of a unidirectional force; there are several reasons why such a machine stands in relation to its ultimate form in the same wise as the early rotating mechanical radio frequency generators stand in relation to the modern high power vacuum tube or transistor radio frequency power oscillators. In the first place the delivery of force or momentum impulses is in a pulsating manner. It would be highly desirable to have the delivery of force or momentum in a steady manner. Secondly, the necessity of maintaining the condition of energization of the force machine requires a steady high speed rotation of constrained gyroscopes. As well as the necessity for the supplying of the rotational excitation via electric motors or mechanical gearing, the necessity for sturdy bearings to support the gyros under intermittent reciprocating precessional torque reactions. The fact that these are problems of a conventional sort, which can be easily solved through accessible bearing technology, does not mitigate against the search for a more desirable rotational-inertial interaction.

In the linear force machine thus far described, the form of the motion imparted to the force machine, is called 'three dimensional'. The form of motion where driven precession is coupled with linear oscillation is called 'streptation', a derivative of the Greek word for twisting.

What is desired is a mode whereby streptoid motion can be achieved without mechanical linkages and reciprocation. Such a machine would achieve the generation of unidirectional force without pulsation.

Inertial Drive: The ideal inertial drive would achieve a smooth flow of momentum in a desired direction with the resultant reaction force of steady and constant magnitude. The method of accomplishing this result is through a heretofore unrecognized magnetic interaction. With reference to figure (4) we observe a rod of medium hard magnetic material suspended within the gap of a permanent magnet. The length to diameter ratio of the magnetic core determines the dimensions of the magnetic gap. From the front to rear of the machine the magnetic gap is twisted 180 degrees. The magnetic core is suspended on bearings designed to withstand whatever thrusts are generated by the machine.

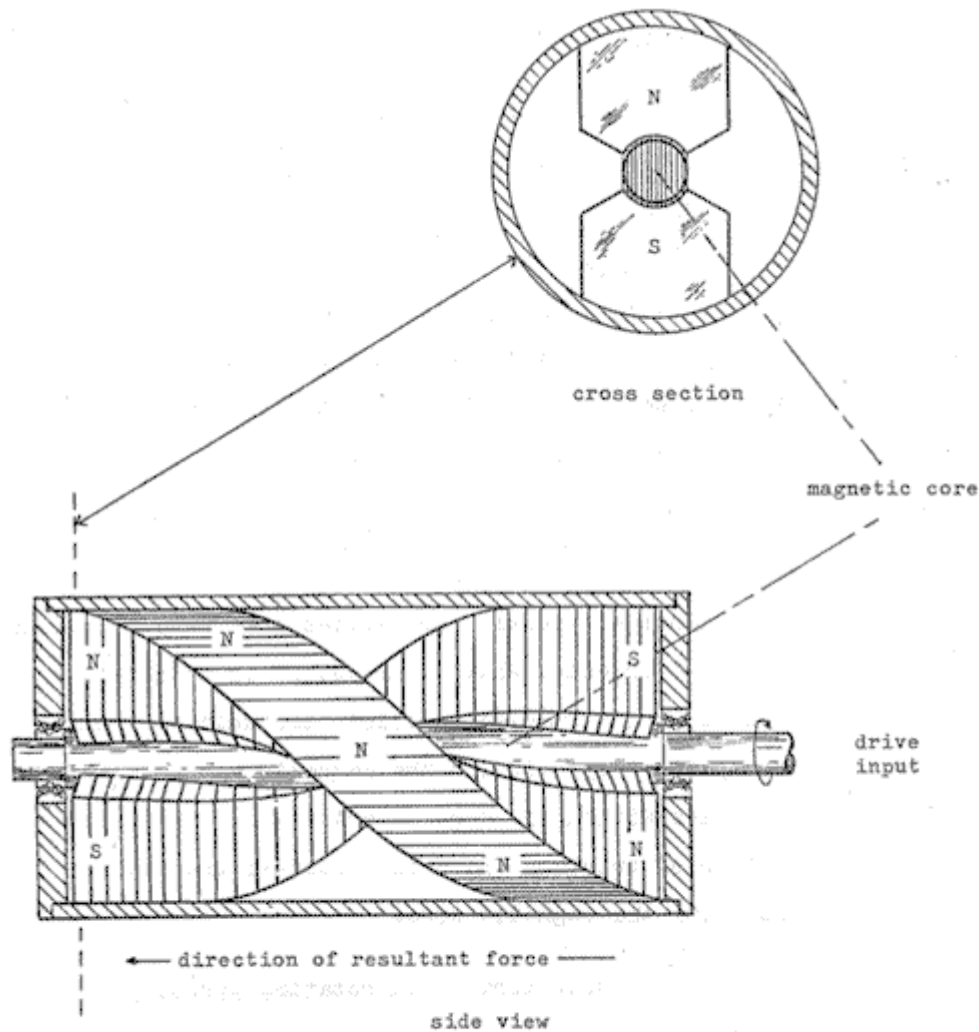


Figure 4. Linear Force Machine (magnetic)

Within the gap of the permanent magnet the magnetic induction is maintained such that the magnetic core is saturated under all conditions of operation of the machine. Under such conditions the external magnetic field maintains alignment of the magnetic dipoles within the material such that no projections of internally generated torque vectors, produced by rotation of the magnetic core within the gap, can appear in the drive axis. This is the familiar disappearance of hysteresis torques under saturation conditions, and represents the condition of constraint of a rotating gyroscope.

Motion of a magnetic material in a magnetic field sufficient to cause saturation elicits the identical inertial properties that have been found in rotating real mechanical objects. What is necessary is to obtain the streptoid three dimensional motion in order to elicit the unidirectional force. This is simply accomplished by twisting the magnetic gap so that in rotation the magnetic dipoles within the core material are both twisted and translated. The combination of twisting and unidirectional translation is simply accomplished by rotating the magnetic core.

In like manner to the precession torques of rotating gyroscopes, the hardness of the magnetic core material will determine the strength of the interaction. The ultimate force handling capacity of the machine will be limited by the demagnetization of the rotating core through inability of the external field to maintain constraint over the magnetic dipole interaction.

The machine of figure (4) becomes a fundamental drive unit, capable of generating a thrust against 'space' itself, and thus may replace all earlier methods of generating unidirectional motion, i.e. gears wheels transmission units for road travel, and propellers and jets for airborne vehicles.

The Mass Field Effect: The ability to enhance the inertia of a rotating object controllably makes for the possibility of controlling the flow of inertia. The mass field or OD field represents the possibility of storing energy in the inertial property of space. That this has been shown as a field which exists is the result of our prior experiments. Now the possibility of a directional flow of that inertia, the mass field, exists as a concomitant of the operation of the linear force machine. A directed mass field flow can have useful mechanical applications.

The Hydrogen Fusion Reaction: Although it is cloaked in many mysterious terms relating to the properties of nuclear plasmas, the fusion of hydrogen to helium is nothing more than another form of burning or combustion which can only take place under conditions found in the interior of stars. Creation of such a condition here on Earth entails the creation of a region of space, a 'bottle', wherein the proper temperature and conditions for such a reaction are maintained. At a temperature of 10^9 degrees K, the necessary conditions can be maintained only through a field of force.

Prior attempts to contain the reaction through electric and magnetic interactions with the charged plasma have failed through the inability to generate sufficient forces for containment. Although at present, it is just an experimental possibility, it is suggestive to consider a containment region maintained through the mass field flow of a suitable number of linear force machines arranged geometrically with their force vectors convergent to delimit the reaction region.

Mass Field Flow: When an OD or mass field is created, its first order effect is to enhance the inertia of material objects immersed within the active region. Momentum can also be transmitted through a mass field, and this is responsible for the conundrum of a 'mass field flow'.

In general we associate a flow with the movement of material. The flow of momentum associated with the mass field of a linear force machine, is, a directed flow of inertia which acts to produce a linear force on mass particles immersed within the field. The resulting flow which takes place, is described by the motion of test mass particles. Thus, although the mass field does not itself flow, test particles immersed within it are acted or by forces which cause motions similar to those of the fluid flow in liquid and gasses.

On the basis of this analogy we can see how a region of containment can be created by the geometrically symmetrical and radially inward convergence of directed mass field flow. In many respects the magnetic core of a linear force machine resembles an antenna whose directivity is a function of the length to diameter ratio of the rotating member. If this relationship holds true, it is suggestive to consider the

degree of focusability of these beams and the attractive and repulsive forces which may be set up in a properly directed array. The potentialities of these arrangements need to be explored in every possible detail in view of the possible vital payoff in terms of the controlled fusion reaction. Other possibilities of controlled and directed mass field flow are left to the imagination of the observer.

Conclusion: The linear force machine, as a mechanical prime mover, replaces gear trains, propellers and jets, as a device for the generation of thrust with one moving part, and the polarity of thrust determined by the sense of input shaft rotation, this machine becomes a fundamental tool of our civilization. In degree of sophistication, this machine represents the level of scientific inquiry of our society. The forces which use and make ready this device for the benefit of society, will have at their disposal a tool of unprecedented force and power. The use of this machine to enable the controlled thermonuclear fusion reaction will inaugurate a new dawn of civilized society on this planet, and will inaugurate the entrance of Man into interplanetary space and ultimately the stars.

22 April 1974

Bruce E. DePalma

(1) references to the force machine experiments:

- | | |
|---|----------------|
| a) <u>Antigravity</u> | 9 January 1973 |
| b) <u>The Force Machine Experiment</u> | 9 January 1973 |
| c) <u>The OD Effect - A New Physical Phenomena</u> | 9 June 1973 |
| d) <u>The OD Effect - Radio Frequency Shift Expt.</u> | 17 June 1973 |
| e) <u>The Effect of Gravity on Rotating Objects</u> | 18 March 1974 |

Acknowledgement is given to **Mr. John S. Wolf**, (formerly of) 741 Torrington Place, Dayton, Ohio 45406, for the independent development of the theory of the relationship of inertial to gravitational mass of a precessing gyroscope, and to whom the terms 'mass field effect' and 'streptation', are credited. Mr. Wolf is one of the pioneer investigators in this new field of inertial mechanics.

IPMS Thermal Electric Cooling Devices

The I.N. Frantsevich Institute for Problems of Materials Science (IPMS) was established in Kiev, Ukraine in 1951. It operated in absolute secrecy and was totally unknown to the American intelligence community until just prior to the implosion of the Soviet Union in August of 1991. The mission of the Institute was to use whatever tools or means were necessary to know everything there is to know about materials. They had no production deadlines to contend with, and there was not a single applications engineer in the entire organization.

The 6600 scientists and technicians who worked in the Institute developed an entirely new model of nonlinear quantum mechanics to describe the forces which make the world we live in behave as it does. This new model suggests that the material world is substantially different from the world described by the models relied on in the West. Seven new sciences, twenty-seven new technologies, and one hundred thirty previously unknown materials developed in the Institute are based on the same revolutionary new model of quantum mechanics.

Research and development in the deposition and culture of layered crystal lattices has produced an entirely new class of materials, previously unknown to Western science. These are referred to in recently submitted patent application documents as "Thermal Electric Cooling Devices". Because of the nature and function of a specially designed combination of crystal layered 'hosts' and their intercalated 'guest' materials, these

specially designed capacitors actually absorb energy when subjected to a flow of electrical current, producing a specific cooling effect on the material surfaces. All other known materials produce heat when subjected to the same conditions. Temperatures of 60 degrees Kelvin (-259 degrees Fahrenheit) have been produced under controlled, carefully documented laboratory conditions. This is cold enough to liquefy free-standing nitrogen gas from the atmosphere.

The potential applications such as vehicle and spacecraft air-conditioning for this technology are manifold, but perhaps the most important is the potential it provides to totally eliminate any need for the use of compressed fluorocarbons of all types in refrigeration. Parallel applications in the telecommunications, computer and electronics industries have also been demonstrated to be highly effective and cost efficient, particularly as they relate to the use of super-conductive materials.

(Source: David G. Yurth, *The Anthropol Files: Tales of Quantum Physics from Another World – 2nd Edition*, 2007)

Low-Temperature Diamond or Titanium Nitride Coating of Rocket Parts

Durability would be enhanced by nondestructively coating numerous parts such as shock absorbers with diamond or titanium nitride using Alvin Snaper's new low-temperature coating process (US Patent No. 5,254,237 for Plasma Arc Apparatus for Producing Diamond Semiconductor Devices). The diamond deposition system and process can also be used to manufacture diamond-based semiconductor devices. A multiple gun plasma arc deposition system allows controlled deposition of diamond and other diamond-like materials such as titanium nitride on a substrate. Deposition is controlled by controlling the time duration of pulses to a main gun, an acceptor gun and donor gun in a vacuum chamber that may contain a small amount of hydrogen. The deposition process is also enhanced with microwave temperature control and substrate dithering with a transducer.

IPMS-Chernovitsky Super Ceramics

The I.N. Frantsevich Institute for Problems of Materials Science (I.P.M.S.) is one of more than 70 institutes founded by the government of the Soviet Union during the decade following World War II. Its mission was very simple: the scientists forcibly relocated from post-war Europe and enslaved at the Institute were commissioned to learn everything there is to know about the material world. They were not asked, indeed, they were not permitted, to make any decisions about how their discoveries were to be applied. In fact, from the outset and during all of the ensuing 40 years, there was not a single applications engineer among the 6,600 scientists who worked in the Institute.

The peculiar set of circumstances which provided the essential breeding ground for the extraordinary discoveries spawned by the Institute was not reserved just to the I.P.M.S. The central government of U.S.S.R. jealously guarded its absolute right to make all decisions about what was done with the discoveries created in all the institutes. It is not surprising, therefore, that a system of government so paranoid about anyone stealing a pair of shoes that it manufactured left boots in Moscow and right boots in Kiev, would totally fail to recognize or effectively apply the benefits of some startlingly new sciences to clothe, house and feed its own people.

In fact, it was precisely because the Institute was forced to operate in a purely theoretical environment, with no pressure whatever to meet production or marketing deadlines, operating virtually isolated from any contact with the outside world, that the scientists and academicians were able to produce at least 7 whole new sciences, 30 technologies, and 130 materials unknown in the West. It is largely because the most brilliant theoretical physicists in the entire Soviet Union were able to work for nearly 50 years in the singular pursuit of pure research that the sciences developed at the I.P.M.S. are so fundamentally unique.

It is interesting to note that only a small part of the new sciences developed at the Institute was revealed to or known by the government of the former Soviet Union prior to its collapse in August, 1991. The antipathy of the Institute's scientists to the USSR government's shabby treatment led them to successfully hide nearly all of their often revolutionary research results.

One of the Institute's four sites, IPMS-Chernovitsky, developed moldable, machine-able, ultra-high temperature, super-hard, and strategic metal-alloyed ceramic substances.

The uniformity and density of ceramic materials is what determines the quality, consistency and persistence of the resonant tone produced by an oscillating crystalline material. Research has created a whole new family of moldable, machine-able, ultra-high temperature, super-hard and strategic metal-alloyed ceramics capable of withstanding operating temperatures of 1200 degrees centigrade. This is more than 400 degrees centigrade higher than can be tolerated by other known ceramic materials commercially available anywhere else in the world, including those manufactured by Allied Signal Corporation and Kyocera.

These materials are being utilized in entirely ceramic internal combustion engines, high-speed turbines and self-lubricating bearing surfaces. The latest ceramic materials designed for use in high-speed jet turbines operate continuously at temperatures in excess of 1200 degrees centigrade. This is more than 400 degrees centigrade higher than the theoretical limit allowed by the quantum mechanics model relied on in the West.

The ceramics produced at the IPMS-Chernovitsky plant have been made harder by fully one factor of hardness than the hardest alloyed metal machine tools currently produced by any other known means of manufacture. They have been made harder by at least one full order of magnitude than either natural or synthetically produced diamonds. Practical applications include drilling and mining, grinding tools, down-hole equipment, tool inserts and the new generation of cubic boron nitride tools that are currently in use.

Proof positive of the extraordinary uniformity and density of these materials is easily verified by a simple demonstration if the measurement of softening temperatures is deemed insufficient. Ceramic pistons manufactured for use in ceramic diesel engines will, when struck by a hard object, produce a clear resonant tone which persists for more than seventeen seconds. This is at least eight seconds longer than the resonant persistence produced by the finest glass or crystal ever manufactured,

The world's biggest airplane is the Russian Antonov 225 freight carrier. It has 32 wheels and six very large jet engines. Partly thanks to IPMS-developed sciences, technologies, materials, and devices, Russian military and aerospace manufacturing could be as much as 50 years ahead of Western manufacturing capabilities.

(Source: David G. Yurth, *The Anthropos Files: Tales of Quantum Physics from Another World – 2nd Edition*, 2007)

IPMS Micro-Channels and Filters

The I.N. Frantsevich Institute for Problems of Materials Science (IPMS) was established in Kiev, Ukraine in 1951. Between 1945 and 1955, the government of the Soviet Union created at least 72 self-contained, completely isolated scientific communities like the IPMS scattered all over the most desolate parts of the Soviet empire. Stalin systematically established more than 360 such enclaves as a matter of policy. He deliberately prevented the scientists and their families from co-mingling with the rest of Soviet society or corresponding with the West. This phenomenon of cultural isolation was typical of life in the U.S.S.R. after World War II.

Many of the key scientists who were forcibly expatriated by the Red Army under Stalin's orders and relocated to work in the Institute had been captured by the Soviet armies during the occupation and annexation of Eastern Europe at the end of World War II. Only a handful of them succeeded in escaping to the West. Those who tried to escape were almost always captured and executed. In some cases, their families were sent to languish and die in the Gulags.

Many of the original team of scientists sequestered in L'vov, the entrance to the Institute, had been contemporaries, co-workers and close personal friends with many of the most prominent physicists and other scientists who emigrated to the United States before, during and after World War II.

During World War II in Europe, and afterwards in Stalin's Soviet Union, the original Directors of the Institute experienced the horrors of developing technology for destructive military use. For more than 40 years, scientists at IPMS (and, no doubt, at some of the other Soviet institutes) elected to keep secret as many of their key discoveries as possible until a time when their genius could be constructively applied to solving the global materials, energy consumption and industrial manufacturing issues which are responsible for the current deplorable state of the environment.

Among the original group of scientists relocated to work in the Institute were some who were part of the German team which worked during World War II to develop fissionable nuclear materials, synthetic fuels and foods, and other technological advances for the Third Reich. Information regarding the advanced nature of some of the work they participated in has only recently been declassified and released to the public. Some of the formulas and technologies they developed were absolutely revolutionary and many have never been replicated in the post-war world.

Among recently declassified files is a set of documents which describes the development of infra-red, heat-seeking 'smart bombs' which were so effective that a single bomb, dropped by a single Nazi bomber in a night attack in the North Atlantic in 1942, sank a British troop ship carrying more than 3,000 American troops. The bomb recognized and guided itself down the troop ship's smoke stack in much the same way similar devices were observed to function during Operation Desert Storm, nearly 50 years later. The technology which made this device functional was so far advanced beyond anything available to the Allies at the time that the War Department kept the story classified for more than 50 years.

Many of the materials, processes, technologies and applications produced by the Institute are so unique that in some cases there are literally no words in the languages of the Western industrialized nations to describe them.

IPMS has produced a family of micro-channel and filter materials with uniformly controllable orifices as small as .5 micron from combinations of carbon-fiber, basalt, ceramic and strategic metals – including stainless steel, scandium and chromium. These materials demonstrate a consistency of orifices fully a factor of ten times smaller and more consistent than the smallest ever manufactured in the U.S.

These materials have been used in applications for heat exchangers, catalysts and separation of gases on a molecular level. A notable application involves the use of such materials to separate virtually 100% pure CO₂ from hydrogen gas at the well-head from gas wells. Then 98% of the CO₂ can be pumped back into the well for re-pressurization, with the pumps then being operated directly on virtually pure hydrogen fuel.

The scientists, academicians and others at the Institute who developed revolutionary new models of quantum mechanics, quantum physics and the manufacturing processes and techniques which resulted in these materials, refused as a matter of conscience to allow much of what they had developed to pass into the hands of the KGB and the Soviet military.

(Source: David G. Yurth, *The Anthropos Files: Tales of Quantum Physics from Another World – 2nd Edition*, 2007)

IPMS High-Temperature Gas Plasma Detonator

Since its establishment in 1951, the I. N. Frantsevich Institute for Problems of Materials Science (IPMS), Kiev, Ukraine, has been secretly developing, testing and producing more than 130 new materials in 30 general materials categories. IPMS scientists have developed a whole new science based on their unique model of plasma physics. With their invention of a high-temperature gas plasma detonator, strategic metals and other commonly used materials can literally be sprayed onto the surface of other, previously incompatible materials. These gas plasma detonation spray technologies make it possible to create permanent molecular bonds between materials which could never be married together before.

Chromium materials of an entirely new type have been developed to provide high-purity cathodes and targets. Moldable, flexible chromium (a type of material never before available) can now literally be sprayed to conform to widely varying shapes for linings (i.e., to reduce internal pipe corrosion), provide nuclear rod protection, and highly effective space hardening. These techniques have been perfected and used in practical field applications for more than 35 years.

The unique nature of these technologies may not be readily apparent to those not intimately familiar with the commercial and industrial uses of such materials. In more ordinary applications, however, the importance of being able to provide solid targets, stand-alone ingots of ultra-pure chromium, scandium, magnesium and other exotic materials, cannot be overstated. Today, the state-of-the-art in the West only allows chromium, for example, to be transported and used while in solution with other highly toxic liquids. Western scientists do not have the ability to produce free-standing ingots of any of these materials. The manufacturing models which rely on Western science make it clear that it is not theoretically possible for such materials to be produced in a free-standing form.

Similar materials coupled with the technologies of high-temperature gas plasma detonation have been developed for coating internal combustion engine parts to extend life cycle. They have been applied to enhance the performance characteristics of memory elements for computers and to support an extraordinary variety of totally new electronic circuitry. This technology has been successfully used to produce computer circuit boards whose operating components are intrinsic to the circuitry, thereby eliminating the utility or need for soldering or pin housings. The use of scandium, a very rare and exotic element available only in the Carpathian Mountains of Ukraine, make much of this possible in ways not anticipated by Western science.

IPMS-Kiev scientists have developed a series of diamond and cubic boron nitride powders which are smaller and more uniform than any other manufactured today. Also available in this family of materials are very fine (sometimes mono-molecular) ultra-high purity powders and liquids of refractory metals including chromium, vanadium, tungsten, scandium and molybdenum. These powders can literally be sprayed as a plasma field to

form continuous, seamless, flexible molecular bonds with host surfaces without electrolytic processes. These materials demonstrate clearly superior performance in tool hardening, cutting edge equipment and polishing.

IPMS-Chernovitsky scientists have developed an entire family of previously unknown technologies based on woven fibers made entirely of 100% pure basalt fibers (lava rock). This totally new technology allows for the production of flexible, weave-able threads. These fibers are fundamentally resistant to heat, demonstrating a softening point in excess of 800 degrees centigrade. Fibers of this material have been produced in diameters of less than 3 microns (millionths of a meter), more than 10 times smaller than a human hair.

Allied Signal Corporation in the United States has attempted unsuccessfully for more than twenty-five years to produce a single fiber of a similar type material. Today, the Ukraine has the capacity to produce these raw fibers at the astronomical rate of 100 tons per month.

These materials are currently being produced in applications involving brake shoes and clutch plates with extraordinary performance characteristics. These materials sustain only about 15% of the wear currently attributed to asbestos-based materials used in identical applications, with the added advantage that they are environmentally friendly (non-toxic and non-polluting). In current applications, parts fabricated of basalt fibers actually operate at higher efficiencies as surface temperatures are increased, up to operating temperatures exceeding 800 degrees Centigrade.

Basalt fiber materials have also been shown to demonstrate superior insulating capabilities over commercially available materials in applications involving both temperature and sound. They have been used in applications related to mine roofing, trays of water cooling systems and as both gas and fluid filters. A four-inch deep pile of 5-micron filaments has been shown to demonstrate heat insulating properties in excess of R-65, which is nearly four times the efficiency of glass fiber equivalents, at one-half the weight.

Further, basalt fibers have been woven together with threads of tungsten, chromium and other strategic metals to produce cloth materials with previously unheard of characteristics. Woven metallic threads and fabrics of this type have never before been produced anywhere in the world.

Gary Vesperman has included in both his "Advanced Self-Powered Electric Vehicle Concept" and the "Advanced Self-Powered Electric Transportation Vehicles" section in his "130 Electrical Energy Innovations" (see <http://www.padrak.com/vesperman>) a monocoque (unibody) basalt/carbon fiber foam body/frame. The IPMS-manufactured basalt/carbon fiber foam is extremely strong yet lighter than fiberglass. A test vehicle made with basalt/carbon fiber foam parts was reportedly the only vehicle ever tested that can cut through a cast-iron London taxicab in a collision.

To utilize this technology to create an automobile enclosure, three technologies are needed:

1. The basalt fiber technology can only be found at the IPMS. There may still exist some spools of the stuff in or around Kiev. The principal value of the material is that it has a softening temperature of 805 degrees centigrade.
2. The Russians use powdered metallurgy to alloy their strategic metals – the ideal mix of metal powders would be aluminum and magnesium. Since both can be found in finely particulated powders and when mixed together in the right ratios, these two metals form a material which is utterly resistive to corrosion and which has excellent tensile strength.
3. The powdered metals are mixed in a chamber like dry cake mix and then applied using a third technology – in IPMS documents, this technology is referred to as a "High-Temperature Gas Plasma Detonator". The metal powder is poured into a ceramic container, which funnels it into a specially designed

high-temperature containment vessel which is also surrounded by super magnets (see IPMS-Kiev and Arzamas-16: Super Magnets elsewhere in this space travel innovations compilation) and arranged in a very precise order to create a compressive effect. When the powdered metal is brought into the chamber, high voltage, high pressure and extreme magnetic fields reduce the metal powder to plasma, which is then expelled through a nozzle and onto a target – in this case, the woven basalt fiber which creates the shape of the vehicle.

When the metallic plasma collides with the basalt fiber material, it has a temperature of about 1600 degrees centigrade. This causes the basalt fibers to soften and partially melt – but the cooling gradient for this material is so steep that it cools almost immediately below 800 degrees centigrade, at which point the fibers reconstitute. This creates a basalt fiber-reinforced metal-alloyed shell which is extremely strong, very light weight and can be polished to a high sheen.

This is the technology the Russians have used for 35 years to create fuel cells for their huge rocket boosters – and it is the reason their boosters are so light, have no gaskets or seams and can be reused over and over again. It is primarily because of their extensive use of these integrated technologies that the Soviet space program has been able to consistently deliver larger payloads into orbit than any other nation since the space race began in 1957.

(Source: David G. Yurth, *The Anthropos Files: Tales of Quantum Physics from Another World – 2nd Edition*, 2007)

IPMS Crystal Lattice Energy Storage/Battery Device

During the summer of 1984, airborne intelligence surveillance teams of the United States Air Force, operating out of specially configured and equipped Boeing 707 airframes (called AWAC's) electronically detected (and then shortly thereafter photographed) bursts of coherent light of enormous power originating in the vicinity of Dushambe, Turkministan. The bursts of light, a brilliant blue-green color, lasted just a few seconds and were shifted almost to the ultraviolet end of the light spectrum. The 'laser' beams were directed upwards out of the atmosphere towards American military communications satellites.

At precisely the same time the AWAC's detected and photographed the laser bursts (they were referred to in that jargon by American military analysts but later proved to be something almost entirely different), several of the satellites essential to America's global military command and control communications systems became inexplicably inoperable.

The Defense Intelligence Agency, under the direction of the National Security Council and assisted by the National Security Agency, escalated its surveillance of the remote site in the Ural Mountains from which the bursts first originated. For several months, during a concerted campaign of uninterrupted observation by AWAC's and American spy satellites, no additional bursts were observed or reported. Then, without warning, in the middle of the night nearly seven months later, AWAC's crews operating just outside the territorial airspace of Afghanistan detected similar laser bursts of lower intensity during a period of intensive localized ground warfare.

The Afghanistan bursts were apparently aimed at targets under attack by Soviet infantry units. The laser bursts continued in a sustained, localized but obviously mobile attack pattern, as frequently as four or five times per hour, until nearly sunset of the next day. Photographic evidence gathered at the time by the AWAC's crew, and later corroborated by photographs taken at the actual site of the fire fight and forwarded to the U.S. for analysis, showed that the targets of the laser bursts were ammunition and fuel supply depots located in the remote desert. Several of the ammunition and fuel caches had apparently been destroyed during the attack, as demonstrated by the evidence of explosions, fire, smoke and residual infra-red heat patterns detected, photographed and electronically recorded on-board the AWAC's.

All this information was transmitted (via encrypted communications bursts, routed through the military Global Command Control satellite system) to the National Security Agency (NSA), located at Fort Meade, Maryland. Analysts there recognized that they were looking at evidence of a weapons system which had never been observed before. They did not know what had produced the laser bursts. But they did know that the technology which made such a thing possible was not available to the countries participating in the NATO Convention. They were terrified at the implications of such a development.

Within hours, the information was packaged into classified documents and conveyed to the Joint Chiefs of Staff. The Joint Chiefs examined the information while they were being briefed by the AWAC's crews which had witnessed and recorded the events. After the briefing, the crews were dismantled, and their various members stationed far away from one another, with orders never to discuss the events they had witnessed. Officially, the laser bursts never had occurred.

Secretary of Defense Frank Carlucci took delivery of the packet at his residence in Falls Church, Virginia, three days later, at a private, secret meeting held in the middle of the night. No one has yet adequately explained why the Joint Chiefs waited three full days to brief the Secretary. Early the next morning, he was driven in a specially prepared bulletproof limousine to the White House. He personally delivered the information to the new President of the United States, Ronald Reagan. The content of the Secretary's report had an immediate, measurable impact.

It was this series of events which principally precipitated the Strategic Defense Initiative (SDI), a program of military defense and reprisal based on America's state-of-the-art satellite-borne laser-optical and particle accelerator technologies. The SDI system was intended to provide the U.S. with a meaningful deterrent to further aggressive use of the technology developed by the Soviet Military.

There was only one problem with this system, aside from the fact that its astronomical costs almost bankrupted the American economy: It did not work. SDI was designed to respond to a kind of technology which was not achievable in the West, and which could not be explained by any of the models, materials, technologies or sciences known in the West.

In 1985, the top-secret military version of the space shuttle, code named Atlantis, embarked on a special orbital mission. One of its mission assignments was to retrieve, examine or photograph the military spy satellites which had been disabled by the laser bursts recorded in 1979-84. The results of this investigation have not been declassified or released in any but the most censored version to the public. What we do know for certain, as a matter of publicly available non-classified information, however, is that each of the disabled satellites appeared to have had at least one, and in some cases as many as four or five precisely measured holes, approximately the size of an American silver dollar, melted completely through them from the outside.

The photographs taken of the satellites show evidence of intense heat, charring and carbonized residue evenly distributed around the perimeter of each hole. The evidence is clear and unmistakable – the satellites were disabled by a coherent beam of some sort, characterized by such intense energy that it was possible to melt consistently measured holes through the exterior and interior components of American military satellites, after having passed through the atmosphere of the planet and into space for as many as 325 miles. Such a thing has scarcely been dreamed of by the American military, much less put into any but the most nominally effective operational form.

After more than ten years of political, economic and technological wrangling, and after the expenditure of more than one hundred twenty billion dollars in largely ineffectual research and development efforts, it is inescapably clear that no amount of money or political pressure, no amount of geo-political posturing or economic sanctions was going to compel the disclosure or replication of the technologies which produced the

results photographed over the Carpathian Mountains and the Afghanistan deserts. The Soviets had developed a weapons system which was so revolutionary that it could not be explained, replicated or defended against.

The Reagan Administration's lack of specificity about the nature of the implied threat to which the SDI was supposed to respond subjected the Administration, the Defense Department and the R & D proponents of the most prominent American aerospace corporations to an endless barrage of charges by the press and the Congress. They were characterized as being disingenuous and accused of being unreasonably secretive during successive appropriations battles in the Congress.

The truth of matter is that the Reagan Administration and the Pentagon were not being disingenuous at all. They simply could not admit to the American public that they were attempting to develop an effective response to a weapons system which they did not understand and could not replicate.

There are a number of issues intrinsic to this set of circumstances, along with several dozen others which, though less well known or economically dramatic, are no less important from a technological standpoint. It is certain that the implication of these technologies has not been lost on those multi-national corporations whose entire capital structure may be threatened by the new sciences, technologies and materials which have been developed in secret laboratories, hidden in caverns excavated beneath the Carpathian Mountains, in the former Soviet Union.

Over the past decade the West has enjoyed occasional gratuitous glimpses into the heart of Soviet science. Attempts to disclose or discuss these developments in the press have been ruthlessly suppressed by powerful special interests vested in both the public and private sectors.

The science which underlies the series of events recounted here remains at the outer limits of the most advanced technology of which the West is capable. The questions posed by the military and corporate analysts about this laser beam weapons system are far-reaching in their scope and implications. Some of them are illustrative:

1) **New Model of Quantum Mechanics:** The sciences and models of quantum mechanics which produced such stunning recent developments in the West as the laser and maser make quite clear how much energy is required to create a beam of coherent light powerful enough to penetrate the atmosphere, retain its coherence in spite of atmospheric diffraction (and other effects described in quantum mechanics as 'thermal blooming'), and melt a two-inch hole clear through a satellite made of the most sophisticated alloys ever produced in the West. Except for limited short-distance demonstrations conducted with industrial grade lasers used in cutting operations, there is no known combination of materials or technologies extant in the West to make such a thing possible.

2) **New Materials:** The materials necessary to create an electrical charge large enough to power a device capable of producing such a beam certainly do exist. In quantum mechanics the term large enough does not make sense, but we can agree for the purposes of this discussion on the effect of it as represented by such commonly accepted constructs as frequency, voltage, current and ionic flow rates [as distinguished by the phenomenon of resistance].

Hydroelectric plants and large, fixed-base nuclear power plants are capable of producing enough energy to theoretically power such a device. But the energy bursts in both the Carpathians and the Afghan desert were generated by sources which moved from one location to another. In order to do that, several additional considerations must be addressed:

a. **Portability:** The power source would have to be transportable or be capable of storing sufficient energy to repeatedly power such a device. Western technology cannot produce either a portable power production unit or energy storage system capable of the performance requirements everyone agrees must be met to make the weapons system work, either in the laboratory or in the field. System portability was the most puzzling feature of the NSA/DIA report.

When carefully analyzed, the computer-enhanced enlargements of the photographs taken by the spy satellites and AWAC's crews failed to provide evidence of any tracks which could be attributed to wheeled or tracked vehicles operating in the precise locations and at the same time as the laser bursts which were observed. The implications of this set of circumstances was almost too much to believe – the devices were apparently either hand held or transportable and rechargeable in such a way as to allow them to be transported by one or more foot soldiers, without vehicular support.

b. **Enormous Power Requirement:** The materials and technologies used to construct a device capable of generating a beam of such enormous power and magnitude would have to be sufficiently advanced to enable the components to be transported without damage over significant distances in unpaved areas of very rough terrain. Such strategies, engineering techniques, construction technologies or materials do not exist in the Western inventory.

c. The continuous repetition of the laser bursts suggests that the devices can be operated repeatedly at short intervals of 12-15 minutes. This means they can be triggered with significantly higher frequency and intensity than anything which can be produced in the West, even for laboratory use. Industrial strength lasers used to cut metals require careful setup, accommodate only limited use in short bursts, require extensive cooling and must be continually recalibrated. These limitations obviously did not apply to the devices being operated in the Afghan desert. Analysts at the Advanced Materials and Technologies Laboratory agreed that the units would either have to be recharged via an external, independent device or somehow be capable of self-recharging in the field.

Such a thing is almost unthinkable by current Western military standards. Not only can we still not replicate the technology in any meaningful form, but the Soviets had refined the technology to a point which allowed it to be carried on the shoulders of ordinary foot soldiers and recharged in the field without motorized support.

Unbelievable! How was such a thing possible? According to some of the highly qualified scientists who scrutinized the photographs, it is not possible. The 'Not Invented Here' syndrome is alive and well in the American engineering community. Some of them still insist that the pictures were either fabricated or demonstrate something completely different than this narrative suggests.

3) **Energy Recharge-Batteries:** How did such high-intensity laser beam generators get recharged in the middle of the Afghan desert, in the absence of powered support vehicles or fixed-based power plants? There are a number of possible alternatives. They could have been powered by some sort of advanced battery technology. It's possible, but if the battery technology used in the West is used as a model to support such a thesis, it would take a bank of the most sophisticated batteries ever designed by NASA, arrayed in series and parallel configurations larger than five full-sized Soviet T-60 tiger tanks to power such a device.

This theoretical battery bank, operating at 100% efficiency (which is not practically or theoretically possible; the best batteries manufactured in the West operate at less than 60% discharge efficiency), could conceivably produce enough direct current voltage (in a zero resistance super conductive circuit, which is not possible, either) to perhaps produce one burst of light equal in intensity to 20% of the power required to burn a 2-inch hole through a satellite moving at 20,000 miles per hour at a distance of 325 miles.

Soviet ground forces were generating bursts of this magnitude every 12-15 minutes for more than 10 hours with nothing but ground troops. During eight hours of this exchange, it was totally dark. Something pretty remarkable must have been going on to make such a thing possible.

4) Energy Recharge – Solar Cells: Another alternative would have been to have whatever energy storage devices were being used to power the ‘laser cannons’ recharged by sunlight. The state-of-the-art in photo-voltaic cells produced in the West simply would not support such an undertaking. The very best solar cells ever produced in the West have been produced by the Japanese.

These cells operate at a maximum of 19% efficiency - that is, they convert as much as 19% of the ambient visible sunlight shining on a clear, cloudless day into ion flow, which then becomes low voltage direct electrical current flowing through a circuit. The Japanese panels require months per section to manufacture and literally cost more than their weight in gold to manufacture. They are very heavy and are so sensitive to vibration and calibration that once installed, they cannot be moved at all.

Photo-voltaic cells capable of providing enough electricity to recharge a theoretically infinite energy well would have to operate at efficiencies of 50-80% to recharge batteries of infinite electrical capacity with enough power to trigger such a device. Such cells would have to be very light weight and able to withstand extremes of heat, cold, vibration, dust, wind and other conditions encountered in a hostile battlefield environment. Nothing like that exists in the Western technological arsenal.

5) Dielectric Materials – Transformers and Capacitors: Another consideration must be reconciled before this issue can be theoretically put to rest. In order to produce a burst of coherent light of sufficient intensity to have the effect which was observed and recorded by the surveillance teams, the voltage and amperage required to support such a device would have to be staggeringly high. In order to operate at all, the voltage supplied to the system must be released all at once, not in a continuous stream but in a single coherent burst so intense that any materials known in the West would either evaporate or melt. Not only would the best dielectric materials known to Western Science melt because of the heat produced by such enormous energy bursts, but before a bolt of energy of this magnitude could even be released to such a device, it would have to be accumulated and stored somehow.

A similar set of requirements of a less dramatic type is present in all the electronic devices manufactured and marketed in the West. This includes the entire range of electronic devices such as VCR's, computers, televisions and sound components, telecommunications, information storage, transmission and retrieval systems of every kind. We could not live as we do without them. The components which convert, store and release ion flow into the circuitry of these devices are known as transistors, transformers and capacitors.

This discussion delves into a slightly technical area here, so non-scientific types will need to either become familiar with the fundamentals of electricity to understand what is meant or simply give it a possibility that what is developed in the next section is a true representation of the way such things actually operate. The discussion deals with such commonly used and seldom understood concepts as voltage, current, frequencies and resistance.

(a) Transformers convert voltage at one level of current (amperage) to either higher or lower voltage levels. When the voltage is increased, the amperage or current is proportionately decreased. A low voltage produced at a high current level can be transformed into a much higher voltage at a proportionately lower level of current or ‘power.’

(b) Capacitors: The decrease in amperage which accompanies a transformation of low voltage to higher voltage is often compensated for by a device known as a capacitor. In the most simplistic terms, capacitors 'store' electrical energy until the amount of voltage and current reach a certain minimal threshold. When that point is reached, the entire store of energy is released all at once in a single burst.

The tantalum materials used in the West to manufacture such devices conform to certain standard rules which are commonly accepted by electrical engineers. These rules have only recently been stretched by new technologies and materials developed in the West. For the purposes of this discussion, though, it is safe to say that electrical engineers have long relied on these rules because they have always produced the same results when applied in the same way. Here's an example.

It is standard engineering fare which dictates that a transformer capable of accommodating one volt at one ampere of current across a grid of one ohm of resistance will be one cubic meter in dimension. If followed to its logical conclusion, this standard rule of electrical engineering would require that a transformer capable of supporting a laser burst device of the kind operated by the Soviet ground forces in the Afghan desert would have to be approximately the size of a building built on a base 100 feet to a side, nearly 150 feet high.

Surely such a device could not have been hidden from the AWAC's eye in the sky which can clearly photograph the letters on a license plate from 60,000 feet altitude, nor could it have been moved on the shoulders of ground troops without wheeled vehicular support. The fact that there was absolutely no trace of such a huge, massive transformer device (or any other kind of structure or vehicle which could be construed to serve that purpose) means that something else must have been used instead. Military analysts had absolutely no idea what it could have been.

Such a burst system cannot operate without a capacitor of some sort. A capacitive device capable of storing the amount of energy required to power a single burst from a laser cannon, made of the most advanced dielectric material known in the West, would have to have been equally massive and, further, would have to have been cooled by some sort of strategy which would have been instantly and unmistakably detected by the infrared cameras and spectroscopic scanners used aboard the AWAC's and the spy satellites which investigated the scene.

The practical requirements of such a system are best demonstrated by the massive equipment required to operate and cool the Super Conductor Super Collider linear particle accelerators recently designed by the United States and Japan. No evidence of any such capacitive device was recorded in either the Carpathian Mountains or the Afghanistan desert. How can we explain it?

Without going into any detail about how the technologies were developed, suffice it for now to say that the Soviet ground forces in Afghanistan were equipped with a prototype of a hand-held plasma beam accelerator, the likes of which had only been roughly imagined by American military analysts. The device relied on some innovative strategies. Among these were:

Energy Storage Devices: The power source for the Soviet light cannons was comprised of a back-pack array of specially designed energy storage devices. The closest thing we have in our vocabulary to compare to them is described by the term 'battery.' In the limited sense that these devices store electrical energy, they are batteries. Any other similarity to the batteries we are accustomed to in the West ends there. The literal translation of the Russian name for them is energy accumulators.

The batteries relied on in the West are based on the chemical properties of components which, when combined in certain configurations and proportions, interact chemically with one another. The result of this chemical interaction is that it creates both heat and a stream of liberated ions – electricity. In dry cell batteries, the process of chemical interaction is one way – once they have been expended, they are simply disposed of. It is

estimated that more than 12 billion expended dry cell and lead-acid batteries are dumped into America's landfills every year.

Other batteries are designed and constructed so that the chemical reactions which liberate electrical current are reversible in some degree. These rechargeable cells are characterized by the lead-acid batteries which are used in automobiles and in commercial and industrial applications. Various strategies have been developed to make batteries relying on chemical reactions maximally effective, but the theoretical limits of effectiveness of such devices have surely been reached.

A consortium of aerospace companies working with NASA recently announced the development of an advanced sodium-hydride-based rechargeable cell which is the most efficient battery yet invented in the West. Unfortunately, it operates at an ambient temperature of 2000 degrees centigrade and, if allowed to reach temperatures outside a very narrow safe operating zone, will explode with the force of a small thermo-nuclear device of approximately ten-kiloton yield. It is not safe, but it is the best Western science has come up with. The energy storage device developed by the I.N. Frantsevich Institute for Problems of Materials Science (IPMS), Kiev, Ukraine, works on a completely different principle. Its construction is the result of a completely unique nonlinear quantum mechanical model which makes it possible to create crystalline lattices of absolutely pure carbon (and other materials) in sheets of infinitely variable dimension which are exactly one molecule thick. The crystal formation techniques and the whole body of new science which allows for their creation in the first place are completely unknown to Western science.

The mono-molecular sheets deposited by this technique are wrapped back and forth on top of each other, more than one million times per millimeter, and are separated from each other by a distance of less than one atomic diameter. At this level of construction, the material becomes subject to the rules of quantum mechanics which are almost entirely probabilistic. That means a whole atom of carbon (or almost anything else except an electron or photon) will not fit in the space which separates the lattice sheets.

When viewed under an electron microscope, the sheets produce a pattern which looks for all the world like an endless field of four-sided pyramids, connected base to base, on a single plane, with the tips of the pyramids protruding endlessly, uniformly upwards. When wrapped back and forth on top of each other, these sheets of pure carbon crystal, made of carbon molecules shaped like trillions of identical tiny pyramids, all arrayed endlessly in identical formation, are positioned so that the tips of the pyramids on the bottom sheet are matched with the tips of the pyramids on the top sheets. What remains between the pyramid tips are open 'spaces' or energy wells.

The quantum physics which describes the characteristics of the energy wells created between the layers of crystalline lattice is largely unknown to Western physicists. The Soviet model predicts with a high degree of probability that the quanta of energy referred to in the West as electrons (and, in some cases, photons), the stuff of which electricity is made, will, when introduced to the lattice structure, search, find and fit into the energy wells with military precision.

During the recharging or loading phase, the energy storage devices made of the crystalline lattice material channel one electron at a time into each well created by four carbon pyramids on the bottom layer and four carbon pyramids on the top layer. Because the rules of quantum mechanics which operate in this tiny environment demand it, each electron or quanta of energy has a certain polarity, spin and 'color' (and other mathematically defined characteristics) which must be accommodated if it is to find, fit and stay in an energy well. Interestingly enough, when a current is applied across the lattice-work structure, the electrons behave precisely as nonlinear quantum mechanics predicts they will. They flow much like a fluid into the lattice field, then separate into individual energy quanta and spin into the last energy well in each layer, automatically adjusting their individual spin, polarity and color to match their characteristics to fit the requirements of each well, until the lattice is full.

Because no chemical reactions are involved in the process of marching electrons into or out of the energy well fields, there is no resistance in the circuit. In the absence of resistance, the electrons fill the wells at light speed, never missing a space, automatically adjusting polarity, spin and other characteristics, and creating no heat. The amount of time required to 'charge' such a cell is less than 5% of the time required to recharge a conventional chemical battery of similar voltage and current.

The validity of $E = MC^2$ is called into question by the way these devices function. When the battery is fully charged, it actually demonstrates more mass than when the energy storage device is empty or discharged. The laws of quantum mechanics relied on in the West state categorically that this is not possible. It is the answer to the question, "How much does a beam of light weigh?"

According to the Soviet model, this is precisely as it should be. When this phenomenon was first demonstrated to scientists in the West who were testing the energy storage devices at the Idaho National Engineering and Environmental Laboratory, they were thunderstruck. The quanta of energy, or electrons as we refer to them, which are poured into the crystalline lattice demonstrate characteristics of mass even though they are bundles of pure energy sitting in stasis, literally at rest. The characteristic of mass is verifiable – you can measure it by weighing the energy storage devices before and after they are charged. When they are charged, they demonstrate appreciably more mass than when they are fully discharged.

If this is confusing to you, to suggest that pure energy can be shown to demonstrate verifiable mass while at rest (in stasis), perhaps you can begin to appreciate how fundamentally different the physics of all this is when viewed in the terms of Einstein's classic equation $E = MC^2$.

The existence of this technology clearly is proof positive that not only does energy demonstrate the characteristics of mass, but it does so in a state of non-motion or stasis, sitting idly in an energy well. A state of stasis is a very far cry from the terminal theoretical velocity required by the constant in Einstein's equation, equivalent to the square of the speed of light.

The scientific implications of this phenomenon are truly staggering. At very least, the verification of mass as a property of energy quanta at rest suggests that Einstein's theory of relativity may be altogether incorrect as a means of describing the dynamics underlying the real nature of the material world and its relationship to energy.

The existence of this technology suggests at very least, that energy and mass are equivalent characteristics of all things which are manifest in the material world. It is this fundamental contextual difference which distinguishes the Soviet model of quantum mechanics from the Western model. "The proof of the pudding," they say, "is in the eating."

Theoretical physicists may argue endlessly about the validity of the assumptions relied on by the IPMS scientists to develop their unique sciences, technologies and materials. But they cannot argue about the existence of the materials which have arisen from that context. They are as real as they can be. And they are unlike anything ever seen or contemplated in the West.

In the same way energy quanta stored in the energy wells of crystalline lattice materials demonstrate complete mathematical satisfaction with staying there indefinitely, when allowed to flow out in the form of an outgoing wave of electrical discharge, these quanta (electrons or photons, as you prefer) march right back out without resistance at light speed through a closed circuit to another use.

When these energy storage devices are discharged, they demonstrate other attributes which are not known in Western science, and which, because of the very nature of the chemical reactions we are accustomed to, are not theoretically possible according to conventional wisdom. Conventional chemical batteries, when fully

charged, produce electric current at a useable voltage for perhaps 30-40% of the total discharge cycle. After that, either the voltage or amperage (or both) drop to low enough levels that the devices being powered by them cannot recognize or use the electrical current which remains available. At that point, the batteries either have to be recharged or replaced.

The crystal lattice batteries have been demonstrated to produce precisely the same current and voltage levels throughout 98% of their discharge cycle. They produce no heat during discharge, regardless of the rate at which they are discharged. This is absolutely contrary to our experience with batteries, transformers or capacitors. Until the crystalline lattice materials were specifically engineered to register an electronically detectable blip at 95-96% discharge, it was impossible even for the scientists who developed them to distinguish a partially discharged battery from a fully charged one.

There is another characteristic which is intrinsic to energy storage devices which comes into play here. It is a characteristic of materials which is described as energy density. For non-scientific readers, this concept can simply be construed to mean the amount of measurable electrical current which can be produced by any device or material when its mass is converted into electrical energy. The concept is expressed in mathematical formulas as the number of watts and hours of consumable energy which can be converted from each kilogram of material. It is expressed as watt-hours per kilogram.

Here is an example we can all understand. Consider gasoline. When converted into electrical power at 100% efficiency, gasoline has been theoretically shown to have an energy density of between 550 and 600 watt-hours per kilogram of mass. In easy terms, that means that if one kilogram of gasoline were converted into pure electricity at 100% efficiency (with no loss due to heat, resistance, waste, etc.), the reservoir of energy would power a 100-watt light bulb for 5.5 to 6 hours.

Most of the high-end conventional automobile batteries of the lead-acid variety operate at an energy density rate of between 20-25 watt-hours per kilogram. The best NASA sodium-hydride batteries operate at 48-50 watt hours per kilogram. The energy accumulator devices which have been tested at the Idaho National Engineering and Environmental Laboratory have demonstrated energy densities of between 850 and 1050 watt-hours per kilogram.

What does this mean in practical terms? It means, for one thing, that for the first time in the history of science an energy storage device has been created with an energy density which is greater than gasoline or any other refined fossil fuel. It means that devices which rely on these energy storage technologies can theoretically be designed to store and deliver clean electrical power at higher rates of efficiency than any fossil fuel ever discovered.

The global implications of this technology are irresistible. It means, among other things, that the technology exists, right now, to eliminate the need to build another nuclear power plant or dam another river to produce hydroelectric power. It means we can no longer justify burning another ounce of petroleum, another piece of coal, another cubic centimeter of natural (or unnatural gas) or another tree to produce heat, electricity or power for any purpose, including transportation.

When coupled with the plasma beam devices being tested by the Soviet infantry units in Afghanistan, these energy storage devices operated at such unbelievably high rates of discharge efficiency that they made it possible to repeatedly induce huge electrical discharges in a highly mobile configuration.

The same technologies which were used to produce the energy storage devices have been adapted to create transformers and capacitors with previously unimaginable performance characteristics. Instead of adhering to the conventional western model of "One Volt at One Amp across a resistance of One Ohm equals One Cubic

Meter,” the Soviets have produced a capacitor which measures more than 1200 farads at 10,000 amperes in a package the size of a tuna sandwich.

When tested by the Technology Materials Testing Laboratory of the Defense Department at the Pentagon and at the Idaho National Engineering and Environmental Laboratory, totally new testing equipment had to be designed, engineered and constructed just to test the devices. The scientists at those laboratories had never tested anything like these materials before.

Instead of having to house transformer and capacitor devices in a series of trailers towed by diesel tractors or huge fixed-base facilities, the operating apparatus which supplied transformed power and high intensity capacitive bursts to the light cannons weighed less than ten pounds and could easily be transported in a backpack by a foot soldier.

One final question remains unanswered. “How did the energy storage devices, once dissipated or discharged, become recharged in the field, especially in the dark of night?”

The back-pack plasma beam device detected by the AWAC’s during limited combat use in the Afghanistan desert was powered by energy storage devices constructed of crystalline lattice materials. After each laser burst, the energy storage devices were recharged every 12-15 minutes (nearly 45 minutes in the dark of night – the residual ambient heat of the desert is a very efficient source of infrared energy) by sunlight, collected and converted to electricity by four-foot square panels of ‘solar cell’ material arrayed on a pole like a flag, each weighing less than ten ounces.

The electrical energy stored in the back-pack energy accumulators was transformed into enormously high voltages and released at almost unbelievably high current levels when the super-capacitors were sufficiently charged. The beam of ‘light’ detected by the AWAC’s crews was a field of plasma, flowing at the speed of light and demonstrating characteristics of mass (and, therefore, kinetic energy). The phenomenon represented by these bolts of lightning are not comprehensible according to the model of quantum mechanics and plasma physics currently being used in the West.

Battery packs utilizing these energy accumulator materials have been designed, produced and tested which provide more than 14 hours of continuously transmitted power on a single charge to conventional hand-held cellular telephone devices. Similar improvements in conventional battery/energy storage capacity have been developed and are being tested for such devices as video camcorders, laptop and portable computers and other similar consumer, commercial, industrial and military applications.

IPMS research in the field of layered crystals has thus led to the creation of capacitors with a very high level of capacitance (measured in farads). This technology is based on a revolutionary production technique which forms polarized surfaces of one molecule thickness, separated by less than one atomic diameter of space, held together by weak Van der Waals energy forces. The special properties created by these layered crystalline structures provide previously unimaginable internal surface areas. Super capacitors are constructed of layered materials numbering more than one million dipole sheets for each millimeter of crystal thickness.

These devices provide a virtually limitless number of charge-discharge cycles at astonishingly rapid charge and discharge rates. The potential impact of such devices on all electronic equipment currently being produced is incalculable, since virtually all electronic devices rely extensively on the West’s state-of-the-art tantalum capacitance technologies.

At present, IPMS has on hand (among others) a super-capacitor roughly the size and dimension of a sandwich which develops more than 1,200 farads at 10,000 amperes. It also boasts production of a battery whose active mass energy density exceeds 850 watt-hours per kilogram. For the non-scientist (and all the rest of us as well)

this means that a 'battery' has been produced which, for the first time in history, produces more power per unit of mass than any fossil fuel ever devised.

Prototype testing of larger-scaled devices designed specifically for providing power to electric vehicles is currently underway. Prototypes are expected to be capable of sustained highway speeds of up to 70 miles per hour with a range of 525 miles on a single charge. The power plant for this application has been recently improved by the inclusion of a proprietary solid-state ceramic electric motor which weighs 7.2 kilograms and produces 100 horsepower on 12-volt direct current. For comparison, an electric vehicle employing a 100-horsepower electric motor performs the same as with a 500-horsepower gasoline engine.

Emtech LTD., Mississauga, Ontario, was commissioned to commercialize the IPMS crystal lattice battery and had applied for 11 patents. A set of conventional lead-acid batteries can propel a small electric car for 100 miles or so, require several hours to recharge, and weigh 1000 lb. An equivalent set of crystal lattice batteries is expected to weigh approximately 200 lb., provide a much greater range of up to possibly 200-300 miles, require 15 to 30 minutes to recharge, and maintain full voltage until 94% discharge. The battery operates well in the temperature range of -40 to +60 degrees centigrade.

The crystal lattice battery stores the charges in crystalline layers of a sheet-like material similar in appearance to mica. Due to nonlinear quantum mechanic effects, the electrical characteristic of each crystalline layer is that of a capacitor as thin as one molecule. Since capacitance is inversely proportional to thickness of the separation between layers, the practical consequence of the battery is to electrically function in a manner similar to that of a giant capacitor. A side benefit of these batteries is that they are made only of proprietary materials which are environmentally friendly, plentiful, and inexpensive.

If these performance attainments can be sustained in broad-based applications, electrically powered vehicles could be produced which would meet or exceed virtually all performance characteristics currently available in equipment relying on internal combustion, petroleum-based engines. Gasoline/diesel-powered transportation devices can be replaced by cleaner, more efficient and significantly less expensive alternatives.

Emtech LTD, which had the commercialization license, went bankrupt. Nu Omnicomm Technologies, Inc., of Salt Lake City, which has close ties to the I. N. Frantsevich Institute for Problems of Materials Science, may be able to revive the crystal lattice battery.

The world market for current energy storage applications which will be superseded by these energy storage technologies is estimated to be in excess of \$24 billion per year (1991), exclusive of electric vehicle considerations.

(Source: David G. Yurth, *The Anthropos Files: Tales of Quantum Physics from Another World – 2nd Edition*, 2007)

Electricity Generators for Satellites and Spacecrafts

Electricity for satellites and spacecrafts is often generated by photovoltaic cells converting sunlight into electricity. Spacecrafts destined for deep space such as the outer planets where sunlight is weak are usually powered by thermoelectric devices which convert thermal energy from radioactive substances such as plutonium into electricity.

The Russians have employed advanced solar photo-voltaic crystal lattice cells (see "IPMS Advanced Solar Photo-Voltaic Crystal Lattice Cells" below) for their satellites and spacecrafts. The crystalline lattice structure of these devices make it possible to simultaneously convert wavelengths of widely varying characteristics into

ionic flow or electrical current. The strategy employed by this revolutionary new material works across almost the entire spectrum of known wave lengths, from far out in the realm of extra-low frequency long wave lengths propagated by the original Big Bang all the way up through the visible light spectrum and beyond, into X-rays and ultra-high frequency, ultra-short wavelength wave forms associated with pulsars, quasars and quantum singularities.

“130 Electrical Energy Innovations” in www.padrak.com/vesperman includes some generators that may be appropriate for space. Their characteristics should include compactness, high power-to-weight ratio, immunity to harsh space conditions such as temperature extremes and radiation spikes from solar storms, no refueling, zero maintenance, and absolute reliability. Summaries of 26 candidate generators follow:

Larry Woods who designed a ‘magnetic vortex drive engine’ (see above) has also invented a ‘magnetic drive generator’. It is currently designed to produce 5 kilowatts. It is a small unit, about 3 feet cubed. The power source is magnetic with no other power source. It produces power through magnetic induction only. The coil used in this generator is a special toroidal coil generating 10 amperes per volt. These coils have only negligible voltage drop with applied load. As load increases the voltage remains the same and amperage rises. As amperage rises the magnetic field increases thereby decreasing the resistance of the conductor. These coils and magnetic drive generators will be available commercially by 2015

The I.N. Frantsevich Institute for Problems of Materials Science (IPMS), Kiev, Ukraine, developed free-standing thorium-232 isotope electricity generators. They can be scaled to power a single home and large enough to power whole communities. They also can operate for up to 300 years with no refueling and minimal maintenance. They pose absolutely no risk for critical melt-downs.

The Searl effect generator comprises of three concentric magnetic rings with magnetic rollers rolling around the rings. A 45 x 45-cm unit can generate an output of 11 kilowatts of free electrical power.

Based on ball lightning, safe, pollution-free colliding plasma toroids fusion generators could reliably generate electricity with capacities ranging from 10 kilowatts through 1000 megawatts. (See Gary Vesperman’s “Ball Lightning Fusion Reactors” at any of his three websites.)

AuroraTek, Inc., make and sell a self-charging electric bike which never needs to be recharged at an electrical outlet.

The WIN zero point electrical energy converter generates electricity by collecting electrons between E-dam cermet – drawing energy from the universal zero point energy field. Solid-state with no moving parts and no size restrictions, individual units could be built to power a 15-kilowatt home and even as large as a 20-megawatt arc furnace without outside energy input.

A Casimir-layered electrodynamic generator comprises of a Casimir array consisting of stacked CD-ROM type disks coated with alpha-emitter isotopic thin film, which have been super-compressed to provide room temperature super-conductivity. Controlled oscillation of the stack will produce ion flow which can be rectified and used.

Thin-film power generating disks are manufactured by combining an alpha-emitter isotope with a proprietary thin film applied to a disk superficially similar to a CD. The disk has been treated to produce a substrate with room-temperature super-conductive properties. The electrical function would be that of a self-recharging capacitor producing 2.25 volts DC at amperage that depends only on surface area. This generator would consume no fuel.

Kenneth R. Shoulders' nearly solid-state electrical energy converter may become an electric vehicle battery charger. Relatively small numbers of protons hitchhike rides on clusters of much larger numbers of electrons to bombard positively charged electrodes. It appears able to provide 1 kilowatt of thermal energy plus 1 kilowatt of electrical output per cubic inch.

The International Symposium on New Energy was held in the Denver Hilton South, Denver, CO April 25 - 28, 1996. Gary Vesperman's report on the symposium includes this regarding high-density charge clusters:

Don Reed's lecture on the Beltrami vector field was more enlightening than some of the other lectures on the ether theory. His explanation that the electron is really a nest of toroids, not a point charge as taught in physics classes, made some sense. I copied his vector calculus equations which he illustrated with computer-generated graphs.

Reed also stated that Maxwell's famous equations of electromagnetic theory are valid only at low electron charge density. Above a certain density, the Coulomb charge repulsion force between electrons is overcome by a strong attractive force. This explains how ball lightning can hold itself together. The attractive force also explains some of the basis for Ken Shoulders' high-density charge cluster device which reportedly has a gain of about 30.

Reed said that ball lightning can be observed by placing a 2-inch candle in a high-powered microwave oven.

(End of excerpt)

Clint Seward is the inventor of the colliding plasma toroids fusion reactor (see Gary Vesperman's "Ball Lightning Fusion Reactors" in his three websites) which also employs stable high-density toroids/clusters of electrons. His November 25, 2013 email includes this comment on Reed's physics research:

I find the discussion of the electron composition to be fascinating because I have thought that for some time. The mathematics of the toroid is so complex that few people work it, but a toroid of charged particles has significant properties people do not expect. I know this because I make these as needed.

(End of Seward's email)

With two antennas of very slightly different sizes, the converter of zero-point electromagnetic radiation to electrical energy collects zero-point electromagnetic radiation of two very slightly different frequencies. The converter then superimposes the two frequencies which results in a far lower beat frequency. The energy contained in the beat frequency is then transformed to practical electrical power which can be made available in any location on earth. Applications include transportation and heating as well as many others.

Nano-particulated alpha-emitter isotope materials are intercalated with conventional electrolytic materials in the presence of advanced anodic materials in a gel cell environment to produce self-recharging energy generating cells. The alpha-emitter thorium-232 increases the cell's energy density to more than 1500 watt-hours/kilogram – more than double the energy density of gasoline.

The ceramic electrodynamic wafer is manufactured when an alpha-emitter isotope is combined with a proprietary thin film to produce a homogeneous crystalline material on an inert substrate. When subjected to a continuous magnetic field flux, the ions emitted by the isotopic material can be collected and rectified to perform work functions. Its output is 2.25 volts DC @ 10 - 20 micro-amperes/cm².

The motionless electromagnetic generator with strong magnets, coils, nanocrystalline cores, and an electronic controller unit may (or may not) produce a net energy gain of 5.0.

The cosmic induction generator is apparently a fundamentally new important technology with many potential applications.

Frank Richardson's fuel-less electrical generator comprises of two pairs of electromagnets which warp a permanent bar magnet's magnetic fields back and forth across output field coils to induce a DC output voltage. With additional resonant circuit components, over-unity electrical energy conversion gain is achieved.

The radiant energy pump/electricity generator is like a radio receiver except that it generates usable power. It basically comprises of a large antenna connected to a complex series of high-voltage capacitors, transformers, and semiconductors. A 55-kilogram version could constantly produce 50 kilowatts of power for several days.

The Trombly-Farnsworth solid-state oscillating electromagnetic system is a solid-state resonant device which produces over fifty times greater electrical output than input power.

The 'atomic isotope generator', about the size of a washing machine, could electrify a 5,000-square foot house or building for over 100 years.

The key statement of Teruo Kawai's US Patent 5,436,518 for his "Motive Power Generating Device" is as follows: "Electric power of 19.55 watts was applied to the electromagnets at 17 volts and 1.15 amperes. ... an output of 62.16 watt was obtained." Dividing the output power by the input power yields a coefficient of performance of 3.19.

As electromagnetic energy is drawn out of the Casimir effect self-charging energy cell, when inserted in an electrical circuit, energy is drawn in from the surrounding ether.

John Hutchison's self-charged battery generates a perpetual DC voltage without external recharging. By stacking enough self-charged batteries into a single DC generator, the generator's DC voltage can be converted to regulated AC electricity and thereby silently electrify a satellite or spacecraft without fuel or emission of pollutants.

The solid-state 'endless electric field generator' produces a permanent electric voltage (analogous to a permanent magnet producing a permanent magnetic field) that does not break down and is resistant to short circuits. Its permanent electric voltage can sustain a constant current through a load. A postage stamp-sized device could endlessly output one watt of constant electrical power – enough to power a cell phone for twenty years or more. Satellites and spacecraft could be constantly powered without fuel and pollution.

Thin-film electrolytic cells have energy densities exceeding 250-400 watt-hours per kilogram. A 1-kilowatt cell in a satellite would have only 500 cubic centimeters of active electrode.

Direct energy conversion is a new high-performance, low-cost method of generating electrical energy that is possible using existing quantum physics principles and new materials. The device is solid-state and harnesses Type II superconductor technology to perform the same work function as a rotating armature

IPMS-Kiev and Arzamas-16 Super Magnets

The evolution of the Soviet view of the material world was reflected in the formulation of a new model of nonlinear quantum mechanics as an implicit function of consciousness. For instance, water is more than just H₂O. Experiments prove water can be affected in measurable ways by subtle influences such as music or whether a person's thoughts are hate-filled or life-enhancing. A more correct understanding of materials has thus enabled super magnets to be developed.

In conjunction with research jointly conducted at the highly secretive laboratories at Arzamas-16 in Khazakstan, IPMS-Kiev has developed a family of magnets with energy characteristics equal to or exceeding those of the best conventional iron-boron-neodymium types, but with the all-important feature that they operate with equal or greater efficiency at extremely high temperatures, up to 250 degrees centigrade. These magnets are so powerful that they have been successfully used to conduct extensive research in a perpetual zero gravity environment. All these experiments have been performed without the use of cryogenics.

(Source: David G. Yurth, *The Anthropos Files: Tales of Quantum Physics from Another World – 2nd Edition*, 2007)

Nevada-Based Russian Invention Incubator

Russia and its former Soviet Union partners such as Ukraine over the years deliberately built up and nurtured a large, highly productive scientific and engineering establishment. To illustrate, the I.N. Frantsevich Institute for Problems of Materials Science (IPMS), Kiev, Ukraine, from 1951 through 1991 secretly employed 6600 of the most brilliant theoretical physicists in the entire Soviet Union to work for nearly 50 years with complete freedom. They were able to develop whole new sciences, technologies and materials unknown in the West. They were told to ‘throw the book away’ and invent new materials. Torsion field communications project leader David G. Yurth, Ph.D., has strong personal ties to the IPMS. My compilation of 130 Electrical Energy Innovations, www.padrak.com/vesperman, includes descriptions of numerous advanced Russian inventions. Gary Vesperman has been in email contact with a few Russian scientists and inventors.

Unfortunately, Russia’s many talented inventors face daunting obstacles when attempting to commercialize their inventions. Russia’s 85% income tax discourages accumulation of private capital for investment. The Russian government’s favoring and subsidizing of military applications over commercial applications of inventions is another drain on venture capital. A dearth of trained and experienced managerial talent as a consequence of nearly a century of socialism is still another obstacle to Russian inventors seeking to manufacture and commercially market their inventions. The IPMS even does not have a single applications engineer with which to commercialize their extensive inventory of sometimes revolutionary technologies. Experienced entrepreneurs hardly need reminding that a commercially successful enterprise requires a business plan which makes sense and is doable, a product or service which is in demand, qualified people, enough money to sustain the enterprise until it is profitable, and integrity. If at least one of these five ingredients is inadequate, forget it.

Judging from the title of this chapter, it would initially appear that an incubator, perhaps based in Nevada with a satellite in Utah, is being proposed for helping Russian inventors commercialize their inventions. During a period spanning fall 1999 and winter 2000, there occurred in Henderson, Nevada an adventurous, perhaps some might say even daring attempt by Gary Vesperman and a team of half a dozen highly competent technical people, to help one Russian inventor commercialize his hydro-magnetic dynamo, a patented new electrical generator (see above).

Gary Vesperman considers torsion field communications potentially the third most valuable of all the inventions he knows about. Potentially the second most valuable invention seems to be the fuel-less, emission-free, operator and maintenance-free, large-scaled hydro-magnetic dynamo – *if it really works as its inventor claims*.

Analysis of the experience gained from working with this particular inventor, Russian physicist Oleg V. Gritskevitch, who knew very little English, has determined that what is really needed in addition to a typical invention incubator is an expanded support environment tailored specifically to the needs of Russian inventors.

Capitalizing on a foundation of strong ties to some of Russia and its former satellites' best scientists and inventors, it is suggested that a Nevada-based Russian invention incubator could build up a unique niche of incubating Russian inventors by offering an array of support services tailored to their needs. The Las Vegas area already is a robust melting pot of foreign-speaking visitors and residents. The extremely large Las Vegas convention industry offers a convenient opportunity for thinly capitalized startup companies to cheaply market specialized inventions when pertinent conventions are being held. Nevada's incubator of Russian inventions should include the following resources:

- An extensive research library of Russian scientific periodicals and books.
- A modest support staff of on and off-site Russian-speaking secretaries, typists, machinists, draftspersons, programmers, engineers, etc.
- Direct communication links with Russian scientific research institutes and engineering companies in partnership with the University of Nevada-Las Vegas.
- A local 'little Russia' colony comprising of the following:
 - One hotel identified as having among its employees a few Russian-speaking maids, desk people, etc.
 - One Russian restaurant staffed with a few Russian-speaking waiters and hosts and with menus in both Russian and English featuring mostly Russian recipes.
 - One apartment complex identified having among its staff a Russian-speaking manager and Russian-speaking custodians.
 - Local doctors, nurses, and dentists identified as being able to speak Russian. (My partners and I worried as to what to do in case Oleg got sick or injured.)
- A database of clearly identified miscellaneous support services such as Russian-speaking plumbers, electricians, beauticians, police, etc.
- Expert translation services.
- Access to large amounts of venture capital, one source of which can be seen on the Web site, <http://members.aa.net/~russia/capital/palcapital3.html>, of the "Russian Venture Capital Company of America". This Web site also has many details and tips to draw upon for setting up a successful incubator of Russian inventions.
- Experienced incorporators of Nevada corporations.
- Experienced business plan writers.

Familiarity with Russian inventions indicates that Russian inventors have accumulated a portfolio of significant and sometimes even astonishing inventions based on science that in some fields such as the torsion field has advanced ahead of Western science. Yet their potentially useful and in some instances lucrative inventions lie moribund because of Russia's severe shortage of investment capital and competent managers. Furthermore, many of Russia's inventors would be open to emigrating in order to escape the miseries of Russia's collapsing infrastructure.

Would the commercial potential of Russian inventions justify the extra cost of a Nevada incubator of Russian inventions? Oleg's patent attorney, who educated himself in the United States and then returned to his native Russia, maintains a web site of Russian inventions. I have read the list, although not recently, and some of them look technically very advanced and potentially of economic significance. The Russian patent attorney's list and a few other Russian inventions I know about appear to be the visible tip of a massive iceberg of mostly submerged Russian inventive genius. Oleg Gritskevitch himself has about 70 Russian patents. The chapter below titled "Making Exotic New Materials with Torsion Field" offers additional examples of advanced Russian/Ukrainian inventions that appear to be deserving of large-scaled commercialization.

In June 18, 2001 two energy researchers and Gary Vesperman got together for lunch and then toured the exhibits and poster area of an Institute of Electrical and Electronics Engineers, Inc., convention on pulsed power plasmas in the Las Vegas Rio Suite Hotel. 1200 scientists attended including many from China and

Russia. The technical fields covered by the convention were very advanced and included exploding wires, plasmas, high voltage, and hot fusion.

There were about a dozen companies exhibiting thyratrons, hot fusion equipment, high-voltage probes, high-voltage capacitors, etc. Gary Vesperman learned that Maxwell, which makes ultra-capacitors, is now part of General Atomics in San Diego. He collected literature on everything because he didn't know what not to get.

There were also several dozen papers posted. After one of Gary Vesperman's two friends left early, the other friend Ralph and Gary Vesperman spotted a posted Russian paper on stabilizing power generator frequencies with flywheels. Part of its lengthy title was something like "Stabilizer of Frequency in Power System with Flywheel". It has equations, graphs, photographs, etc.

During a telephone conversation the previous weekend, without paying much attention, Gary Vesperman thought he had heard something about what turned out to be a non-existent low-frequency oscillation problem with an inventor's pressurized vapor driven rotary engine. So he got the idea that the flywheel paper might be helpful in mitigating this 'problem'. He wrote down the email address of the paper's author, Philip G. Rutberg, assuming that it would be easy to send an email to the author requesting a copy.

More specifically, he had thought that Rutberg's paper might have something to say about optimizing the flywheel for the pressurized vapor driven rotary engine, if it already has a flywheel.

Without telling my friend at the time, there was another reason that Gary Vesperman had figured Rutberg's paper might be of interest to the energy research group he was involved with at the time.

Gary Vesperman had earned his BS Electrical Engineering degree at University of Wisconsin-Madison. In electrical engineering lab, we ran a really cool demonstration of a miniature power system. There were three electric motors with each motor turning a generator. The gensets were about two feet in diameter and about eight feet long.

What was unforgettable was the need to precisely synchronize a generator's phase angle and frequency with another generator's phase angle and frequency before hooking them together. It takes a fair amount of instrumentation to be able to make sufficient readings, etc. He vaguely remembers us students calling out readings to each other and making really sure that everything was in sync before closing a big switch to connect another genset.

Power system frequency stabilization was also interesting. The lab had some fairly large load banks. When more load was added to our little power system, the frequency would drop. Then more juice had to be added to the motors to bring the frequency back up.

In the power grid itself, we learned that the standard 60 hertz power frequency doesn't stay put, especially when large generators or loads go on or off-line. In order to keep clocks accurate, power generating facilities have to average over time the 60 hertz. (This seems straightforward. But he has wondered about the really massive power grids covering several states. Is the grid so interconnected that a generator in San Diego would always have to be EXACTLY in sync with a generator way up in Canada, for example?)

So Gary Vesperman had been aware ever since of the need for synchronization of power generating frequencies.

He thinks it was in an IEEE Spectrum magazine he had read where it's one thing for politicians to glibly talk about power deregulation, etc with little knowledge of the reality of running a power grid. It's a complicated enough job as is operating the power grid without overloading transmission lines, scheduling downtime of

generators for maintenance, etc. Up until recently, the power grid was a vertically integrated structure made easier to run because the power companies were regulated monopolies. The point of the article is that politicians need to cool it and think about the engineering and operating ramifications of breaking up the power grid – rather dangerously assuming that politicians are capable of thinking rationally!

So then Gary Vesperman called one of his two energy research friends Ralph and asked him to make some telephone calls in order to gauge the level of interest in Rutberg's flywheel paper. Then Gary got a call from his other energy researcher friend John. John volunteered anyway to go back to the Rio to find Rutberg's paper.

John spent 45 minutes unsuccessfully looking for that paper. Evidently Rutberg hadn't bothered to repost it. (The poster area comprised of about ten lines of bulletin boards, each line about ten boards long, enough space for posting maybe a couple of hundred papers. Gary had never seen anything like it before.) However, John did locate through the hotel's switchboard and talked with author Philip Rutberg himself. He then set up an appointment to meet Rutberg the next day, Wednesday afternoon, at 2 p.m. at the convention's registration desk.

Wednesday morning, John called Gary about the appointment. Gary then called Ralph. Gary explained to Ralph that he was also thinking in terms of learning more about power generation synchronization besides helping to fix what turned out to be a non-existent problem with the rotary engine. They chatted about phase-lock loops, etc. Ralph explained that if a generator is not in sync when the switch closes, a pulse is introduced into the grid which could result in overvoltage spikes, undervoltage dips, etc. It turned out Ralph couldn't go to the meeting with Rutberg due to prior commitments. John had to back out of the meeting also due to an emergency.

Rutberg's pleasant translator Irma found Gary standing by the registration desk at 2 p.m. as agreed by asking him if he is Gary. She then introduced me to "Professor Rutberg" and another Russian scientist.

To summarize their meeting, it turns out that there is a surprisingly high overlap between Gary's energy research and development group's projects and interests and the fields of scientific and engineering focus by Rutberg's research institute.

Philip G. Rutberg, Ph.D., Professor, Correspondent Member of the Russian Academy of Sciences, is Director, Institute of Problems of Electrophysics (IPE), Russian Academy of Sciences, Dvortsovaya embankment 18, St Petersburg, 40175084, Russia. (The Zip code is from Rutberg's business card. Web sites show Zip code 191065.) Telephone is 7-8123151757, and fax is 7-8123151757. Rutberg's email address is rutberg@iperas.spb.su.

Rutberg asked Gary "What's the question for him to answer which brought about our meeting." Gary explained that the original technical problem which brought about the meeting had been misunderstood. Gary then told the Russians that there are four reasons for meeting with them.

The first reason is to help verify the existence of Oleg Gritskevitch's hydro-magnetic dynamo. No luck there, but Gary would email Rutberg some dynamo literature. Before Gary emailed Rutberg about Oleg, he sent out emails about Oleg's dynamo to Armenia and Russia. Saturday evening, he sent about 40 emails to Armenia-related sites involving physics. He received one verification that an Armenian street address and some place names used in some correspondence between Oleg and Russian or Armenian officials were accurate.

The second reason is that Gary has been working on establishing an incubator of Russian inventions here in Las Vegas. He told them a little bit about the Russian invention incubator concept. He has been establishing contacts with different Russian scientific organizations who could provide potentially lucrative Russian inventions for the incubator to develop.

The third reason is that Gary vaguely stated that he is helping some companies develop some new products for which there are likely to be markets in Russia. Gary has been establishing possible Russian marketing outlets. In retrospect, it should seem that the institute's primary focus is on research, not marketing. However, they still may be able to provide contacts to Russian markets for energy products.

The fourth reason is that Rutberg's paper on stabilizing power generator frequencies with flywheels led Gary to think that it is possible that the companies that Gary is associated with could benefit from access to the institute's expertise. So Gary asked Rutberg to tell me something about his institute. As mentioned above, Gary has found a surprisingly high overlap between our company's interests and their interests.

Gary was told that The Institute of Problems of Electrophysics employs approximately 300 people. However, one IPE Web site, written perhaps in 1996, says "165 people are permanently employed at the institute, of whom 65 are scientific workers, 19 hold a Ph.D., 8 are doctors of science, 2 are member-corresp. of RAS, and 1 is an academician." Another Web site says "This institute employs 300 people including 100 scientists."

Gary was told that the institute's main areas of expertise are plasma physics, new methods of generating and transforming energy, physics, mathematics, stabilization of electrical networks, and new methods of destruction of waste. Gary asked if they also work with torsion fields, and they answered yes.

Gary subsequently entered "Institute of Problems of Electrophysics" into google.com. If anybody is interested, Web sites will turn up which will be descriptive of their interests, associations with other organizations, etc.

Combining Web sites, the institute's technical fields are the following

Environment / Remediation and Decontamination
Physics / Plasma Physics
Environment / Waste Disposal
Materials / Materials Synthesis and Processing

Main departments

Main laboratories of the institute:

- systems of electric power supply;
- electrical-mechanical transducers;
- plasma-dynamic systems;
- pulse systems;
- plasma-electrical systems

The Institute of Problems of Electrophysics of the Russian Academy of Sciences (IPE RAS) carries out a wide range of fundamental and applied scientific research work in the following main fields:

- physics of powerful high and super-high pressure pulse discharges and fundamental research into super-speed acceleration;
- fundamental research into electric arc processes in dense plasma generators, creation of different types dense plasma generators and their energy supply systems;
- investigations in dense plasma use for plasma reactor creation to destroy toxic substances.
- fundamental research into pulse discharge electrophysical, biological and chemical properties in liquids;
- research in new types of power source construction, renewed, ecologically pure energetic systems, and those

of controlled velocity electric drive;

- research into special, high-revolution electric machines and independent power supply sources;
- investigations into the electro-dynamic generation of super-high pressure to study substance phase transformations.

Associated enterprises

The Institute maintains scientific relationships with many Russian and foreign research institutions, including: Ioffe Physical Technical Institute, Kurchatov Institute of Nuclear Energy, United Institute of High Temperatures (Russia), Lawrence Livermore National Laboratory, Los Alamos National Laboratory (USA), Ohio State University (USA), Scientific Utilization Inc. (USA), British Aerospace (UK), Folkecenter (Denmark), University of Pierre and Marie Curie (France), "Ettore Majorana" Centre for Scientific Culture (Italy), Nanjing University of Science and Technology (China), Korean Electrotechnology Research Institute (Korea), Russian-Israel Laboratory (Israel).

Specific tech areas

The Institute performs fundamental and applied work in the following fields:

- Research of electric-arc processes in dense plasma generators, the construction of different types of dense plasma generators and their electrical supply systems, application of dense plasmas, creation of plasma technologies to destroy highly toxic wastes.
- Research of the physics of powerful pulse discharges (currents up to 10 MA) in gases of high and super-high density (up to $n \sim 10^{21} - 10^{23}$ 1/cub.cm), hypervelocity acceleration and their impact with targets.
- Research of pulse discharges in liquids and their influence on biological objects and chemical impurities.
- Research of the electrodynamic generation of super-high pressure to investigate the phase transition of substances.

Research into the design and construction of new types of electrical supply systems, notably on the basis of powerful capacitance storage, fly-wheel generators and special high-rotation electrical machines.

The most essential scientific achievements of 1996 are principally new results of fundamental research into physical processes of strong current discharge in dense gas media (hydrogen, helium, nitrogen, argon and air) at the initial concentrations of normal atoms, equal to $10^{19} - 10^{22}$ 1/cub.cm and discharge current amplitudes - up to 2.5 MA, at current build-up velocity of up to $10^8 - 10^{12}$ A/s in the millisecond range of discharge duration.

The role of anode and cathode streams has been established in the formation of the arc channel of meg-ampere rate. Discharge channel temperature estimations have been accomplished. The existence of a principally new phenomenon of high near-electrode drops in the arcs of meg-ampere range in hydrogen has been confirmed. In hyper-velocity electric discharge mass accelerator research, the creation of a unique experimental test-bench has been completed. It enabled results to be attained, which are considered the best in world practice for such launchers (accelerated body velocity is 2 - 6.5 km/s, mass is 15.0 - 200.0 g).

A cycle of experiments was carried out with the electric discharge launcher (31 mm gauge) to determine the efficiency of electric energy arc conversion into kinetic energy of the accelerated bodies. The average value of conversion efficiency for bodies with a mass of 15 - 20g was equal to 8 - 10%, for bodies with a mass of 100g - 20%, for those of 250 g - 30% under significant elongation of the accelerated bodies.

Interaction investigations have been performed on multi-rod accelerated bodies with semi-infinite obstacles of different density. Questions have been resolved on the mechanical stability of accelerated bodies of complicated construction, during their acceleration, and on air-dynamic stabilization.

Work on the creation and research of pulse power sources was continued, based on unique E7-25 energy capacitance storage with discharge current magnitude of up to 10 MA and pulse duration of up to 100 microseconds. Due to the correlation of these two parameters, this energy storage surpasses all known analogues. Hardware and software for the storage control system have been created, providing operation start, according to the given time program. Experimental investigations of storage work have been executed under programmable discharge on constant load, electric arc and electric discharge launcher.

Work was accomplished on obtaining super-high pressures (5-10 GPa) at pressure pulse durations of about 100 microseconds, to study substance phase transformations (carbon, boron, nitride) on the basis of this store. A mathematical model has been elaborated and realized, and the scheme to obtain super-high pressures, based on massive liner compression, was chosen and validated.

Work was completed on the creation of a plasma generator with up to 1.0 MVA of power up to 0.1 kg/sec air flow rate, and a pressure level of 0.1 - 0.2 MPa, based on accomplished research work in the scientific field, known as "Investigation of electric arc processes in generators of dense plasma, the creation of different types of dense plasma generators and their electric supply systems".

Work was completed on the creation of a unique test-bench for research and testing of plasma generators with up to 1.0 MVA power. In the course of our investigations, we have managed to reach conditions with specific erosion magnitude of about $1E-6$ g/C, the first time this has been achieved in world practice for strong current AC arcs (I~100 - 800 A. It enables the creation of a plasma generator electrode unit with 1 MW of power of alternating current with an original life of about 100 hours.

Work continued on operation regime optimization. Powerful AC plasma generator power supply system schemes have been modified. Physical-technical requirement analysis and development have been carried out for systems of the AC plasma generator power supply. The concept of dynamic arc stability of a three-phase AC plasma generator has been introduced. Several prospective diagrams of power supply systems, based on saturation reactors and semi-conductor transducers, have been proposed. A test-bench was developed to research the electric machine power supply source of powerful AC plasma generators with regulated frequency (50 - 400 Hz).

Research and experimental work commenced on the creation of plasma reactors for toxic waste destruction, on the basis of the unique test-bench, to research and test powerful plasma generators. A complex plasma-chemistry facility for chlorine- and fluoride-containing organic substances, including toxic ones, has been designed and was installed for the first time in world practice. Powerful plasma generators of alternating current, designed and manufactured in the IPE RAS, are used in the facility as plasma supply sources.

A project has been developed for the use by the facility of plasma-chemical technology for dangerous toxic medical waste decontamination and annihilation, with productivity of up to 200 kg/hour. Separate elements and parts of this facility have been produced and are now being tested.

Experimental test-benches have been designed for investigation of electrophysical biological and chemical properties of pulse and pulse-periodic discharges in water. Data on plasma properties in the discharge column have been obtained. The properties of water, treated by discharge, have been studied. This type of water has been called biologically active. One of its properties is the phenomenon of long term sustenance of bactericidal properties (up to 1 year) after water treatment. Research work has commenced into the possible application of biologically active water in medicine. Equipment has been developed and produced to use the electric discharge method in industrial conditions.

A complex of work was carried out on the creation of compact electric-machine power sources for various purposes, mounted on transport facilities. Redeterminations, made on the basis of theoretical analysis, were included into planned calculations. This significantly improved the design quality.

This work was performed in close contact with Russian enterprises. Gasprom (Russia) and certain enterprises from the USA, Israel, China, Korea expressed an interest in the result of this work. Preliminary calculations showed that there was potential to improve technical-economical indexes of ГТЭ-1,500 by 40%.

A number of MW generators, with rotational speed of 6,000, 9,000, and 12,000 RPM, were jointly developed by the IPE RAS with LTGZ and joint-stock company "Electrosila" (St.Petersburg). Research work continues on flywheel autonomous electric-machine assemblies with up to 1,000 MW of power with a working duration of 1-5 sec. Work on the creation and integration of multi-purpose, regulated electric drives also continues.

The institute is involved in joint work with the University of Ohio (USA), British Aerospace (GB), the University of Nankeen (China), Livermore National Laboratory (USA), and the Korean Electrotechnology Research Institute (Korea). The institute also works jointly with SUI (USA), Folkesenter (Denmark), Russian-Israel Laboratory, the Technical University of Nankeen (China), and the Pier and Marie Curie (France) on the research and creation of plasma facilities, toxic waste destruction, the investigation of electrophysical processes appearing at pulse electric discharge in liquids and on the creation of facilities for water disinfection.

Scientific results are regularly reported to international conferences and symposiums. Papers are published in both foreign and domestic scientific journals.

165 people are permanently employed at the institute, of whom 65 are scientific workers, 19 hold a Ph.D., 8 are doctors of science, 2 are member-corresp. of RAS, and 1 is an academician.

(End)

(Note the statement "The most essential scientific achievements of 1996 ...".)

Site Visit to the Institute of Problems of Electrophysics, St. Petersburg, Russia. Contact is Professor Philip Rutberg. This institute employs 300 people including 100 scientists. The main institute is in St. Petersburg with test sites at a facility in the St. Petersburg suburb of Chovalova. This institute split from the Ioffe Physico-Technical Institute some years ago. Research is conducted in powerful electrical discharges (up to 15 MA) in plasmas and gas at high pressure and high density, as well as in liquid mixtures of argon, heavy metals and water. They produce alternating current-powered plasma generators.

New research directions include the use of high pulsed electric current to compress copper or aluminum liners at pressures up to 100,000 atmospheres for more than 20 microseconds. They are also developing power storage systems and switching systems.

http://www.icp.ac.ru/RAS_1724-1999/CD_PAH/ENG/STRUCT/ICT_MAIN.HTM (no longer works) listed the scientific centers of the Russian Academy of Sciences along with their Web sites.

Gary Vesperman was told by his energy research friend John June 23, 2001, that John has heard from Russians on two different occasions, one of which was on a cruise, that if it takes one year to get something done in the United States, it takes 20 years in Russia. The Russians will take five years to decide to study a project for five years, take five years to study the project, five years to do the project, and five years to report on the project (or something like that).

Gary suspects that for some engineering and work, the Russians may be cheaper than equivalent work in the United States.

Gary sees Rutberg's institute as available for competently finding, testing and evaluating certain classes of Russian inventions. Rutberg's Institute of Problems of Electrophysics seems like an appropriate Russian scientific research organization for American energy research companies and organizations with whom to become affiliated. He recalls they already have business relationships with several American universities and corporations.

From: Philip Rutberg <rutberg@iperas.spb.su>
To: gvesperman@hotmail.com
Subject : dynamo
Date : Wed, 22 Aug 2001 17:20:57 +0400 (MSD)

Dear Mr. Vesperman,

Please accept my apologies for the long delay of the answer. I have already returned to my office from a number of business trips. I received your materials about Gritskevitch's dynamo. If you have a business interest to this question, we can help you and analyse patent materials and publications and also check realization. After that we can give you an expert conclusion. This kind of work requires a lot of work because it is necessary to read many patents and review realized experimental installations, if they exist.

If you wish you can send an official proposal to our Institute of Problems of Electrophysics (IPE RAS) about conclusion of a treaty for performance of expert work. When we receive your proposal we will discuss cost of work and send you contract draft.

Prof. Philip Rutberg,
Director of IPE RAS

Googling "Institute of Problems of Electrophysics" reveals in
<http://www.istc.ru/istc/db/inst.nsf/wsu/i0001209?OpenDocument&lang=Eng>
that 12 years later Professor Rutberg is still their Director.

Introduction to the Torsion Field

Up until World War II, science books had a claim that airplanes would never be able to fly faster than sound. And that was true of propeller-driven airplanes; then along came rockets and jet engines. Now science books claim that nothing can move faster than the speed of light. Russian scientists have known for about 40 years that a torsion field can be generated by the *spin* of a mass. Russian astronomers have measured the speed of the torsion field emanating from a spinning star to be much more than a billion times faster than the speed of light.

For more than two decades the author of this intentionally comprehensive compilation of Space Travel Innovations, Gary Vesperman, has been accumulating knowledge of futuristic technologies and new scientific discoveries not commonly accepted by or even known to mainstream scientists. The author personally has had the pleasure to know some of the top scientists and inventors involved with what some people refer to as a largely unpublicized international 'underground' science research network. Disregarding the scientific dogma taught by academia and utilized by commercial enterprises, these people have chosen to follow their own independent paths of inquiry, experimenting, discovery and interpretation to whatever they consider may be genuine scientific truths.

Torsion field communications is arguably one of the more exotic and potentially valuable non-mainstream technologies. Torsion field communications is an immature communications medium that is perhaps at the stage of radio communications' development a century ago. At that early era of radio, practical user-friendly radio transmitters and receivers had not yet been developed for commercial sale. Amplitude modulation (AM) and frequency modulation (FM) channels, for example, eventually had to be precisely specified, standardized and allocated.

The theoretical maximum capacity of torsion field communications is apparently 40 billion channels of three-dimensional holographic television through the entire earth without attenuation faster than one billion times the speed of light. Torsion field communications, with components only the size of coins or less, may eventually displace all forms of electronic communications including telephones, television, radio, fiber optic cable, microwave, and communications satellites, plus the entire Internet backbone. Because the torsion field is non-electromagnetic, torsion field communication links would be immune to disruptions caused by unusually intense solar electromagnetic storms.

Torsion field communications research and development has been and still is conducted by a team of very smart engineers and physicists based in Salt Lake City, Utah and elsewhere led by David G. Yurth, Ph.D. Gary Vesperman's personal contribution is the invention of a major advance that comprises part of a patent application which describes a process that is hoped will eventually become the first fully functional bi-directional torsion field communications system.

The list of potential applications of the torsion field is surprisingly long and grows longer with time. Harmless torsion field cell phones would offer instant wideband communications with other torsion field cell phones anywhere on Planet Earth without dropouts. Other applications include revolutionary new propulsion systems, communications and remote monitoring devices, long-range sensors, astrophysical monitoring and metering devices, exotic new materials, geo-physical devices which can be calibrated to locate mineral deposits, water and subterranean structures; and photographic applications which are capable of imaging the interior of virtually any substance or structure without X-rays. Torsion field dental imagers would bypass the harmful effects of X-ray dental imagers.

The remainder of this compilation of space travel innovations is intended to be a repository/anthology of websites, writings, emails, etc of torsion field information. In most instances, the author, Gary Vesperman, is not able to personally take responsibility for the accuracy and validity of his descriptions; he is only copying and/or editing other people's reports.

Carlos Aliaga Uria's 9-minute video "ECOVBIOST: Seven Step Strategy for the Shareable Co-evolution with the Cosmos and the Biosphere" is linked at <http://www.youtube.com/watch?v=Es3kaDaVLTU>. He proposes in his seventh step implementing torsion field communications and torsion field school networks. The video includes a song "Torsion Love" that Carlos has composed.

What is the Torsion Field?

Everyone is familiar with electromagnetism, produced by charge, and gravity, produced by mass. A torsion field is produced by the *spin* of a mass, whether it is an electron or as large as a star, or a magnet being moved through another magnet's magnetic field.

Russian A.E. Akimov's EGS concept deals with three types of physical vacuum polarization. According to his concept, the physical vacuum can manifest as E-field, G-field, and S-field. The E-field stands for the Electromagnetic field, G-field is the Gravitational field, and S-field is indeed the torsion field (S stands for spinor). Each particle has three independent kinematic parameters: the charge, the mass, and the spin; and each

of these parameters is a source of a long-range field: the charge generates E-field, the mass generates G-field, and the spin generates S-field (the torsion field).

Electromagnetic fields such as light, radio, and magnetism are vector fields in that they possess both magnitude and direction of propagation. Gravitational fields are also vector fields with both magnitude and direction. Torsion fields are scalar; they only have the property of magnitude. Torsion fields operate independently of direction. They also have the extraordinary property of holographically operating throughout the *entire* Universe without respect to time nor distance.

If two magnets are moved past each other's magnetic field, or a mass is rotated, a torsion field is generated. Torsion fields do not propagate in a linear fashion like a photon or radio wave at the velocity of light. Torsion fields are transmitted in a non-linear, non-local holographic manner.

To illustrate, Russian astronomers have been able to determine the present location of some stars even though their actual light took several years to travel to Planet Earth. Of course, their light shows their locations at the time the light had left a long time ago. The astronomers are then able to detect the torsion field emitted by each star's angular momentum in its *present* true location. Most incredibly, it doesn't matter how far away is a star, even if millions of light-years distant. Their torsion field detectors are bought off-the-shelf from one of at least four Russian companies who make and sell torsion field generators and detectors. So therefore, when the two magnets were moved past each other, the torsion field they had generated after an immeasurably small fraction of a second has already left our solar system!

The author spent a couple of weeks March 2003 editing David G. Yurth's manuscript for his ground-breaking book "Seeing Past The Edge". Its 474 endnotes indicate his many years of extensive research in physics, consciousness, cosmology, etc. The following four paragraphs were copied (and slightly edited) from his book's Chapter 9 "The Torsion Field: Information Link to Infinity":

"More than 4,000 papers have been published by more than 150 teams of scientists over the past one hundred twenty years, describing what is the torsion field, what functions it performs, how it works, and where it is to be found.

State-of-the-art devices which have been created to operate in this field are becoming more prolific and sophisticated every day. Today, anyone can buy a 5th field generator from any of four sources in the former Soviet states. Their devices have been constructed, operated, tested, documented and patented. They propagate information into and retrieve information out of the torsion field.

The theoretical structure and functional dynamics of the physical vacuum and the role of the torsion field are becoming clearer every day. References are provided in the appendixes to more than 250 different papers, journals and books which describe many of the interesting features of the physical vacuum and the torsion field, including the research conducted by teams of scientists all over the world.

A lengthy list of attributes (see subchapter below titled "Torsion Field Attributes") has been experimentally identified which demonstrates that the torsion field operates holographically, without regard to time and distance. Its operations are characterized by a variety of behaviors which have been described conceptually, experimentally and mathematically as functions of spin polarity, angular momentum and weighted waveform vector velocities. For example, unlike electromagnetism, where analogous charges repel and opposite charges attract, in torsion fields spins polarized in the same direction attract, and spins polarized in the opposite direction repulse."

From: Alexander S. Konkretny <professor@narod.ru>
To: vman@skylink.net <vman@skylink.net>
Date: Friday, February 07, 2003 8:12 AM
Subject: Torsion fields.

Hi, Gary,

I was sure I had sent you my reply, but then found out I had not. This sometimes happens to me.

You asked me to comment on your paper. Well, it has some major inaccuracies. For instance, you write that "torsion fields come in at least three types". That is incorrect. You must have misinterpreted A.E. Akimov's EGS-concept dealing with three types of physical vacuum polarization. According to the concept, the physical vacuum can manifest as E-field, G-field, and S-field.

But those are not three types of a torsion field. E-field stands for the Electromagnetic field, G-field is the Gravitational field, and S-field is indeed the Torsion field (S stands for spinor). Each particle has three independent kinematic parameters: the charge, the mass, and the spin; and each of these parameters is a source of a long-range field: the charge generates E-field, the mass generates G-field, and the spin generates S-field (the Torsion field).

Akimov's is a heuristic phenomenological concept giving a schematic representation of the connection between the three fields. G.I. Shipov's Theory of the Physical Vacuum gives a more rigorous interpretation. He shows that our space is not Riemannian one, but that the geometry of our space is the geometry of absolute parallelism (first introduced by a famous mathematician R. Weitzenbock).

A.Einstein's General Relativity operates with four translational coordinates: x,y,z, ct. But any physical object (any matter) can also rotate; and we need rotational (angular) coordinates to describe the orientation of an object. Thus the geometry of the physical vacuum is ten-dimensional (it is described by four translational and six angular coordinates). The torsion of the geometry of absolute parallelism generates torsion fields. And when you write that the torsion research has been classified in the USSR for many years, that is also incorrect. It has been classified for just several years, until in 1991 Academician E.B.Aleksandrov made it all public, publicly condemning the research program headed by A.E. Akimov. Aleksandrov is now among the members of the Commission for the Struggle Against Pseudoscience.

AK

From: david <david@iomedics.com>
To: Gary Vesperman <vman@skylink.net>
Date: Friday, February 07, 2003 8:27 AM
Subject: RE: Torsion fields.

Good work. This is part of the equation – the notion that the geometry of the torsion field is ten dimensional is not correct – it is based on the flawed notion that E and G fields are primary, which they are not. As derivatives of single underlying causal field, the manifestations represented by E, G and S can be described in terms of just four dimensions – that is why Maxwell used quaternions instead of decaaternion differential equations. Whitaker validated this approach, and Lorentz screwed it up by using his transform to obfuscate the need for time-domain calculations and spinor-based tensors to calculate electro-dynamic constants.

Thanks,

Dave Yurth

Torsion Field Communications Prototype

The theoretical maximum capacity of torsion field communications is apparently 40 billion channels of three-dimensional holographic television at one billion times the speed of light through the entire earth without attenuation. (I have not seen the mathematics of the calculation behind '40 billion channels' – Gary Vesperman.) Torsion field communications, with components only the size of coins or less, may displace all forms of electronic communications including telephones, television, radio, fiber optic cable, and communications satellites, plus the entire Internet backbone.

Electromagnetic cell phones commonly used today reportedly harm people with ionizing electromagnetic radiation. In contrast torsion field cell phones would transmit/receive signals via totally harmless torsion fields.

A unique design has been developed for a counter-rotating torsion field generator based on a newly patented micro-solenoid technology, counter-rotating mono-polar magnetic plates, mono-chromatic standing wave lasers, and some scalar parallel processor technologies from the Swiss Institute of Technology in Zurich. A prototype has been built and then dismantled. The objective of building the prototype was to universally transmit information through the entire earth at many times the speed of light with a bandwidth wide enough to allow transmission of three-dimensional holographic video on 16.7 million separate channels.

The photograph below is of the prototype torsion field generator.



Prototype Torsion Field Generator

From: Gary Vesperman [<mailto:vman@skylink.net>]

Sent: Wednesday, January 15, 2003 2:06 PM

To: David G. Yurth

Subject: Send TF excerpts

(Deleted)

Do you really have a 'functional bi-directional TF communications system' ready to demonstrate? (I saw that in your Chapter 6.)

Gary

From: david <david@iomedics.com>
To: Gary Vesperman <vman@skylink.net>
Date: Wednesday, January 15, 2003 3:21 PM
Subject: RE: Send TF excerpts

Not any more – we had it up and running in the lab but had to dismantle it and move the pieces...I am not certain now where everything is, but given some resources and a place to work, we could have it up and running again fairly short order. We can talk about how we know it's working properly when you and I talk.

I'll send the new chapters later this afternoon or in the morning.

Dave

Photographs and a schematic of a prototype torsion field generator are viewable in David Yurth's PowerPoint presentation "Torsion Fields and Communications" in www.padrak.com/vesperman.

Status of Torsion Field Communications

From: David Yurth <davidyurth@comcast.net>
To: Gary Vesperman <garyvesperman@yahoo.com>
Subject: RE: Status of TF communications
Date: Fri, 19 Nov 2004 08:56:54 -0700

Good morning, Gary.

There are some important things you need to know about TF matters. You touched on some of them in your email.

The Russians demonstrated the viability of this means of communications in 1986 with their M-2 experiments [see Seeing Past the Edge references], in which they used a non-local field generator to send a Morse code signal through 22 kilometers of mountain into a steel reinforced underground silo. The results are published and available to anyone who wants to work hard enough to dig them out.

The Russian Academy of Sciences has launched a major, big-time campaign to squelch any further research into torsion fields and their applications. The point man is a former KGB officer named Alexander Konkretny. When I published my torsion field papers on an independent web site, Konkretny and his guys actually went to the trouble of creating a complete web site for the purpose of discrediting my work on the net. It's still there for anyone who wants to read through it. These guys are nasty and serious about keeping the weak away from this area of research.

More importantly, both Lazslo and Cook have described specific instances in which the government of the US has used some variation of TF communications devices in successful experimental systems in both the US and at sea. We know about their use of the toroidal, helical antenna array [essentially a non-local magnetic resonance antenna system] to communicate with submarines at great distances under water. Their results used to be published on the net but have been withdrawn and classified.

Several new patents have been awarded in the past five years to inventors of systems which are claimed to propagate radio frequency signals at superluminal rates. I have also referenced those in my Seeing Past the Edge manuscript, as you may recall. We have attempted to build the devices described in two of those patents and find them essentially useless.

Finally, you need to know that we have, indeed, developed a prototype of a torsion field send/receive system. Our preliminary results are promising because we have been able to perform some functions which are not possible with radio frequency signals. Nevertheless, there still remain some fundamental mysteries to be resolved. The most important of the issues yet to be adequately addressed is the one which is fundamentally prohibited by the standard model – the natural existence and fundamental nature of non-local field effects at all scales.

This is a concept which is very difficult for people to grasp, and it is the reason Tesla was able to develop a system which was capable of powering his automobile around New York for 18 months with no fuel [before his backers withdrew their support and destroyed his working files]. We think we know what this is all about - we THINK we do – but in the absence of any meaningful financial resources, the kind of basic research needed to thoroughly flesh out what is happening at the zero point, where field effects and other physical attributes originate, simply has not been possible – at least not in the private sector.

We know the military research labs are working feverishly to find out how to cut through some of these issues. Our only hope is that they are still so stuck in the confines of the Standard Model of physics that they simply can't see what's really happening. If they ever figure out how to use the torsion field to configure weapons systems, life on this planet will never survive it. Once those assholes develop a weapons system, they have to justify the expense by creating a pretext to use it.

Nevertheless, we have developed a viable prototype design. We have tested its components individually and are convinced that the integration can be calibrated to produce the effects we have been looking for. We have to be so very careful here, because the same dynamics which drive torsion field devices are the ones which have produced Hutchison's effects as well. So calibration, careful integration, thorough investigation, good science and engineering and a degree of luck are all needed to get this thing over the goal line.

My guess is that it will take upwards of two years and at least a couple million dollars of carefully managed capital, a room full of the right equipment and the best engineers we can find to make this really viable. As you very well know, producing an anomalous effect once can be fun and interesting, but it can also be an accident which is not repeatable. Pons and Fleischman proved that beyond a doubt and poisoned the well so thoroughly that few are willing to even look at that area of research any more. So we have to do really world class work to make this happen, and we have to have a capital partner who brings more than simply money to the table.

We can talk with your contact about this but let me caution you again – we cannot and must not tell anyone (1) how it works or (2) represent that we have taken the technology to a point at which it is a candidate for development funding. This project is still well below the threshold for any kind of applications engineering support. We still have to figure out how to embody the dynamics we have uncovered to produce a reproducible, consistently workable effect which is thoroughly and carefully documented before we can go where venture capital guys want to go. And we are not there yet, by a very long margin.

Let me know what you think the schedule is. And have a great Thanksgiving.

Dave

Note David Yurth's reference to the US Navy's experiments with using the torsion field to communicate with submarines. The Navy built during the late 1960's an Extremely Low-Frequency (ELF) transmitter near Clam Lake, Wisconsin to allow communication with submarines to fire their ballistic missiles at those dastardly Russian commies when our US President pushes his Doomsday button. (My father happened to write his master's thesis in Science Education for Superior State University on the controversy surrounding the ELF transmitter.) I read some time ago that the ELF transmitter is now being dismantled. Dismantling the ELF transmitter ought to indicate that the Navy's torsion field communications experiments have been successful!
Gary Vesperman

The pilotless drones over Afghanistan, Yemen, etc are remotely controlled from an Air Force Station at Indian Springs about 20 miles NW of Las Vegas. It was pointed out to me some years ago that it takes two satellite hops to communicate with the drones – 23,000 miles up and down twice. That adds up to over a half-second delay – apparently not tolerable when instantaneous control is required in some drone controlling situations. Again, is torsion field communications being utilized by the US military?

Torsion Fields Models

A.E. Akimov & V. Ya. Tarasenko, "Models of Polarized States of the Physical Vacuum and Torsion Fields," translated from *Izvestiya Vysshikh Uchebnykh Zavedenii, Fizika*, no 3, pp 13-23, March 1992. c1992, Plenum Publishing Corp.

AUTHORS' ABSTRACT

A model is proposed of the physical vacuum, taking into account the existence of fields generated by classical spins or angular momenta of rotation.

Here are some important excerpts from the translation:

"The papers of the Soviet astrophysicist Kozyrev allow one to assume that the actions of objects possessing rotational momentum are propagated with a speed incommensurably larger than the speed of light."

"We will consider the physical vacuum as a material medium consisting of elements formed by pairs of particles and antiparticles (according to PI Dirac, electron-positron pairs). The now classical experiments on the annihilation of particles and antiparticles can be considered as a demonstration of the process of creation of elements of the physical vacuum, and the experiments on the creation of pairs of particles and antiparticles by streams of γ -quanta of definite energies as the process of destruction of the elements of the physical vacuum. Such an approach in contemporary theory is interpreted otherwise...."

"Let us yet again formulate the problem. Assuming that the elements of the physical vacuum consist of particles and antiparticles, it is necessary to determine which conditions the particles-antiparticle system must satisfy, starting from a unique requirement – the fact of unobservability of the physical vacuum in the unperturbed state..."

"We will call a system of particles and antiparticles possessing the indicated properties a fiton (Fig. 1). A dense packing of fitons will then form a medium, which we will call the physical vacuum (Fig 2). Let us again emphasize that in the approach laid out we obtain a convenient simple model, although differing from contemporary representations, of the physical vacuum..."

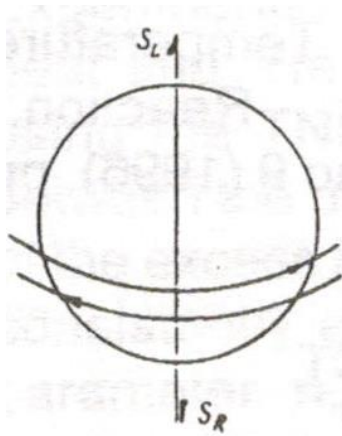


Fig. 1

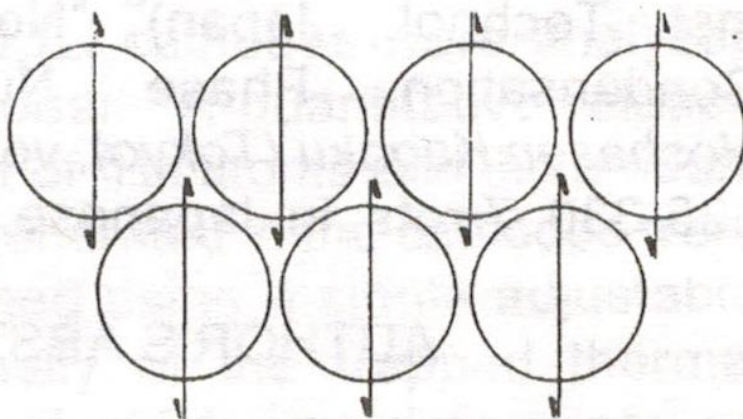


Fig. 2

As a result, in some space surrounding the source of perturbation the physical vacuum will be in a state of spin transverse polarization. This polarization state of the physical vacuum in its physical sense could be called the spin-field (S-Field). The spatial orientation of the static spin field is presented in Fig 6. Following Cartan and Dirac, S-fields are interpreted as long-range spinors..."

"In the framework of models under consideration all three fields – electromagnetic, gravitational and torsion (E,G,S) – can be considered as different 'phase' states of one medium – the physical vacuum. From his position the ESG-fields are true."

"Considering that the torsion and gravitation fields in the constructed model have a spin nature, one can expect that these fields can possess similar properties and essentially differ from the electromagnetic field. Actually, experiments show that torsion fields, as well as gravitational, are not screened by natural media..."

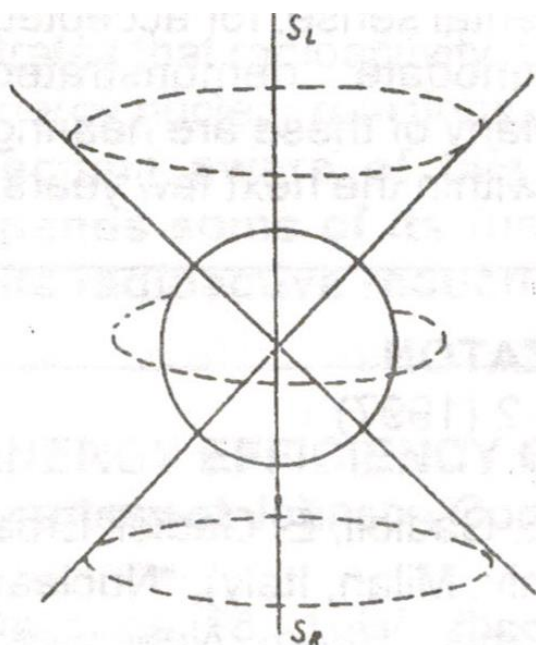


Fig. 6

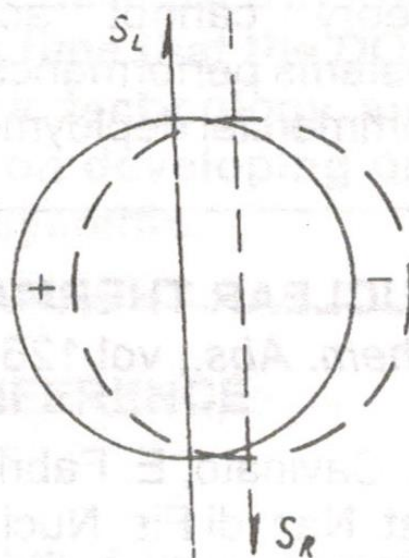


Fig. 8

"Since the charge polarization leads simultaneously from the charge to spin nonequilibrium, (Fig 8), then always when an electrostatic field arises, in the entire space where the electrostatic field appears, a torsion field automatically arises. Electrostatic fields without a torsion field do not exist. In this manner, the sources of Space Travel Innovations

electrostatic or electromagnetic fields are the second class of sources of torsion fields. In the conceptual plan, the deduction that torsion fields always accompany the appearance of electromagnetism is extremely important for a large number of fundamental and applied problems...”

“On the qualitative level one can indicate the analogue of this phenomenon in electromagnetism. The residual magnetism on a magneto-susceptible sheet of metal in a domain where a magnet laid on this place, forms a metastable magnetic phantom, for which with the help of a magnetic probe the spatial characteristics of the residual magnetism (magnetic phantom) can be measured, according to which it is possible to make specific deductions regarding the absent magnet...”

“The main deduction from the considered positions consists first of all in the fact that the base of the four interactions is completed by the fifth interaction. Consequences of this situation are evident and do not require commentary. Experiments with the use of the developed torsion generator, including the technological nature in the domain of connection, material sciences, medicine, and other areas, testify to the serious reality in scientific and technical spheres generated by the new concepts of torsion fields...”

Source: New Energy News, October 1997, pp 8-9.

Making Exotic New Materials with Torsion Field

Approximately half way through the list comprising the subchapter below titled “Torsion Field Attributes”, we find the following attribute:

“As a torsion field is generated by the classical spin of a magnetic plate, we can observe and measure the precise effects of the alteration of spin state of the object or system which is encompassed by it. At the Institute for Problems of Materials Science (IPMS) in Kiev, scientists have for more than 25 years used torsion field generators as an essential component of the apparatus used to manufacture exceedingly exotic materials, for which we have no comparable products in the West. These include mono-molecular powdered metals, solid-state energy accumulators and certain varieties of atomically engineered carbon.”

One of the subchapter’s footnotes states: “IPMS has also perfected the use of a specially modulated torsion field device to manufacture mono-molecular powders of strategic metals. Using this revolutionary manufacturing method, metals can be stored in conventional glass containers without involuntarily generating static electricity.”

From : David Yurth <davidyurth@comcast.net>

Sent : Thursday, May 20, 2004 10:23 AM

To : Gary Vesperman <gvesperman@hotmail.com>

Subject : FW: music in the room - Ed Delvers, man of science would change energy simply spinning a ball

Gary:

Here is my response to David Crockett Williams' note. FYI

Dave

From: David Yurth [mailto:davidyurth@comcast.net]

Sent: Thursday, May 20, 2004 11:21 AM

To: David Crockett Williams

Subject: RE: music in the room - Ed Delvers, man of science would change energy by simply spinning a ball

Good Morning, David:

Long message but I'll give you the high hard one and see if we're on the same page. During the last fifteen years, I have read perhaps 4,000 studies, books and papers prepared by other researchers dealing with the subject of torsion and derivative field effects. When I began writing "Seeing Past The Edge" and "The Anthropos Files", I had a notion about how some of this works – after ten years of concentrated research and some serious experimental work, I believe we can make the following observations with some credibility.

Everything in the Cosmos is constituted of information at the primary scale. Absolutely everything. When the infolded implicate order described by Bohm operates on undifferentiated information according the simple, elegant rules which govern the way Nature works, this physical dimension manifests itself in terms of matter, energy, waveforms and field effects which we call 'reality'.

Operating as derivatives of the fundamental scalar potentials, ALL field effects are derivatives and all manifestations display their attributes in a way that is fundamentally consistent with the Law of Complementarity. Simply stated, in the context of torsion fields, wherever we find a local-linear field effect [gravitational force, electromagnetic fields, strong and weak nuclear forces] we must also find non-local/non-linear field effects, at all scales. Our experimental work and the research of those who have preceded us demonstrate conclusively that this is part of the universal dynamic which defines and governs natural behavior. The Standard Model of physics has always ignored this aspect of how Nature works.

In this context, torsion fields are nothing more nor less than the non-local/non-linear derivative field effects which satisfy the requirements of complementarity. Akimov and Shipov have got much of it quite right. What they have NOT got right is (1) the relationship of torsion field effects to local/linear field effects and (2) the relationship between fractal geometries which operate to define the form and structure of Minkowski 4-Space [L3 plus time] and the holographic nature of the Cosmos [at least the physical Universe as we know it] at all scales. The relationship between fractal geometries in the physical, local-linear domain, and the holographic aspects of the Universe, as non-local/non-linear field effects, holds the key to understanding the dynamics we have been unable to explain for so long.

One of the reasons modern science has had a terrible time dealing with this set of issues is because the mathematical expressions which describe the operating dynamics associated with gravitational forces are dead wrong. Akimov's countryman Anastasovski [and his partner Trevor Benson] pulled the rug out from under conventional gravitational formulations when they successfully demonstrated that gravitational force has nothing at all to do with mass. Nothing. Instead, what is now clear is that gravitational fields are propagated both locally and non-locally as a derivative manifestation of spinors, both at the sub-atomic and at the macrocosmic level. When the role of spinors is described in terms of geometricized mathematical formulations, which include corrections of the topological leveling imposed on quantum mechanics by the Lorenz transforms, it becomes inescapably clear that gravitational force is nothing more than a manifestation of the localized effects resulting from the perturbation of the Zero Point energy field by primary spinors.

E. Cartan began to understand this just as Einstein was emerging into prominence with his General Theory and his formulations of quantum mechanics. Cartan's failure to understand the importance and role of spinors and the imposition of the Lorenz transforms on Maxwell's Electrodynamics Quaternions, served to (1) deprive the standard model of any notion that underlying stress vectors which operate at the primary level to define the attributes of all derivative field effects, and (2) level the topology of all subsequent mathematical expressions in such a way that the underlying dynamics [e.g., time domain energetic oscillations in photons, perturbations of the Zero Point resulting in the Heavyside manifestations, scalar manifestations of non-local/non-linear field effects, etc.] were simply paved over. As a result, the current model of physics is so severely crippled that it cannot accommodate the phenomena which have been demonstrated by Akimov, Shipov and many, many others over the past 150 years.

The issue your message focuses on is the phenomenon of reduction of inertial mass as a function of gyroscopic oscillation [spinning things fall slower toward the center of the planet]. The mitigation of localized gravitation field effects by massive spinors can be explained when discussed in the context I have tried to describe. Gravitational force is a manifestation of scalar-level spinor behaviors. When a massive object [anything larger than a single atom, defined by classical Newtonian physics and Einstein's model as a massless point operating in a vacuum as it becomes contiguous to another such point, while spinning at a quantum rate] is spun to a quantum level, three things occur simultaneously:

(1) The spinning perturbs the Zero Point at a local address in such a way that the local address becomes highly ionized. This ionization is manifest by propagation of a non-linear but localized field effect and the liberation of photons and electrons. Since few in the West have ever developed a reliable means of measuring such things [principally because the phenomenon itself is specifically prohibited by the Standard Model of physics] we are left with relatively arcane means of detecting and measuring the attributes associated by such a field. More on this in a moment.

(2) The photons and electrons freed by this localized spinning instantly migrate to the outer edges of the localized scalar field effects envelope, thus polarizing the local address in L3. The work of Viktor Schauburger perfectly demonstrates this phenomenon. Moray King has attempted to explain this effect by suggesting that the spinning somehow propagates an electromagnetic field which is parallel to the local-linear gravitational B field, but this misses the point.

What is more correct, I believe, is to suggest that the liberation of photons and electrons created by angular momentum of the spinor reaches a critical point beyond which the localized manifestation of the gravitational effect is simply mitigated by definition. The foil lift bodies pictured in Infinite Energy magazine and demonstrated by Jean-Louis Nadeau on his website in France demonstrate how powerful this mitigating effect is.

(3) The entire envelope surrounding the localized spinor becomes polarized in a way that redefines what the Standard Model of physics has come to define as 'inertial mass' by altering the point of criticality which normally operates at the scalar potential. Bak's treatise on criticality in complex, open, self-organizing systems provides the simple, elegant insight into how this process works at all scales. The aggregation of fractally-generated derivative masses [which we see as 'physical objects' in L3] is forced to operate in a localized address when the entire aggregation [call it an object] is caused to spin as an assembly. This redefines the address [locale] in which the scalar derivative field effects are manifested relative to the larger field [defined by the larger address defined by the planet]. This is interpreted as a mitigation of the localized gravitational field effect exerted by the planet relative to the smaller, more finite field in which the spinor operates.

Experimental evidence clearly shows that when the ionization in the localized field reaches a critical, self-sustaining point [ala Bak et al], the spinning object 'moves' [manifests a vectored velocity both at the scalar level and through each successive scale, to include the entire object and a portion of the field effects range beyond the L3 bounds defining the object itself] in the direction opposite to the locus of the larger regolith force – that is, away from the center of the larger mass and towards a self-organized lower steady state. When the polarity of the ionization field can be defined by direct mitigation, the object can be caused to move away from the negatively polarized surface and in the direction of the positively polarized surface. This field effect has been used to support and optimize the operating characteristics of the B-2 Stealth bomber, for example, and other weapons systems developed by the military. It's a known phenomenon with a known set of attributes; so this is not a mystery.

Having said all this, let's move on to the issue of torsion fields. In my research and writings, I have made it clear that the torsion field [as it is called by Akimov, et al and referred to in the current literature] is simply the non-local, non-linear derivative field effect which operates at all scales, contemporaneous with the

manifestation of local-linear field effects. There are, in point of fact, no 'primary' field effects. That much of the myth must be dispensed with at the outset. All field effects are derivatives of the same scalar potential and all operate contemporaneously at all scales all the time, everywhere. Bak's work makes this conclusion absolutely inescapable.

So how do we create a controllable torsion field which can be empirically validated, quantified, replicated and demonstrated under independent trials with others? How do we harness such field effects to perform useful functions which advance the state of the art? I don't pretend to have all the answers, but I have some notions about it which I am happy to share with anyone who is interested in having the conversation. We have some tantalizing clues to work with, the results of excellent, impeccably documented experimental work conducted by others. Three pieces of work seem to have primary relevance to this discussion.

- (1) The CERN/Gisin non-local field effects experiments conducted in Geneva
- (2) The Phantom DNA Effect, as identified and verified by V. Poponin, et al
- (3) The accumulated experimental work described by Akimov, Shipov, et al

What this work tells us is this: Information propagated via the torsion field operates instantaneously without regard to time or space. It is holographic at all scales. Gisin's experimental verification of Bell's Uncertainty principle has been repeatedly validated to conduct information between separated electron-positron pairs at least 10 to nine times C (speed of light). Therefore, in the most real and present sense, C is not [and never has been] the upper limit to information propagation velocities. Einstein was mistaken, and the Standard Model (of physics) is wrong.

Next, it means that non-local/non-linear field effects are a part of the natural order. Each living cell propagates a non-linear/non-local field [a torsion field by definition] which manifests all the attributes of the scalar field effects described by Akimov and Tom Bearden. Poponin experimentally verified that the Phantom DNA Effect extends in $L3$ at a distance of at least one meter from the cell. He verified that such fields exert a profound organizing effect on the way biological systems become physical and operate in accordance with the requirements of complementarity. And, most usefully, such fields couple with certain carefully controlled frequencies and waveforms of laser light, to exert amplified effects ranging at least three orders of magnitude above the norm.

This work, as much as any other, gives us a huge insight into the way torsion fields operate. Not surprisingly, photons serve as the intermediating link between local/linear and non-local/non-linear field effects in Minkowski 4 space. Information contained in one aspect of physicality [local linear] can be detected, measured, modulated, input and extracted, amplified and in other ways exploited via the interference fringe attributes manifest in laser light. The Fermi-Pasta-Ulum Lattice [a way of expressing non-locality in terms of a third order derivative] provides a means by which such information can be identified and managed in the presence of a localized torsion field. The coupling constants between the laser photons and the torsion field are known, and the effects associated with the modulation of the field can be carefully measured and manipulated – this is what has been needed for us to conduct a carefully disciplined exploration of this phenomenon in the laboratory. And we've been using it to do some useful work.

Because the Soviet Academy of Sciences has known for more than 30 years how to create and manipulate torsion fields to perform useful work, the scientists and technicians at the I.N. Frantsevich Institute for Problems of Materials Science (IPMS) in Kiev, Ukraine have been able to create entirely new sciences, technologies and materials which are simply not known in the West. I have seen them, handled them, watched them being created, understand how they were engineered and worked for 15 years to find ways to commercialize them. That's what "The Anthropos Files" is all about. I'll give you an example that is illustrative and, I believe, compelling.

In 1992, I watched a demonstration conducted by two technicians from IPMS in the board room of the law firm of O'Melveny and Meiers in Newport Beach, California. They attached a piece of flat black material to a small clip suspended from a conventional chemistry lab test tube stand [single metal pole extending vertically from a cast iron base]. To the corners of this material they attached the leads from a conventional 9-volt battery, using small alligator clips, one attached at each corner. Within 20 seconds, the top surface of the tarot-card sized flat black card became covered with a layer of ice crystals. Within 30 seconds, a continuous cloud of frozen ice crystals [looking for all the world like the vapor which rolls out of a bucket of water when a piece of dry ice is dropped into it] began to pour off the upper surface of the suspended card and onto the top of the 20-foot long board room table. Within a minute, the cloud entirely covered the board table and was pouring off the edge of the table onto the laps of the people who were seated around the table watching this demonstration.

When the technician offered to allow someone to actually hold the 'card' in their hands, everyone who had seen a demonstration of the Peltier effect refused – in our materials science lexicon, Peltier materials get very cold on one surface but demonstrate compensating heat on the opposing side. So when the demonstrator disconnected the card and held it in his hand, everyone who thought they knew what was happening gasped. With a digital thermometer, the demonstrator measured the surface temperature of the opposing side of the card – it was 72 degrees F. The top surface of the card was -68 degrees F. It was extracting heat from the local address and dissipating it non-locally in the presence of a very small activating DC voltage field with sufficient efficiency to freeze free-standing CO₂ from the atmosphere.

In a different demonstration, IPMS scientists provided us with a material they referred to as an 'energy accumulator.' In their frame of reference, this material operated by capturing free electrons and warehousing them in energy wells defined by the upper and lower surfaces of a material they referred to as a 'one-dimensional' crystalline lattice. The lattice was made of atomically engineered carbon, intercalated with atoms of other materials, in a way that created a series of virtually mono-molecular carbon films which were folded back and forth on top of each other. When viewed under our electron microscope, this material looked like an endless field of egg-carton peaks and valleys. When the peaks from the lower layer were brought into contact with the peaks from the upper layer, a virtual energy well was created, within which electrons were reposed while waiting to be directed elsewhere. This solid-state energy accumulator device demonstrated an energy density 1.4 times greater than gasoline. INEEL's report showed output results varying from 840-1024 watt-hours per kilogram over extended tests.

When we submitted the six energy accumulator devices to INEEL and DARPA for examination and analysis, an important discovery was made. Scientists at INEEL weighed the battery containers [we sent six Diehard battery containers to IPMS because they had no containers to put their materials in] fully charged, they were significantly more massive than when they were fully discharged. Think about this carefully – this created a tremendous reaction from DARPA. The US government attempted to classify and confiscate these devices and would have succeeded except for the fact that our attorneys succeeded in disabusing them from this course of action by pointing out that this stuff belonged to another government-owned laboratory in a foreign country. The implications of this discovery are extremely important because this material, manufactured in the presence of precisely modulated torsion fields, proves that E does not equal MC^2 . Never did. In this instance, energy [as represented by nothing other than electrons sitting still within the crystalline lattice of a carbonized film] manifests itself as measurably massive while sitting at rest. Again, Einstein was mistaken, and the Standard Model (of physics) is wrong. In this case, E equals M with no velocity at all.

So where does all this leave us? It is useful and reasonable to suggest, in the context of this information, that the Standard Model falls far short of describing how Nature works at any scale because it fundamentally ignores salient facts and unreasonably distorts others. We know how to create torsion fields. We know how to modulate information into them and extract information from them. We know what they are, how they work and how to control and manipulate them. In my book manuscript "Seeing Past The Edge," I have distilled the

work of many others to create a description of what works and does not work in matters concerning torsion and the field effects which result from it.

I have been working off the grid for more than a decade to put this together, remaining largely anonymous by choice while preparing the ground work. It is now time for this information to find its way into the world so we can harness what we have learned to make the world a better place. I am dedicated to facilitating the evolution of this work until the day I pitch my tent before the Great Divide for the last time. I am interested in working with you and your associates to make this happen. The option is yours.

Thanks for getting back to me.
David G. Yurth

More on the Remarkable Potential of the Torsion Field

For more on the remarkable potential of the torsion field, see <http://www.ufodigest.com/news/0809/torsion-field-print.php> - the contents of which are copied below:

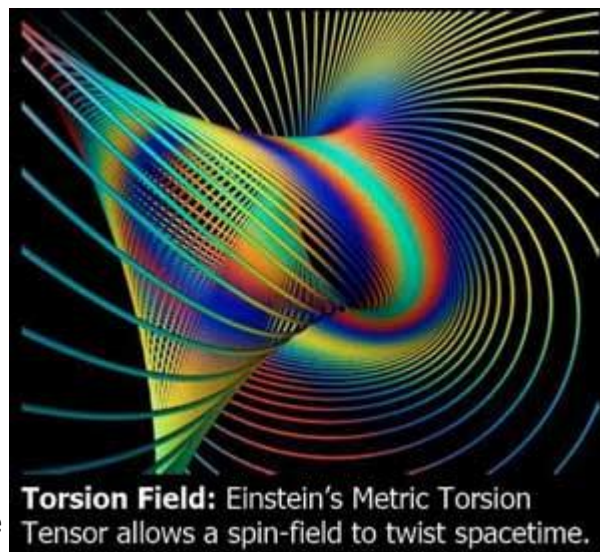
Our New Civilization Will Be Based on Torsion Field Technologies by [Ed Komarek](#) ✉

Posted: 12:00 August 19, 2009

Our global civilization for the past 200 years has been founded upon and based on conventional materials and electrical and magnetic technologies. Almost everything we use today is based on electrical circuits and magnetism. Our homes use electrical current and circuits for lighting, heating, cooking while our communication and transportation systems all rely on electrical and magnetic fields.

In the 1700s, back in the horse and buggy days, static electricity and lightning were anomalous strange and unusual unexplained phenomena. The people at the time had no idea that in a mere couple of hundred years, knowledge of these electrical phenomena would completely transform human civilization on earth.

People in ancient times also witnessed other strange and unusual anomalous phenomena associated with UFOs and extraterrestrials. Some of this knowledge was communicated first in pictographs on cave walls, then to clay vessels and later after the invention of writing into historical texts in clay and on paper. Still UFOs and extraterrestrials were misunderstood and an impossible enigma for mankind to unravel until recently.



But now in the past 60 years we are beginning to understand this extraterrestrial enigma and are beginning to realize that humanity has historic and genetic roots in other more technologically advanced civilizations with which we co-exist but are largely unaware. The reason we are unaware of these more advanced civilizations is that these civilizations are based on nanotechnology and torsion field technologies. The citizens of these civilizations choose to observe and interact with us using these technologies making them largely invisible to us.

For instance these civilizations seem to use time compression and other torsion technologies to place themselves in the technologically advantageous situation by speeding up their time in relation to our time. In a sense we are placed in stasis of very slow time in relation to their activities so as to almost be at a standstill in relation to them. In this manner their activities and actions are too quick for us to observe or to affect them. Its only when the extraterrestrial activity slows down for one reason or another that we can observe their activities.

Our civilization has now progressed to the point where we are becoming technologically advanced enough to begin to observe and understand anomalous aerial objects as spacecraft with real extraterrestrial occupants. We are beginning to understand the physics involved and how the propulsion systems of the craft operate. All this in turn leads us to begin to understand the technological basis of the civilizations that fly these spacecraft. I find it interesting that the Russians are much more willing to embrace torsion physics but even the American scientists are beginning to begrudgingly admit the existence of these fields as can be seen by this skeptical Wikipedia torsion entry. http://en.wikipedia.org/wiki/Torsion_field

It's now becoming clear to me that these extraterrestrial civilizations are based on torsion field physics just as our current civilization is based on electric and magnetic field physics. Torsion fields are just more advanced forms of electricity and magnetism and so these more advanced technological civilizations are just a quantum jump away from us in their technological development. <http://www.amasci.com/freenrg/tors/>

We are now standing on the threshold from which we may quickly move from where we now are to where they are in a very short period of time. This fact is scaring the daylights out of the more fearful among us who have in extreme secrecy and suppression obtained this information in advance of the rest of us. There are daunting challenges ahead that must be met and faced in an open and transparent manner not clouded by secrecy and deception.

The national security challenges of trying to control public and private introduction and access to these technologies are formidable. If misused and in the wrong hands these technologies can quickly and easily destroy our civilization. Yet if these technologies can be used and properly controlled, our civilization can quickly transform itself to an extraterrestrial civilization on par with some of the civilizations with whom we co-exist.

I find it interesting that the Russians are being much more forthcoming than the Americans as to torsion theory, research and the actual creation of working torsion generators and other devices. <http://amasci.com/freenrg/tors/tors.html> They are even now officially disclosing the existence of UFOs and extraterrestrials in the latest batch of declassified material. <http://hitsusa.com/blog/1092/russian-navy-ufo-encounters/> <http://www.ufoinfo.com/news/ruc.shtml> I wonder what's holding the Americans back. :-) Why do the Russians seem to be taking a less reactionary and more progressive public approach to torsion technological transformation than the Americans? <http://amasci.com/freenrg/tors/tors3.html>

My thinking is that we are going to have to have help in making this transition and so must seek out ethical advanced civilizations with a win-win approach to relationships. I

believe this process of sorting out of which civilizations would make favorable allies is already developing in secret and will quickly accelerate with disclosure. It's just going to take time and experience just as we individuals sort out which personal relationships are good for us and which are not.

There will be plenty of folks who will outline the challenges that lie ahead. I would therefore like to try to outline some of the benefits of a rapid transition to a more advanced civilization based on torsion technological principles. I think we need to embrace change rather than fear it. We need to ensure a balanced conversation in the years ahead.

I have been following developments in the "New Physics" for many years in a sporadic way. I have interfaced with Dr. Jack Sarfatti's Internet physics network since the mid 1990s where these developments have been discussed in a technical manner. My interest accelerated when I had many long phone discussions and email exchanges with scientist Ray Stanford who is sitting on a mountain of scientific data proving the existence of these torsion technologies in regards to anomalous aerial objects. This includes time compression effects that cause the craft to become transparent on film where the occupants of the craft can be observed in detail. <http://exopolitics.blogspot.com/2009/07/ray-stanford-part-1.html>

What had been holding me up in my understanding over the years was a word and a concept that would pull all these extraterrestrial technologies of this "New Physics" together. I think the terms torsion, or spin field physics, gives us this unified concept that I have been trying to find and understand as a layman.

I have recently been having email conversations with Richard Hoagland <http://www.enterprisemission.com/>. Richard tells me he has been on to Torsion Physics for over ten years and seems to be one of the few people in public besides Ray Stanford who realize that Torsion Physics forms the basis of extraterrestrial civilizations now interacting with us.

Richard says, "Enterprise has been investigating HD/Torsion Physics for over a decade. I have been discussing it almost nightly on Coast to Coast AM." We even have an extensive survey of the field – including our own work (up to 2007) – published in "Dark Mission, The Secret History of NASA," Chapter Two."

Richard Hoagland further states in an email to me in response to a rough draft of this article that I sent to him for comment. Richard says, "One last point: the 'black' world has been secretly using torsion-based physics and technologies for decades (how do you think their ships fly ..?); they simply do NOT want this physics and technology known or researched in the so-called, "white world"; in fact, one source specifically told me (about a year ago ...) that they "would rather lose a major American city to nuclear terrorism ... than give up this technology!" The relevance being, torsion physics can stop nuclear processes COLD ... and, from a remote distance – thus ELIMINATING any and all "nuclear threats."

This also applies, of course, to any incoming nuclear warheads ... N. Korean missiles ... terrorist cargo containers ... home-made bombs, etc., etc. Because of our confirmation of a laboratory source of torsion field energy, we can now test ALL these claims ourselves at Enterprise and are in the process of extensively testing the first bona fide Torsion Generator we have found, the implications are simply overwhelming. In other words, you haven't gone NEARLY far enough in the implications of the kind of planet we COULD have ... if 'they' wanted us to have it." " End quote.

Let me give some examples as to how torsion technologies may revolutionize society. Anybody studying the torsion literature can think up many more examples for

themselves. Remember folks I am just getting started researching the possibilities inherent in Torsion Physics with this my first article on this subject.

Today we use an electrical motor and a compressor to run freezers and refrigerators to preserve food, specimens and other things like genetic material. Freezing and refrigeration slows down bacterial processes that spoil food by lowering the temperature. A stasis chamber using a torsion generator would put the food or other material in a much slower time in relation to our time. Perhaps only seconds would elapse with the material in the chamber while days, months, years would have passed outside of the chamber. So the food or other material would stay fresh in relation to our time and our activities.

Think about how a stasis chamber and generator could be used in the medical profession. A traumatized individual at the scene of an accident or crime could be put in stasis for as long as necessary to get that person to the hospital and through surgery. Maybe a person could even be operated on while in stasis. If a kind of torsion technology is used to walk through walls or even fly craft through solid bedrock, then it might be possible to even operate on a person without cutting into the body. If today's technology can't handle the job then maybe the person could be kept in stasis until such technology is developed.

Such a thought then leads to time travel capabilities where a person is kept in stasis for ten, twenty, forty years and then brought back to regular time. In the future with life extension possibilities a person could even live for a very long time once they came back to standard time. This idea suggests the possibility that if large numbers of people decided to go into stasis for extended periods of time that might help solve the overpopulation problem.

How about transportation technologies? In a few decades we could be looking back at cars and airplanes like we think about horses and buggies. Atmospheric craft and spacecraft would be lifted and propelled by torsion propulsion systems around the globe and into the vastness of space. There would be no expensive infrastructure of roads and bridges to build and maintain and no environmentally damaging expensive fossil fuels to burn for propulsion. With less materials needed for infrastructure, and better and more efficient recycling of materials, there would be less need for mining of the earth.

How about trash disposal? That which was not recycled could be simply destroyed or decomposed by torsion field generators into manageable recycled products. How about creating new alloys, fabrics, composite materials through use of torsion fields? Think of the advancements in materials technology. Torsion fields and time compression can make normally opaque substances transparent so this would open up huge opportunities into seeing through normally opaque objects or even into the earth itself.

The greatest impact that torsion field generators may have on our civilization initially would be to make the environmentally destructive fossil fuels industry obsolete almost overnight. Torsion field generators would replace expensive polluting fossil fuels with cheap, efficient non-polluting energy and so free up huge economic resources for the feeding and housing of our ever expanding population. We could end global warming very quickly.

Communication technologies would make a quantum jump in range and speed making today's communications seem like that of the telegraph. Torsion Physics even begins to explain telepathy and even consciousness. <http://www.iclub.lv/telepathy/default.htm>

Torsion technologies can be truly be called the technology of the gods. We now have this technology within our grasp if we chose to embrace the technology constructively rather than destroy ourselves with it. If we are to handle this technology constructively

we must openly and transparently discuss and develop this technology. We must not allow this technology to fall into the hands of a secret autocratic elite to be used to control and enslave the rest of us.

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Is Holy Ghost's Influence Transmitted via Torsion Field?

Gary Vesperman

The Bible, Book of Mormon, and similar ancient sacred writings include numerous stories and claims that are not easy to explain on the basis of the perceived reality of humans. Yet modern scientific, historical, geological and archaeological researchers occasionally are able to deduce plausible theories and explanations for some of these strange reports. The following is my suggestion for the mechanism of one such ancient mystery:

The Church of Jesus Christ of Latter Day Saints publishes a book, Gospel Principles, which tries to explain the Bible and the LDS Church's own sacred texts such as the Doctrine and Covenants and Book of Mormon. The Gospel Principles has a chapter titled "The Holy Ghost" which has this remarkable claim: "The Holy Ghost is in one place but whose influence is felt *everywhere*." (Italics added.)

Early summer of 2003, some astronomers reported that the number of stars in our Universe, according to their observations and calculations, exceeds the number of grains of sand on all the world's beaches and deserts. For the Holy Ghost to be able to simultaneously monitor and influence human and possibly other human-like beings everywhere in the Universe clearly requires a medium of transmission altogether different from the relatively slow velocity of electromagnetic field propagation. My discussion focuses on transmission of the Holy Ghost's influence possibly via the torsion field. First we read the following article on the holographic Universe:

Creation – Holographic Universe

<http://crystalinks.com/holographic.html>

The Universe as a Hologram

- Author Unknown

In 1982 a remarkable event took place. At the University of Paris a research team led by physicist Alain Aspect performed what may turn out to be one of the most important experiments of the 20th century. You did not hear about it on the evening news. In fact, unless you are in the habit of reading scientific journals you probably have never even heard Aspect's name, though there are some who believe his discovery may change the face of science.

Aspect and his team discovered that under certain circumstances subatomic particles such as electrons are able to instantaneously communicate with each other regardless of the distance separating them. It doesn't matter whether they are 10 feet or 10 billion miles apart.

Somehow each particle always seems to know what the other is doing. The problem with this feat is that it violates Einstein's long-held tenet that no communication can travel faster than the speed of light. Since traveling faster than the speed of light is tantamount to breaking the time barrier, this daunting prospect has

caused some physicists to try to come up with elaborate ways to explain away Aspect's findings. But it has inspired others to offer even more radical explanations.

University of London physicist David Bohm, for example, believes Aspect's findings imply that objective reality does not exist, that despite its apparent solidity the Universe is at heart a phantasm, a gigantic and splendidly detailed hologram.

To understand why Bohm makes this startling assertion, one must first understand a little about holograms. A hologram is a three-dimensional photograph made with the aid of a laser.

To make a hologram, the object to be photographed is first bathed in the light of a laser beam. Then a second laser beam is bounced off the reflected light of the first and the resulting interference pattern (the area where the two laser beams commingle) is captured on film.

When the film is developed, it looks like a meaningless swirl of light and dark lines. But as soon as the developed film is illuminated by another laser beam, a three-dimensional image of the original object appears.

The three-dimensionality of such images is not the only remarkable characteristic of holograms. If a hologram of a rose is cut in half and then illuminated by a laser, each half will still be found to contain the entire image of the rose.

Indeed, even if the halves are divided again, each snippet of film will always be found to contain a smaller but intact version of the original image. Unlike normal photographs, every part of a hologram contains all the information possessed by the whole.

The 'whole in every part' nature of a hologram provides us with an entirely new way of understanding organization and order. For most of its history, Western science has labored under the bias that the best way to understand a physical phenomenon, whether a frog or an atom, is to dissect it and study its respective parts.

A hologram teaches us that some things in the Universe may not lend themselves to this approach. If we try to take apart something constructed holographically, we will not get the pieces of which it is made, we will only get smaller wholes.

This insight suggested to Bohm another way of understanding Aspect's discovery. Bohm believes the reason subatomic particles are able to remain in contact with one another regardless of the distance separating them is not because they are sending some sort of mysterious signal back and forth, but because their separateness is an illusion. He argues that at some deeper level of reality such particles are not individual entities, but are actually extensions of the same fundamental something.

To enable people to better visualize what he means, Bohm offers the following illustration:

Imagine an aquarium containing a fish. Imagine also that you are unable to see the aquarium directly and your knowledge about it and what it contains comes from two television cameras, one directed at the aquarium's front side and the other directed at its side.

As you stare at the two television monitors, you might assume that the fish on each of the screens are separate entities. After all, because the cameras are set at different angles, each of the images will be slightly different. But as you continue to watch the two fish, you will eventually become aware that there is a certain relationship between them.

When one turns, the other also makes a slightly different but corresponding turn; when one faces the front, the other always faces toward the side. If you remain unaware of the full scope of the situation, you might even conclude that the fish must be instantaneously communicating with one another, but this is clearly not the case.

This, says Bohm, is precisely what is going on between the subatomic particles in Aspect's experiment. According to Bohm, the apparent faster-than-light connection between subatomic particles is really telling us that there is a deeper level of reality we are not privy to, a more complex dimension beyond our own that is analogous to the aquarium. And, he adds, we view objects such as subatomic particles as separate from one another because we are seeing only a portion of their reality. Such particles are not separate 'parts', but facets of a deeper and more underlying unity that is ultimately as holographic and indivisible as the previously mentioned rose. And since everything in physical reality is comprised of these 'eidolons', the Universe is itself a projection, a hologram.

In addition to its phantomlike nature, such a Universe would possess other rather startling features. If the apparent separateness of subatomic particles is illusory, it means that at a deeper level of reality all things in the Universe are infinitely interconnected.

The electrons in a carbon atom in the human brain are connected to the subatomic particles that comprise every salmon that swims, every heart that beats, and every star that shimmers in the sky.

Everything interpenetrates everything, and although human nature may seek to categorize and pigeonhole and subdivide, the various phenomena of the Universe, all apportionments are of necessity artificial and all of nature is ultimately a seamless web.

In a holographic Universe, even time and space could no longer be viewed as fundamentals. Because concepts such as location break down in a Universe in which nothing is truly separate from anything else, time and three-dimensional space, like the images of the fish on the TV monitors, would also have to be viewed as projections of this deeper order.

At its deeper level reality is a sort of super hologram in which the past, present, and future all exist simultaneously. This suggests that given the proper tools it might even be possible to someday reach into the super holographic level of reality and pluck out scenes from the long-forgotten past.

What else the super hologram contains is an open-ended question. Allowing, for the sake of argument, that the super hologram is the matrix that has given birth to everything in our Universe, at the very least it contains every subatomic particle that has been or will be – every configuration of matter and energy that is possible, from snowflakes to quasars, from blue whales to gamma rays. It must be seen as a sort of cosmic storehouse of 'All That Is.'

Although Bohm concedes that we have no way of knowing what else might lie hidden in the super hologram, he does venture to say that we have no reason to assume it does not contain more. Or as he puts it, perhaps the super holographic level of reality is a 'mere stage' beyond which lies 'an infinity of further development'.

Bohm is not the only researcher who has found evidence that the Universe is a hologram. Working independently in the field of brain research, Stanford neurophysiologist Karl Pribram has also become persuaded of the holographic nature of reality.

Pribram was drawn to the holographic model by the puzzle of how and where memories are stored in the brain. For decades numerous studies have shown that rather than being confined to a specific location, memories are dispersed throughout the brain.

In a series of landmark experiments in the 1920s, brain scientist Karl Lashley found that no matter what portion of a rat's brain he removed he was unable to eradicate its memory of how to perform complex tasks it had learned prior to surgery. The only problem was that no one was able to come up with a mechanism that might explain this curious 'whole in every part' nature of memory storage.

Then in the 1960s Pribram encountered the concept of holography and realized he had found the explanation brain scientists had been looking for. Pribram believes memories are encoded not in neurons, or small groupings of neurons, but in patterns of nerve impulses that crisscross the entire brain in the same way that patterns of laser light interference crisscross the entire area of a piece of film containing a holographic image. In other words, Pribram believes the brain is itself a hologram.

Pribram's theory also explains how the human brain can store so many memories in so little space. It has been estimated that the human brain has the capacity to memorize something on the order of 10 billion bits of information during the average human lifetime (or roughly the same amount of information contained in five sets of the Encyclopedia Britannica).

Similarly, it has been discovered that in addition to their other capabilities, holograms possess an astounding capacity for information storage – simply by changing the angle at which the two lasers strike a piece of photographic film, it is possible to record many different images on the same surface. It has been demonstrated that one cubic centimeter of film can hold as many as 10 billion bits of information.

Our uncanny ability to quickly retrieve whatever information we need from the enormous store of our memories becomes more understandable if the brain functions according to holographic principles. If a friend asks you to tell him what comes to mind when he says the word 'zebra', you do not have to clumsily sort back through some gigantic and cerebral alphabetic file to arrive at an answer. Instead, associations like 'striped', 'horse like', and 'animal native to Africa' all pop into your head instantly.

Indeed, one of the most amazing things about the human thinking process is that every piece of information seems instantly cross-correlated with every other piece of information – another feature intrinsic to the hologram. Because every portion of a hologram is infinitely interconnected with every other portion, it is perhaps nature's supreme example of a cross-correlated system.

The storage of memory is not the only neurophysiological puzzle that becomes more tractable in light of Pribram's holographic model of the brain. Another is how the brain is able to translate the avalanche of frequencies it receives via the senses (light frequencies, sound frequencies, and so on) into the concrete world of our perceptions. Encoding and decoding frequencies is precisely what a hologram does best. Just as a hologram functions as a sort of lens, a translating device able to convert an apparently meaningless blur of frequencies into a coherent image, Pribram believes the brain also comprises a lens and uses holographic principles to mathematically convert the frequencies it receives through the senses into the inner world of our perceptions.

An impressive body of evidence suggests that the brain uses holographic principles to perform its operations. Pribram's theory, in fact, has gained increasing support among neurophysiologists.

Argentinean-Italian researcher Hugo Zucarelli recently extended the holographic model into the world of acoustic phenomena. Puzzled by the fact that humans can locate the source of sounds without moving their heads, even if they only possess hearing in one ear, Zucarelli discovered that holographic principles can explain this ability.

Zucarelli has also developed the technology of holophonic sound, a recording technique able to reproduce acoustic situations with an almost uncanny realism.

Pribram's belief that our brains mathematically construct 'hard' reality by relying on input from a frequency domain has also received a good deal of experimental support. It has been found that each of our senses is sensitive to a much broader range of frequencies than was previously suspected.

Researchers have discovered, for instance, that our visual systems are sensitive to sound frequencies, that our sense of smell is in part dependent on what are now called 'osmic frequencies', and that even the cells in our bodies are sensitive to a broad range of frequencies. Such findings suggest that it is only in the holographic domain of consciousness that such frequencies are sorted out and divided up into conventional perceptions.

But the most mind-boggling aspect of Pribram's holographic model of the brain is what happens when it is put together with Bohm's theory. For if the concreteness of the world is but a secondary reality and what is 'there' is actually a holographic blur of frequencies, and if the brain is also a hologram and only selects some of the frequencies out of this blur and mathematically transforms them into sensory perceptions, what becomes of objective reality?

Put quite simply, it ceases to exist. As the religions of the East have long upheld, the material world is Maya, an illusion, and although we may think we are physical beings moving through a physical world, this too is an illusion.

We are really 'receivers' floating through a kaleidoscopic sea of frequency, and what we extract from this sea and transmogrify into physical reality is but one channel from many extracted out of the super hologram.

This striking new picture of reality, the synthesis of Bohm and Pribram's views, has come to be called the holographic paradigm, and although many scientists have greeted it with skepticism, it has galvanized others. A small but growing group of researchers believe it may be the most accurate model of reality science has arrived at thus far. More than that, some believe it may solve some mysteries that have never before been explainable by science and even establish the paranormal as a part of nature.

Numerous researchers, including Bohm and Pribram, have noted that many para-psychological phenomena become much more understandable in terms of the holographic paradigm.

In a Universe in which individual brains are actually indivisible portions of the greater hologram and everything is infinitely interconnected, telepathy may merely be the accessing of the holographic level.

It is obviously much easier to understand how information can travel from the mind of individual 'A' to that of individual 'B' at a far distance point and helps to understand a number of unsolved puzzles in psychology. In particular, Grof feels the holographic paradigm offers a model for understanding many of the baffling phenomena experienced by individuals during altered states of consciousness.

In the 1950s, while conducting research into the beliefs of LSD as a psychotherapeutic tool, Grof had one female patient who suddenly became convinced she had assumed the identity of a female of a species of prehistoric reptile. During the course of her hallucination, she not only gave a richly detailed description of what it felt like to be encapsulated in such a form, but noted that the portion of the male of the species' anatomy was a patch of colored scales on the side of its head.

What was startling to Grof was that although the woman had no prior knowledge about such things, a conversation with a zoologist later confirmed that in certain species of reptiles colored areas on the head do indeed play an important role as triggers of sexual arousal.

The woman's experience was not unique. During the course of his research, Grof encountered examples of patients regressing and identifying with virtually every species on the evolutionary tree (research findings which helped influence the man-into-ape scene in the movie *Altered States*). Moreover, he found that such experiences frequently contained obscure zoological details which turned out to be accurate.

Regressions into the animal kingdom were not the only puzzling psychological phenomena Grof encountered. He also had patients who appeared to tap into some sort of collective or racial unconscious. Individuals with little or no education suddenly gave detailed descriptions of Zoroastrian funerary practices and scenes from Hindu mythology. In other categories of experience, individuals gave persuasive accounts of out-of-body journeys, of precognitive glimpses of the future, of regressions into apparent past-life incarnations.

In later research, Grof found the same range of phenomena manifested in therapy sessions which did not involve the use of drugs. Because the common element in such experiences appeared to be the transcending of an individual's consciousness beyond the usual boundaries of ego and/or limitations of space and time, Grof called such manifestations 'transpersonal experiences', and in the late '60s he helped found a branch of psychology called 'transpersonal psychology' devoted entirely to their study.

Although Grof's newly founded Association of Transpersonal Psychology garnered a rapidly growing group of like-minded professionals and has become a respected branch of psychology, for years neither Grof or any of his colleagues were able to offer a mechanism for explaining the bizarre psychological phenomena they were witnessing. But that has changed with the advent of the holographic paradigm.

As Grof recently noted, if the mind is actually part of a continuum, a labyrinth that is connected not only to every other mind that exists or has existed, but to every atom, organism, and region in the vastness of space and time itself, the fact that it is able to occasionally make forays into the labyrinth and have transpersonal experiences no longer seems so strange.

The holographic paradigm also has implications for so-called hard sciences like biology. Keith Floyd, a psychologist at Virginia Intermont College, has pointed out that if the concreteness of reality is but a holographic illusion, it would no longer be true to say the brain produces consciousness. Rather, it is consciousness that creates the appearance of the brain – as well as the body and everything else around us we interpret as physical.

Such a turnabout in the way we view biological structures has caused researchers to point out that medicine and our understanding of the healing process could also be transformed by the holographic paradigm. If the apparent physical structure of the body is but a holographic projection of consciousness, it becomes clear that each of us is much more responsible for our health than current medical wisdom allows. What we now view as miraculous remissions of disease may actually be due to changes in consciousness which in turn effect changes in the hologram of the body.

Similarly, controversial new healing techniques such as visualization may work so well because in the holographic domain of thought images are ultimately as real as 'reality'.

Even visions and experiences involving 'non-ordinary' reality become explainable under the holographic paradigm. In his book 'Gifts of Unknown Things,' biologist Lyall Watson describes his encounter with an Indonesian shaman woman who, by performing a ritual dance, was able to make an entire grove of trees instantly vanish into thin air. Watson relates that as he and another astonished onlooker continued to watch the woman, she caused the trees to reappear, then 'click' off again and on again several times in succession.

Although current scientific understanding is incapable of explaining such events, experiences like this become more tenable if 'hard' reality is only a holographic projection.

Perhaps we agree on what is 'there' or 'not there' because what we call consensus reality is formulated and ratified at the level of the human unconscious at which all minds are infinitely interconnected.

If this is true, it is the most profound implication of the holographic paradigm of all, for it means that experiences such as Watson's are not commonplace only because we have not programmed our minds with the beliefs that would make them so. In a holographic Universe there are no limits to the extent to which we can alter the fabric of reality.

What we perceive as reality is only a canvas waiting for us to draw upon it any picture we want. Anything is possible, from a magician bending spoons with the power of the mind to the phantasmagoric events experienced by Castaneda during his encounters with the Yaqui brujo don Juan. For magic is our birthright, no more or less miraculous than our ability to compute the reality we want when we are in our dreams.

Indeed, even our most fundamental notions about reality become suspect, for in a holographic Universe, as Pribram has pointed out, even random events would have to be seen as based on holographic principles and therefore determined. Synchronicities or meaningful coincidences suddenly make sense, and everything in reality would have to be seen as a metaphor, for even the most haphazard events would express some underlying symmetry.

Whether Bohm and Pribram's holographic paradigm becomes accepted in science or dies an ignoble death remains to be seen, but it is safe to say that it has already had an influence on the thinking of many scientists. And even if it is found that the holographic model does not provide the best explanation for the instantaneous communications that seem to be passing back and forth between subatomic particles, at the very least, as noted by Basil Hiley, a physicist at Birbeck College in London, Aspect's findings 'indicate that we must be prepared to consider radically new views of reality'.

(End of holographic Universe article.)

Gary Vesperman's compilation of "Advanced Technologies for Foreign Resort Project" which is in <http://www.padrak.com/vesperman> touches on several topics which do not appear to be in full accordance with mainstream science. His paper includes this gem:

"Reiki. I almost cured someone terminally ill with cancer doing this a couple of years ago. I had a feeling I should go back and try again with another session, but didn't because I didn't know him (he was a friend of a friend), and a few days later he died from a pulmonary blood clot. But he did make an immediate and impressive short-term recovery.

All I do is rub my hands together for a few seconds, close my eyes, mentally say to myself "The mind has no providence for limitations", open my eyes, and then lay my hands on the patient's problem area. If I can feel heat flowing through my hands, I know it is working. When the heat stops, I either quit or move to another area on the patient's body. I have cured elbow pain, headaches, and even my brother's shortness of breath for a short while.

Since 1989 when I learned Reiki, I have struggled to understand the underlying mechanism. I have repeatedly seen it work, but it is obvious Reiki's effects are hardly explainable by conventional science. Recently I finally picked up a clue from a French acupuncturist's report in www.keelynet.com/keely/belizal.text. The ancient Egyptians were able to correlate different wave forms with different geometric shapes. There is an implication that objects can store and transfer between them, when

touching, subtle forms of information. So possibly when an ill or injured person is touched by healthy people with positive minds, information is somehow transferred to be used for correcting damaged tissue.

Monarch butterflies are unique in that migratory information is passed from generation to generation. They are somehow able to fly north for the summer from their winter homes in Mexico and certain Central California coastal areas such as Monterey and Santa Cruz and then able to fly back to their winter homes, passing along precise migratory information from generation to generation.

It has been suggested that these butterflies' migratory information is somehow embedded in their genetic code. Another possibility is that their migratory information is accurately retained by their physical bodies in more subtle form, possibly in the halo that appears in Kirlian photography, as the Monarch butterflies reproduce again and again for thousands of generations with absolutely no loss of migratory information.

If true, an even more startling speculation arises: Many of the ancient peoples have acquired beliefs (colored by various religious symbols and rituals) that people don't just die and that's the end of them. Instead, the information and memories accumulated within each person as a result of genetic heritage and his or her living a life are retained in a very subtle form not normally perceivable by people still living. Their information/sensory packages are sometimes called 'spirits', 'ghosts', or 'souls'.

If the progression from Reiki healing and the association between waveforms and the shapes of objects to Monarch butterflies to a conscious being surviving the dying process is accepted, then perhaps we have physical evidence, however flimsy, of the existence of the soul."

(End of excerpt.)

At long last, thanks to Trevor Osborne's forwarding of the aforementioned article on the holographic Universe (all the way from Perth, Australia via the wonderful Internet), it is now clear to me that every phenomenon I had touched on, including Reiki healing, the migration of the Monarch butterflies, and INCLUDING THE SURVIVAL OF OUR MINDS AFTER DEATH AS MANIFESTED BY NUMEROUS REPORTS OF NEAR DEATH EXPERIENCES, seems to be explainable by the theory of the holographic Universe and the holographic mind.

I happen to be an almost consistently successful Reiki healer. I have healed headaches, people's colds, the aforementioned cancer case was a spectacular example, etc. I don't go out of my way to heal people and never charge for my 'services'. A few years ago, I was sitting in a bar in Salt Lake City with a friend who appeared to be uncomfortable. An inquiry revealed that he had back surgery some years ago. After a half-hour of my Reiki healing with my hands on his back, he was amazed to find himself feeling much less pain.

Some years ago I met a lady friend of a friend who had walked into a bar on crutches. I can't remember what was the matter with her knee. After an hour of holding her bad knee between my hands doing my Reiki mumbo-jumbo while we sat on bar stools and socialized, she walked out carrying her crutches! Even I was impressed.

February 2003 I met a man who had suffered chronic back pain for 20 years. After about 15 minutes or so of laying my hands on his lower back, he was delighted that his back pain was gone.

During a Mormon church conference September 21, 2003 I happened to sit next to a man, Robert ?, who had possibly fractured a finger playing football. For about an hour I held his injured finger between my hands (after of course mentally saying to myself "The mind has no providence for limitations."). He thanked me at the end of the conference for making his finger feel so much better. Interestingly, my hands felt quite hot at

the beginning indicating a powerful flow of healing energy from my body to his finger. After about ten minutes, my hands noticeably didn't feel so hot.

The holographic mind theory's projection of reality on other objects and people perhaps helps me to understand more clearly what is happening when I seem to heal people with the absurdly simple Reiki technique. I remember from reading a book on Reiki more than ten years ago that Jesus Christ also used some form of Reiki healing with exceptional success.

The holographic Universe theory seems to explain the extraordinarily high velocity of torsion field communications of many times faster than one billion times the speed of light. Instead of a generator transmitting a torsion field signal to a receiver as in the case of radio and television which operate with electromagnetic fields moving at the speed of light, the correct analogy is that of two televised images at different angles of the same fish in an aquarium.

Winter 2003 I edited David Yurth's manuscript "Seeing Past The Edge" which examines in detail many of the consequences of the holographic Universe theory. He also happens to be one of the developers of torsion field communications. Its 474 endnotes indicate his many years of extensive research.

The title of Chapter 9 is "The Torsion Field: Information Link to Infinity" (reproduced below). This chapter's findings seem to explain exactly how the Holy Ghost's influence is felt everywhere. The Universe and all its phenomena arise from a universal causal field which is referred to as consciousness. There can't be any question that consciousness is inseparable from the most fundamental aspects of the world we live in.

Plants have become regularly used as truth detectors in the Japanese criminal court system. Relations between nonliving liquid crystals and human consciousness have been documented. The attributes of consciousness become intrinsic to and inseparable from any model we can construct to describe how the world operates. Numerous carefully documented, often publicly repeated experimental results, demonstrate that nothing in this physical world operates without being effected at a fundamental level by consciousness.

Information contained in any single location in the Universe can be instantaneously obtained via the torsion field at any other remote location, regardless of the extent to which events are separated by time, space or distance. The Universe is an open, complex, quantum system, operating at all scales according to the dynamic forces that we have observed in both the microcosm and macrocosm. All phenomena in the Universe are viewed as manifestations of information.

One of my projects is tracking down the origin of the human species. I reject the theory of evolution because it has too many obvious flaws. All one has to do is look at a fellow human and notice a preponderance of intelligent design such as the hairless forehead and even exquisitely precise engineering characterized by eyes and ears. When I was a kid living in Wisconsin's north woods, I particularly noticed that the red mark on red-winged black birds couldn't possibly be the result of random evolution undirected by higher intelligence.

The cheetah is the only large animal found to be genetically identical based on DNA testing of 50 specimens. The cheetah may well be a relatively recently introduced new species. The speedy cheetah combines the features of cats and dogs – the only such animal on earth.

Genetic, linguistic, and geological evidence all independently indicate that a few humans were created as spectacularly engineered holographic manifestations of the underlying reality by superior intelligence and placed on Planet Earth 200,000 years ago.

The reference I have for the finding by geneticists that humans started 200,000 years ago is in <http://www.nexusmagazine.com/articles/darwinism.2.html>.

The reference I have for the independent conclusion by linguists that humans *also* began 200,000 years ago is in the Hammond Atlas of the World, by Hammond Incorporated 1995, ISBN 0-8437-1175-2, the chapter on Languages and Religions, page 22. The pertinent statement is "Some linguists theorize that all people – and all languages – are descended from a tiny population that lived in Africa some 200,000 years ago."

The reference I have for the independent similar conclusion by geologists is in Doug MacGougall's book "Frozen Earth; The Once and Future Story of Ice Ages" published 2004 by University of California Press, ISBN 0-520-23922-9, the chapter on Ice Ages, Climate, and Evolution, page 193. The pertinent statement is "Several species of *Homo* that we know about appeared and disappeared over the past 2.5 million years before *Homo Sapiens* finally arrived on the scene, probably between 100,000 and 200,000 years ago."

Next time you shop in a supermarket produce department, take a few minutes to appreciate the creativity that went into the genetic engineering of each of the types of fruits and vegetables. When I did that a couple of years ago, I was dazzled and overwhelmed by the variety and originality of their beautiful designs of texture, taste, color, etc. I profoundly admire the artistic and precise genetic engineering required to make delicious and nutritious figs, watermelons, oranges, apples, bananas, potatoes, celery, cauliflower, string beans, squash, corn, peas, dates, beans, artichokes, lettuce, tomatoes, okra, walnuts, peas, anise, parsnips, basil, garlic, onions, cucumbers, bell peppers, beets, carrots, turnips, pears, strawberries, blueberries, apricots, leeks, spinach, raspberries, jicama, blackberries, cantalopes, wheat, bullberries, etc. Structural engineers particularly admire the cleverly designed strength and rigidity of the otherwise flimsily thin-shelled walnut. My supermarket produce department shopping experience since then has never been quite the same.

The evidence presented in <http://escribe.com/science/keelynet/m15932.html> suggests that the moon is a hollow artificial satellite. My hypothesis is that the moon's interior is an enormous laboratory for engineering Planet Earth's millions of species of plants and animals.

Where is the entrance to the moon's interior? At this time, is there anyone home? How loud are the burglar alarms? (Am I kidding?) Are there any high-resolution photographs of the moon's surface which indicate artificial construction such as rectangular grids?

Ferrying new species of plants and animals from Earth's moon to Planet Earth and dropping them off into suitable habitats would require spaceships to protect them from the harsh environment of space. One other possible purpose of visiting unidentified flying objects from outer space, if UFO sighting reports are true, could simply be to occasionally census millions of species and to forecast species population trends, interactions, and balances.

It fascinates me to try to visualize those very first humans being created in a moon lab and then stepping off a spaceship onto the ground in an African jungle or meadow. They had to know what was going on. Did they arrive naked with no tools and no education and were told to figure out for themselves what to eat, how to avoid being eaten by lions, how to build a worldwide Internet, etc? Did they come with a spoken language already taught to them?

The chapter of my aforementioned compilation of advanced technologies titled "Ethereic Weather Engineering", copied below in the next chapter, includes this paragraph: "The weather control box is termed "passive" because it takes about a half-day for the weather to react in a large circle of several miles in radius as compared to the half-hour for several miles in radius of weather to react to the rotating metal objects. In the awesome demonstration of the weather control box I saw in the Midwest, an otherwise cloudless day went completely cloudy from horizon to horizon in about an hour, after a buildup of several hours in the morning. *I could even see lines or bands in the clouds that were possibly caused by the horizontal aluminum sidings of the garage inside of which the weather control box was located.* Then the magnets were reversed, and the

clouds had dissipated by the end of the afternoon. I was overwhelmed by seeing, for the first time, etheric weather engineering. It was simply magnificent.” (Italics added.)

Chapter 9 of Dr. Yurth’s Seeing Past The Edge manuscript, “The Torsion Field: Information Link to Infinity”, has a three-page listing of torsion field attributes (see subchapter below) including “Torsion fields cannot be screened by any known materials except aluminum, nor any known combination of materials or fields”. I saw the weather control box demonstration several years ago. But it wasn’t until I had edited Dr. Yurth’s manuscript and came across that aluminum blocks the torsion field did I understand why the aluminum sidings were causing cloud patterns in the sky.

I need a very attractive woman as a volunteer. Notice how she is so exquisitely designed. She can sing beautifully melodic songs. Her hair is neatly divided from a completely hairless forehead. Her eyes and ears operate with the highest engineered precision. If I squeeze and pinch her, she seems to be a solid female human, doesn’t she? No, she is not. She actually is a spectacularly engineered holographic manifestation of the underlying reality. She can heal other people by simply laying her hands on them. That is, her “mind has no providence for limitations”. She can see submarines in the ocean. She can read other people’s minds and past life history. She can predict the future. Her mind and senses are intimately connected with me, every one of you, everything else in the Universe, and with the Holy Ghost.

Finally, the holographic mind theory, as so thoroughly explained further and documented in Dr. Yurth’s unpublished book “Seeing Past The Edge”, offers two fundamental lessons for her as she goes about her daily life of the utmost importance: First, careful scientific research indicates that her mind and senses really will survive death as apparently proven by numerous anecdotal reports of near-death experiences. Second, her acts of kindness and unkindness to her fellow human beings, and perhaps even her pet animals and plants, will be remembered by them for all eternity.

(A public presentation of this topic can be enhanced by placing on a table two TV cameras, two TV monitors, and a square or rectangular aquarium containing just one fish.)

(What it is about aluminum, and only the element aluminum, that stops the torsion field is due to aluminum’s unique nano-scaled spin structures.)

Etheric Weather Engineering

(The following is a copy of the “Etheric Weather Engineering” chapter in Gary Vesperman’s compilation of "Advanced Technologies for Foreign Resort Project" which is in <http://www.padrak.com/vesperman> and <http://www.fortunecity.com/greenfield/bp/16/advantech.htm>.)

Etheric weather engineering is certainly one of the more spectacular products of the international “underground” science network. Unbelievable as it may seem, what looks like an ordinary tin can or handleless frying pan slowly being turned by an electric motor, in less than a half-hour, can cause heavy rain within 10 miles under conditions of high barometric pressure. (I have a video which shows about 20 demonstrations of etheric rain making.) I personally have seen etheric weather engineering effects at least twice in Las Vegas and twice in the Midwest.

So what is the secret of this crazy thing called ‘etheric weather engineering’? To begin understanding this most remarkable phenomenon, we first take a look at just what is the ‘ether’:

Sound comprises of oscillating waves traveling through water, air, and solid matter. Light propagates through space also as a wavelike phenomenon having frequency and wavelength. Over a century ago, some physicists

postulated that light is a form of electromagnetism which travels as an oscillating wave through a medium they termed 'ether'. The famous Morley-Michelson experiment around that time determined that the speed of light is constant. So therefore, it was thought, there can not be an ether.

Subsequently, physics was led on a wild goose chase. For example, the mathematics of Einstein's famous theories of relativity are mostly based on the assumption that the speed of light is constant. Astronomers commonly believe that the Universe started with a big bang and is still expanding because the speed of light is thought to be constant.

It has been claimed that the physics of electromagnetism and gravity as presently taught in academia has over 20 serious flaws. Actual measurements with modern instruments have shown that the speed of light varies with both direction and time. (Morley and Michelson erred in measuring the speed of light with both interferometers in the horizontal plane. They should have instead placed one interferometer in the horizontal plane, i.e., orthogonal to gravity, and the other interferometer in the vertical plane, i.e., parallel to gravity.) Actual measurements of the speed of light as it varies by as much as 5 miles per second over time show that the ether is not static but, as the earth travels through space, seems to surge and ebb with both time and orientation with respect to the stars.

Contemporary physics does not answer some of the fundamental questions of magnetism and gravity. For example, just how do magnets attract and repel? What is gravity? How can magnets under specialized conditions produce anti-gravity? What is inertia?

The consensus of some physicists is that two basic changes need to be made to the theory of physics. The speed of light is no longer to be assumed constant. The other change is that admitting the existence of the ether helps to explain many physical phenomena not otherwise satisfactorily explainable by conventional mainstream physics. For example, some physicists are now claiming that the earth's relatively weak gravitational 'pull' is actually the ether pushing objects such as the moon, satellites, and people into the shadow formed by the earth on the ether.

Etheric energy, also sometimes called 'zero point electromagnetic radiation' and 'vacuum field energy', is known as an energy that fills the fabric of all space. Technically, the etheric energy results from an electric flux which flows orthogonally to our perceived dimension or reality.

The energy density of the ether is essentially incomprehensible. The mass equivalence of etheric energy has been calculated by physicists to be on the order of 10^{95} grams per cubic centimeter using Einstein's famous equation $E = mc^2$. To put etheric energy density in perspective, Nobel Laureate Richard Feynman and one of Einstein's protégés, John Wheeler, have calculated that there is more than enough energy in the volume of an empty coffee cup to evaporate all the world's oceans! We fail to easily recognize this humongous energy field as it is analogous to trying to weigh a beaker of water deep underneath the ocean's surface.

Dan A. Davidson recently published a book "Shape Power: A Treatise on How Form Converts Universal Aether into Electromagnetic and Gravitic Forces and Related Discoveries in Gravitational Physics" reporting on his many years of measuring and studying the effects of the geometry of objects on the ether. In his book he explains how geometric forms, for example the famous "pyramid power", convert etheric energy into electromagnetic and gravitic forces.

Etheric weather engineering researchers not only claim but have demonstrated many times that precisely machined metal objects similar in shape to cones, tin cans, handle-less frying pans, etc., when slowly turned by an electric motor (but not simply rotated on the axis of their hollow interiors), bore holes in the ether and cause weather upsets and changes. Only by linking the enormously high energy density of the ether with

etheric hole boring can the disproportionately immense leverage of small objects upon the weather be understood.

The foregoing is referred to as 'active' etheric weather engineering. There is also a 'passive' version which generally comprises of a box about two feet high, wide, and deep. The tops, bottoms, and sides are about an inch or so thick and comprise of a thick layer of electrical insulation sandwiched between two thin layers of an electrically conductive material such as aluminum foil. Pieces of a wrecked RV camper's foam shell sometimes have been used.

Along the four inside edges around the bottom of the box are four magnets. Each magnet is placed in the center of each inside edge. To make rain, the polarities of the magnets are set one way, and to cause fair weather, the magnets are reversed. (I have actually seen this demonstrated in the Midwest.) On the center of the bottom of the box is set a truncated concrete cone about a foot high and a little over a half-foot in diameter. The concrete contains some special materials including mono-atomic gold and is sometimes wetted.

I stuck my head inside the box and could detect a faint mustiness. The experimenter thinks there is something like 20 megawatts of etheric power vertically streaming through the box.

The weather control box is termed 'passive' because it takes about a half-day for the weather to react in a large circle of several miles in radius as compared to the half-hour for several miles in radius of weather to react to the rotating metal objects. In the awesome demonstration of the weather control box I saw in the Midwest, an otherwise cloudless day went completely cloudy from horizon to horizon in about an hour, after a buildup of several hours in the morning. I could even see lines or bands in the clouds that were possibly caused by the horizontal aluminum sidings of the garage inside of which the weather control box was located. Then the magnets were reversed, and the clouds had dissipated by the end of the afternoon. I was overwhelmed by seeing, for the first time, jaw-dropping etheric weather engineering. It was simply magnificent.

It has been suggested that the precision of etheric weather engineering could possibly be increased by using both passive and active forms of etheric weather control in a mode of operation similar to alternately pressing the gas and brake pedals of a vehicle.

Some of America's Indian tribes were able to break up droughts by dancing counter-clockwise around a circle, or to stop rain by dancing clockwise around a circle. To illustrate, the summer of 1931 Nevada was suffering through a drought. An elderly Shoshone Indian, Wagon Jack, suggested to the tribal members living in the vicinity of Austin, Nevada that they devote some time to a rain dance. With considerable skepticism, Indians from all over central Nevada showed up beginning August 14 for continuous rain dancing plus of course feasting and political meetings. On August 19, the skies clouded over and rain began coming down in torrents. After four days of heavy rainfall, flooding caused extensive damage. (Nevada Historical Society)

I remember reading another story when during a severe two-year California drought during the mid-1970's, an environmental group in San Francisco just for fun decided to hold a rain dance in nearby Marin County. They had to cut it short because it started raining! Of course, I didn't understand then what was really happening and why.

Etheric weather engineering research Trevor James Constable has produced a video "Etheric Weather Engineering" on his weather engineering experiments. Thomas J. Brown has authored a book on etheric weather engineering titled "Loom of the Future: The Weather Engineering Work of Trevor James Constable".

It was reported in Brown's book that in September 1994, Hurricane Iniki was bearing down on Honolulu. Constable's ship happened to be located between the hurricane and Honolulu so he was able to divert Iniki. Unfortunately, the hurricane ended up damaging the island of Kauai instead.

Installing local etheric weather engineering capabilities, probably under contract to an etheric weather engineering researcher, should be a relatively trivial expense. One weather control machine or box should be able to cover the entire resort area. By being able to cause rain or sun on demand, the resort project could achieve a competitive advantage.

I do not know whether local weather control, set to sun, would be sufficient to break up a hurricane should one approach the resort complex. It is possible that weather control machines would have to be installed on ships or planes and located in the path of the hurricane such as happened with Iniki. Being able to break up or at least divert hurricanes should noticeably reduce insurance costs.

Three-Dimensional Holographic Torsion Field Television

From: Gary Vesperman [<mailto:vman@skylink.net>]

Sent: Wednesday, January 15, 2003 10:49 PM

To: David G. Yurth

Subject: Three-dimensional holographic video (?)

Dave,

It is impressive to be able to tell people that torsion field communications is theoretically able to transmit three-dimensional holographic video on 40 billion channels at a velocity up to a billion times faster than the speed of light right through the earth, etc.

I showed Janet the 3-inches thick manual I wrote for Ampex 1979-1981 on their sophisticated TV camera.

Have you ever given thought as to just how a holographic three-dimensional video camera could be constructed? And then how the holographic image could be portrayed at the receiver?

Gary

From: david <david@iomedics.com>

To: Gary Vesperman <vman@skylink.net>

Date: Thursday, January 16, 2003 9:45 AM

Subject: RE: Three-dimensional holographic video (?)

Indeed. We actually have a technology partner up in Vancouver, BC, who has begun development of a holographic image compression engine...it's really far out. But he's stuck. The issue is this – when you work with holograms as a communications medium, you are dealing with a local, linear display of non-local non-linear data. At this moment in time, we do not have a single truly non-linear, non-local mathematical expression to draw on to describe what non-local/non-linear really means or how it works. The closest we can come to this is the Ulam-Pasta-Fermi fourth-order derivative, which has been used to describe some of the attributes of the Nicolas Gisin/DNA Phantom Effect phenomena developed by V. Poponin.

So in order to do this as it should be done, we are faced with the requirement to add a whole new family of expressions to the lexicon of mathematical expressions. Maybe Larry Crowell and Myron Evans and Melehey and Santilli can help us with this. This is problematical because the Standard Model of physics is so severely crippled that it fails to recognize three fundamental aspects of nature:

(1) the failure of conventional quantum mechanical expressions to describe hadronic mechanics, which are still based on Galileo's dimensionless single point in space concept [this is what constitutes the basis of

quantum mechanics and is the principle reason quantum mechanics fails to accurately predict or describe sub-atomic dynamics];

(2) the essential nature of Quantum Calculus to describe energetic oscillation at all scales in the time domain [E.T. Whitaker's extrapolation of Maxwell's Electrodynamics Quaternions did this, but his work is ignored and is being systematically removed from web sites all over the planet]; and

(3) the fact that the Cosmos operates at all scales according to the law of complementarity – which means that at every scale, where local-linear field effects are in operation, non-local/non-linear field effects must also be operative.

This problem was created by Einstein's reliance on the Lorentz transform to Maxwell's quaternions, which eliminates expressions describing time domain energetic oscillation and introduces the asinine notion that the four local linear field effects we call gravity, electromagnetism and the strong and weak nuclear forces, are all primary forces. They are not primary – they are derivatives of an underlying system of tensors whose nature and dynamics are ignored by quantum mechanics. This is why non-local field effects as a natural manifestation of nature as it is are rejected by mainstream physicists. They have no idea in hell what it even means.

Accordingly, when we design-engineer a torsion field device of any kind, we are faced with the challenge of characterizing the nature of its operations using mathematical expressions which do not facilitate local-linear calibration. This is extremely important as a design consideration because if you agree with the notion of torsion fields as sub-quantum expressions of localized oscillations of quarks, then must also buy on to the notion that nothing is relative – this demands, a priori, that every location in space at the Planck constant, in L4 [width, length, height and time dimensions] are absolute, local and mappable. This is what is referred to as the Aether and the Zero Point Energy field. That is what Michelson and Gale experimentally proved the existence of in 1929, but by the time they had published this paper, the Einstein-Podolski-Rosen formulation of the gravitational constant and the Lorentz Transform of Maxwell's quaternions had already gained universal public acceptance. Einstein's partner Cartan formulated expressions to describe torsion, but Einstein succeeded in removing from the GTR...he had notion about the nature and behavior of sub-atomic spinors – and without that insight, there was no reason to throw that baby out with the bath water.

Since that time, nothing has been developed in mathematical expressions [with the possible exception of JS Bell's Inequality Theorem as it was experimentally verified by Aspect, Wheeler, Gisin and Poisson] in a way that enables us to actually model these phenomena. Without a mathematical model, how do we proceed to design a physical device? If we build one, how do we know what the hell it is doing or whether it actually works at all? And if, for some magical, spectacular, wonderful reason we stumble onto a localized combination of components which actually do propagate and receive information non-locally via a TF generator, how on earth do we design-engineer applications for it? See what I'm getting at?

So, yes, we have built some devices, just like Akimov et al. And yes, we have measured non-linear non-local fields, using Hall Effects sensors and Faraday cages and so on. And yes, we have counter-rotated mono-polar permanent magnet plates under control conditions to develop localized torsion fields. And yes, we have used magnetic resonance RF antenna devices to send and detect signals. And yes, we have used bastardized video-conferencing software and PC-type computers to process information and produce images and sound at through-put rates faster than C. And no, we have no idea in hell why it works or what to do to design engineer applications for it.

While these results are encouraging, and while the patent application and its claims and drawings pretend to know something categorical about the process, the fact of the matter is that we're doing what J. Chandra Bose and Marconi and Tesla all did with RF devices in the early days – we are using what we have to produce an

effect we believe demonstrates our notions, without having any real idea at all what the hell we are doing...and that's science as we know it. If it works, we use it. As we use it, we learn more about it. When we know enough about it to explain what does and how it works, then we engage in selective recall and claim we knew that all along.

So this is our starting point. And it's not a bad one – we could have come up empty altogether and be completely baffled. In any event, it will be more than interesting to put the pieces together in a lab which operates with impeccable discipline and integrity, instead of in my garage where anything can happen...and sometimes does. Hope it comes to pass. In the meantime, we'll keep our ears to the rails and do what we can to stay ahead of the curve.

Check you later.

Dave

The DNA Phantom Effect

(From <http://www.planetdeb.net/best/181.html>)

The Message From Water

Posted by Deb on May 18, 2000 at 11:35:48 from 206.169.248.144:

Excerpt From: Aloha News Publication

Spring 2000

Page 15

BOOK REVIEW by Serge Kahili King

We haven't done a book review for years, but this one is so remarkable that we're making an exception.

The book is *The Message From Water*, by Masaru Emoto, head of an international group doing research on subtle energies.

While considering that water comprises over 90% of the material of a fertilized ovum and that even as adults we are about 70% water, Emoto wondered about the effects of water on our health and well-being on a deeper level than just hydration.

One day he received the inspiration to examine the formation of crystals from water taken from various sources. He was mainly concerned with the state of water in Japan, but soon his research had international cooperation.

Emoto started out by setting up an unusual laboratory. It was essentially a refrigerator large enough to hold many samples of water as well as a desk, a microscope equipped with a camera, and a researcher. Since the laboratory had to be kept at a temperature below freezing, each researcher could only stay in it taking pictures for about a half hour at a time.

In his book, which is written in Japanese and English, he provides a large selection of photographs of water crystals from various sources and subjected to various conditions and treatments. The results are truly astounding.

Using crystals formed from distilled water as a base comparison, Emoto starts out by showing us photos of crystals from several rivers in Japan. The first shocking discovery was that very polluted water either has no

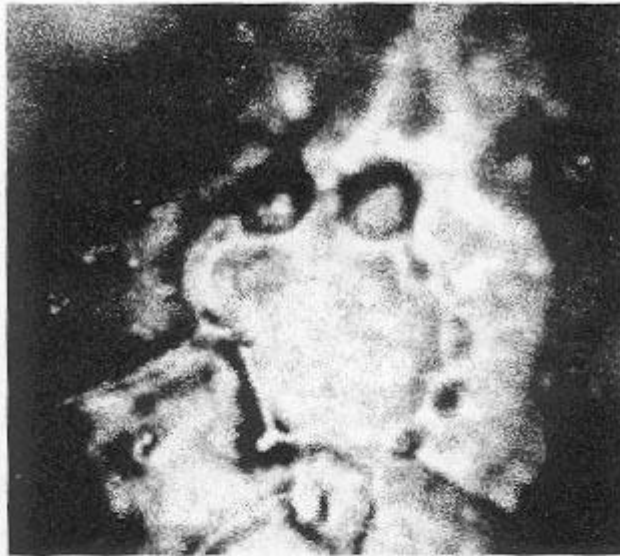
crystal structure when it is frozen or else the crystals are very distorted and partial. In contrast, photos from clear mountain streams are well-formed. Surprisingly, crystals from mystical or sacred places like Lourdes in France and Tenkawa (a river near a Shinto shrine where I once did a Hawaiian shaman ritual) are beautiful, but their centers are empty.

Later, there are before and after photos of frozen water subjected to heavy metal, classical and sad music, positive and negative printed words taped to the sides of sample bottles; and even positive and negative thoughts. The results of that are about what you would expect if you know Huna.

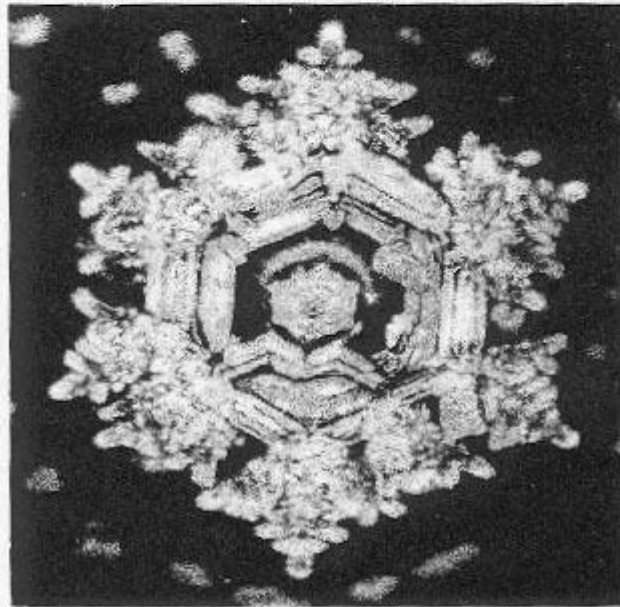
However, the most exciting experiment in my opinion was one in which a sample of water was taken from a polluted dam in Japan and then frozen and photographed. Next, a Buddhist priest sat by the water and spent an hour in prayer. Immediately after the prayer session another sample was taken, frozen and photographed. You can see the results on the next page.

The book is published in Japan and the ISBN number is 4-939098-00-1.

Posted by Deb on May 19, 2000 at 10:36:57 from 206.169.248.106:



Before



After

The DNA Phantom Effect - Secrets of Prayer and Healing

In Reply to: [Article: The Message From Water](#) posted by Deb on May 18, 2000 at 11:35:48:

Excerpt From: The Isaish Effect - Decoding the Lost Science of Prayer and Prophecy

By Gregg Braden

Chapter 8 - The Science of Man - Secrets of Prayer and Healing

Pages: 209-212

Moving Mountains: The DNA Phantom Effect

In the early 1990s, Moscow's Russian Academy of Sciences reported a startling relationship between DNA and the qualities of light, measured as photons. In a report "The DNA Phantom Effect" detailing these early studies, Dr. Vladimir Poponin described a series of experiments suggesting that human DNA directly affects the physical world through a new and previously unknown field connecting the two. Recognized as a leading expert in the field of quantum biology, Dr. Poponin was on loan to an American research institution when this series of experiments was carried out.

The experiments began as the patterns of light in a vacuum were measured in a controlled environment. After all of the air was removed from a specially designed chamber, the patterns and spacing of the light particles followed a random distribution, as expected. These patterns were double-checked and double-recorded, to be used as a reference for the next portion of the experiment.

The first surprise came as physical samples of DNA were placed inside the chamber. In the presence of genetic material, the spacing and patterns of the light particles shifted. Rather than the scattered pattern that the researchers had seen before, the particles of light began to fall into a new pattern resembling the crests and troughs of a smooth wave. The DNA was clearly influencing the photons, as if shaping them into the regularity of a wave pattern through an invisible force.

The next surprise came to the researchers as they removed the DNA from the chamber. Fully believing that the particles of light would return to their original state of random distribution, something very unexpected occurred. The patterns were very different those seen before the DNA was introduced. In his own words, Poponin described the light as behaving 'surprisingly and counter-intuitively.' After rechecking the instruments and rerunning the experiments, the researchers were faced with finding an explanation for what they had witnessed. In the absence of the DNA, what was affecting the particles of light? Did the DNA leave something behind, a residual force of some kind, that lingered long after the biological material had disappeared?

Poponin writes that he and the researchers were "forced to accept the working hypothesis that some new field structure is being excited. . . ." To emphasize that the effect was related to the physical DNA molecule, the new phenomenon was named the 'DNA phantom effect.' Poponin's 'new field structure' sounds surprisingly similar to the 'matrix' of Max Planck's force and the effects suggested in ancient traditions.

This series of experiments is important because it clearly demonstrates, perhaps for the first time under laboratory conditions, a relationship that offers even greater credibility to the effect of prayer in our physical world. In this instance the DNA was more or less a passive collection of molecules unattached to the brain of a conscious living being. Even in the absence of direct feeling pulsing through its double-helix antenna, there was a force and a measurable effect in its immediate world.

Researchers suggest that the average-sized person, of average height and weight, has many trillions of cells in his or her body. If each cell, each antenna of feeling and emotion within an individual, carries the same properties affecting the world around them, how much is the effect amplified? Now, rather than random feelings coursing through the cells of that one person, what happens if the feeling is a result of a specific form of thought and emotion, regulated as prayer? Multiply the effects of this one individual, empowered through a specific mode of prayer, by even a fraction of the 6 billion or so people in our world today, and we begin to get a sense of the power inherent in our collective will. It is the power to end all suffering and avert the pain that has been the hallmark of the twentieth century. The key is that we must work together to achieve such a goal. This may prove to be the greatest challenge of the third millennium.

In our own language we have the vocabulary to describe our forgotten relationship to the forces of our world, the intelligence of the cosmos, and one another. Using some of the most sensitive devices of our time to measure fields of energy that we did not even acknowledge fifty years ago, our own science has now validated the relationship of which the ancients reminded us over two thousand years ago. We have direct access to the forces of our world, and we have come full circle. This is the language to move mountains. It is the same language that allows us to choose life over cancerous tumors, and create peace in situations where we may believe that peace does not exist. When we read of healing miracles in times past, no longer are we left wishing that the same miracles could occur today. The miraculous outcomes are already here; we are simply asked to choose them.

Today I continue to pray. For me, each moment of life has become a prayer. I still give thanks for the good things and now feel empowered to choose new conditions in place of those that have caused suffering in the past. My training in the hard sciences has shown me that there are few mysteries and little we cannot validate, if we dare to accept the 'laws' that nature shows us in the miracle of each day.

Prayer has demonstrated to me that certain things *are*, regardless of our ability to prove them in the moment. For example, I know that some of the most sacred memories of our heritage have been scattered throughout the monasteries, churches, tombs, and temples of those who have come before us. I also know that the same memories live on in the customs and traditions of peoples that we may previously have judged as primitive. I know that we are capable of beautiful dreams, great possibilities, and unspoken depths of love. Perhaps most important, I know that a possibility already exists in which we have ended the suffering of all creatures by honoring the sacredness of all life. That possibility is already here and with us now. I know these things to be true, because I have seen them. The moment we allow for such possibilities on a mass scale becomes the first moment of new hope. It is that moment that we will always remember. It is the moment when we override the last day of prophecy.

(End of article)

BTW, I, Gary Vesperman, have a strange story:

I met an energy researcher just once back in the mid-1990's. We kept in contact all these years. He is especially knowledgeable about energy inventors and their energy inventions. Every two or three months he emails me an interesting report. He lives in Arizona.

My website www.padrak.com/vesperman has a link to my paper "Torsion Field Physics and Torsion Field Communications" which I had written a few years ago. Last winter 2013 I wrote an update "Torsion Field Physics and Torsion Field Communications II". While I was writing the TF II paper one evening, I had gotten as far as the chapter titled "The DNA Phantom Effect". I then took a break by checking my Yahoo Inbox for new emails. There in the Inbox was a report that my friend had sent titled "Chemical Evolution Theorist Forced into a U-Turn". The timing was perfect for me to add his report as the very next appropriate chapter!

Here's another example of the power of the human mind to influence matter. The International Symposium on New Energy was held in the Denver Hilton South, Denver, CO April 25 - 28, 1996. From my report on the symposium is this:

Brian O'Leary, a former Apollo astronaut, in his speech described his experiments with psychokinesis, which is the study of the human mind's influence on matter. One successful experiment involves dropping balls such as ping pong or tennis balls down an array of pins sticking horizontally out the side of a vertical panel. The statistical distribution is triangular. A person focusing on the balls to move left or right will disturb the triangular distribution pattern so as to bulge left or right corresponding to the bias of the person's mind.

(End of excerpt)

The magnitude of the 9/11 event was apparently foretold a couple of months before by statistical analysis of Internet language. Mob hysteria often powerfully and contagiously affects individual behavior.

Chemical Evolution Theorist Forced into a U-Turn

ARCHAEOLOGY NEWSFLASH 340

This news is from Jonathan Gray – www.beforeus.com.

Chemical evolution theorist forced into a U-turn

"We've made an awful mistake!" Dismay was in Dean's voice. "A student has knocked our theory to bits!" Dr Dean Kenyon, Professor of Biology (Emeritus) at San Francisco State University, was one of the leading chemical evolution theorists in the world. He co-authored "Biochemical Predestination", which claimed

1. that the evolution of life was inevitable...
2. that proteins to produce living cells were formed directly by forces of attraction between their parts...
3. that proteins are just formed together (self-assemble) in chains, directly from amino acids, without any DNA assembly instructions.

His theory was accepted with enthusiasm by the evolutionary scientific community. But within just five years after publishing, Kenyon suddenly had serious doubts. It began when one of his students asked, "How could the first proteins have been assembled without the help of genetic instructions?" (Proteins were the necessary information to build the first cell.)

And then DNA was discovered. This would prove fatal to Kenyon's molecular evolution theory. Kenyon confesses, "The more I conducted my own studies, including a period of time at NASA-AMES Research Center, the more it became apparent there were multiple difficulties with the chemical evolution account. And further experimental work showed that amino acids do not have the ability to order themselves into any biologically meaningful sequences.

"The more I thought about the alternative that was being presented in the criticism, and the enormous problem that all of us who had worked on this field had neglected to address, the problem of the origin of genetic information itself, then I really had to re-assess my whole position regarding origins." (Unlocking the Mysteries of Life)

What he now had to address was this: What was the source of the biological information in DNA? "If one could get at the origin of the messages, the encoded messages within the living machinery, then you would really be onto something far more intellectually satisfying than this chemical evolution theory." (Ibid.)

The astonishing fact is that inside every microscopic-sized cell, machines work together to accomplish specific jobs and are shepherded by other specially shaped machines to precise locations where they are needed. Learning this, Kenyon exclaimed, "This is absolutely mind-boggling, to perceive at this scale of size, such a finely tuned apparatus, a device, that bears the marks of intelligent design and manufacture!"

Observable evidence of a master designer

This is observable evidence of thoughtful, programmed designing by some Superior Mind. Evidence of intelligently organized patterns.

Music in genes

Something else. Did you know this? It was recently discovered that DNA is linked to music! If you like music, but think that you can't carry a tune, you may be wrong. Respected geneticist, Susumo Ono, believes he's discovered music in genes – particularly human genes, fish genes and rabbit genes. Susumo is a researcher in DNA.

He asked himself, "If we were to assign a musical note to each chemical on the DNA strand and string those notes together and play them, what would DNA sound like?"

So he did this – and the result was amazing. He discovered musical patterns of notes, that again reveal intelligence. Susumo Ono was so astonished that he took his findings to musicians. And musicians, in turn, were astonished to hear echoes of Bach, of Schubert, of Mozart in DNA music. Using the same formula for converting DNA into music, Dr Ono worked backwards and translated Chopin's funeral march into chemical symbols. It came out cancer!

Skeptics naturally point out that these strands of DNA produce only a string of single notes; it is the musicians who fill in the rhythm and the harmony.

But the bottom line is this: Whichever way you look at it, the PATTERNS of single notes testify to intelligence as the source of DNA. Certainly it is not from a blind, accidental force in nature.

Identical to written language

But there's more, much more. Scientists at Bell Laboratories conducted studies on the mathematical language in the DNA molecule. And what did they find? Its mathematical pattern is identical to that of conversational language.

Concerning DNA, Charles Thaxton states: "A structural identity has been discovered between the genetic message on DNA and the written messages of a human language." (Charles Thaxton, "A New Design Argument," *Cosmic Pursuit* 1, no. 2, Spring 1998)

Hupert Yockey explains: "There is an identity of structure between DNA (and protein) and written linguistic messages.

"Since we know by experience that intelligence produces written messages, and no other cause is known, the implication, according to the abductive method, is that intelligent cause produced DNA and protein.

"The significance of this result lies in the security of it, for it is much stronger than if the structures were merely similar.

"We are not dealing with anything like a superficial resemblance between DNA and a written text.

"We are not saying DNA is like a message. Rather, DNA is a message. True design thus returns to biology."

(Hubert P. Yockey, "Journal of Theoretic Biology")

Since there is no doubt in anyone's mind it takes intelligence to write a language, it is evident that it took intelligence to write the DNA code.

Intelligently designed 'sentences' impressed from the outside

Dean Kenyon was asked if DNA comes in intelligently designed 'sentences'.

INTERVIEWER: “And is it true that when scientists peer into the microscopic world of DNA, they find not mere random arrangements, but well-written ‘instruction books’?”

KENYON: “Yes. Masterpieces of immense intricacy and subtlety.”

INTERVIEWER: “And you argue that these biological ‘sentences’ in DNA could not have arisen merely by material means, as evolutionists suggest?”

KENYON: “No. Just as the chemistry and physics of ink and paper do not determine the order of symbols in a printed text, but that order must be impressed on the ink from the ‘outside’, so also the order of the bases, or sub-units, in DNA [adenine, thymine, guanine, and cytosine, or A, T, G, and C as commonly represented] is not determined by the known chemical tendencies of these individual sub-units, but instead appears to have been impressed from the ‘outside’ on the sub-units to create just those sequences that make biological sense.

The fantastic complexity and orderliness of the DNA code – condensed into an incredibly tiny size – suggests the work of a brilliant intellect rather than chance processes. It suggests that much thought has gone into their design – just as human beings use intelligence to design and construct computers, jumbo jets, space craft and other intricate equipment.

If radio signals were to be received from outer space, they would be understood as evidence of an intelligent source. Why then should we not regard the message sequence on the DNA molecule as prima facie evidence of an intelligent source?

Designed not to evolve

But that is not all! Gene code letters have built in error protection! Genes store information in long strings of DNA, in the form of chemical letters, called A, T, C and G. So that genes can be accurately copied, each gene consists of two parallel strands of DNA held together by links between the code letters of one strand and those of the other strand. The two strands are not identical. That is, A’s do not link to A’s, and so on. Instead, they are complimentary. A’s always link to T’s; C’s always link to G’s.

Donail MacDonaill of Trinity College, Dublin, studied that pattern of linkages between letters. And he found that they form a parity code similar to computer codes, to minimize mistakes during the electronic transfer of information. (Nature science update, www.nature.com/nsu September 18, 2002)

Now is the moment of truth. No one would be so naïve as to believe modern electronic parity codes could have evolved by chance. They were carefully planned by software designers. The parity code found in DNA is further evidence the genetic code was deliberately created. It also reminds us that DNA is designed to maintain accurate copies and avoid changes in the information it carries.

This means it was designed to NOT evolve. But rather to reproduce its own kind forever. Come to think of it, wouldn't that make evolution scientifically impossible?

<http://www.beforeus.com/coverup.php>

Jonathan Gray info@archaeologyanswers.com

International explorer, archaeologist and author Jonathan Gray has traveled the world to gather data on ancient mysteries. He has penetrated some largely unexplored areas, including parts of the Amazon headwaters. The author has also led expeditions to the bottom of the sea and to remote mountain and desert regions of the world. He lectures internationally.

Torsion Physics: A View from the Trenches

By Paul A. Murad, November 28th, 2005 www.americanantigravity.com

Gravity is nature's most mysterious force – or is it? Einstein's Relativity suggested that it's not a force at all, but instead a curvature of time and space. His later research into Unified Field Theory physics extended this notion with the concept of torsion, which many physicists believe has the power to 'uncurve' space and make possible a new generation of advanced propulsion devices...

It is difficult to talk about what torsion really is. In most of my activities that involve reviewing technical papers, I always ask authors to expand upon their views or definitions on certain terms to make sure that I understand what they are really talking about. That may sound like a trivial comment or requirement but it can lead to interesting conversations when people learn that they may be talking about different subjects.

Let me cite a simple example. During the mid-sixties Sakharov, the famous scientist that fathered the Russian nuclear bomb program, suggested that the vacuum might not be empty and devoid of particles but full of untold energy. Scientists in the west viewed this from a Dirac's quantum mechanics perspective suggesting that particles are instantaneously created and annihilated and when this occurs during the cycle of life and death, their fields also increase and decrease respectively. This involved electric, magnetic, and gravitic fields.

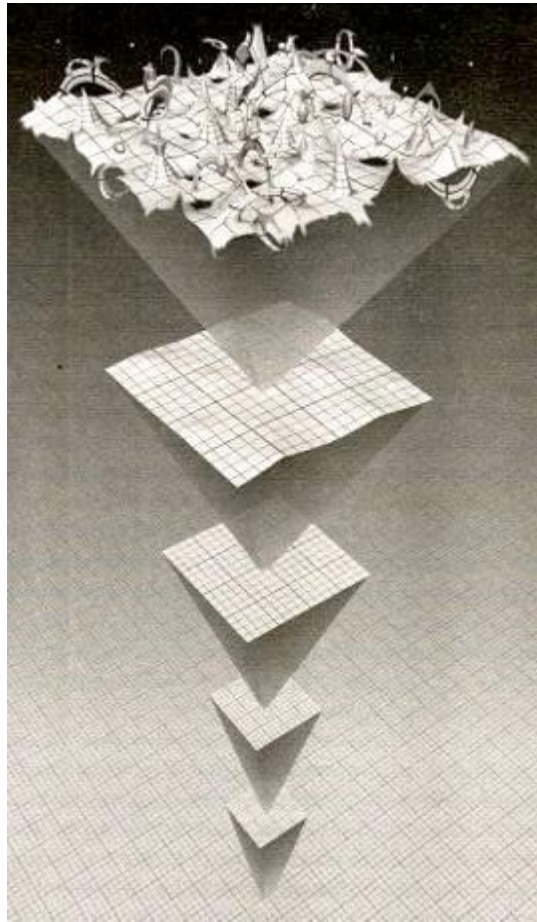
The Russians viewed Sakharov's words differently and developed the physical vacuum theory where the vacuum consists of spinors, a shorthand notation for tensors that possess an electric, magnetic, gravitic and spin field. These are two different paradigms and a physicist may favor one over the other and I am sure that some may argue with what I have already said.

With this background and allowing for a margin of misunderstanding, let us talk about torsion. Bob Forward looked at Einstein's field equations and really made some interesting headway with the understanding of what was going on. He came up with the solution to the perihelion of Mercury problem and resolved it by using relativity. This was considered as a definite proof of the theory of relativity. Three decades later, Pharis Williams also looked at the same problem and was able to identify the 47-second difference every hundred years in Mercury's perihelion by not ignoring second-order terms within the two-body problem of celestial mechanics. Interestingly when you talk about such small differences of the fourth-order, you should not ignore second-order terms.

Forward stressed that one could potentially control gravity by electromagnetic means based upon Einstein's field equations. He also mentioned that the stress-energy tensor in these equations allowed for, as Einstein also indicated, the existence of other types of fields since the Field Equation resulted in 16 different equations where you could only account for about ten of these equations in a four-by-four Cartesian space-time domain.

The other equations included four Maxwell's equations involving the electric and magnetic fields, and conservation equations for continuity (mass), three for momentum, and one for energy. Of these equations, the stress energy tensor could also account for torsion.

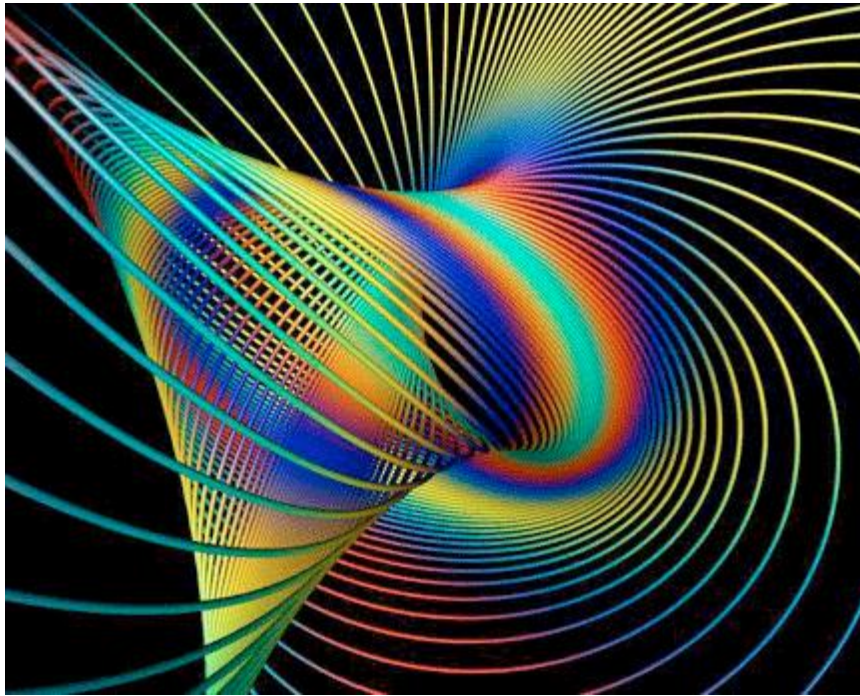
The Russians have performed considerable work in the field of torsion and in some situations; the term 'spin' field is used synonymously with the term torsion. Basically, the Russians strongly believe in Einstein's theory of relativity and his statements that nothing can go faster than the speed of light. With this view they feel that electric, magnetic, and gravitic fields all support propagation velocities that are at the speed of light. Shipov is an excellent reference for these theories where he described additional equations based upon a geometry theory on the field equations. Like others, he espoused the view that space-time curvature was representative of looking at geometrical changes. Shipov claimed that the vacuum was homogeneous in his theory.



Quantum Foam: Sakharov proposed that empty space was filled with virtual particles.

Even amongst the Russians, different views existed. Dyatlov claimed that anomalies had differences in these fields that were separated by a distinct boundary. This inhomogeneous theory differed from Shipov that could not explain these natural anomalies. In fact a graviton, based upon some theories by Dyatlov, is nothing more than a photon that has undergone a fluorescence change that altered the spin number. Thus gravitons could be converted into photons and vice-versa. Interestingly, the Russians would hedge their bets and if indeed some phenomenon could exist that moved at faster than the speed of light, it would not be electromagnetic or gravitic in nature.

The only field that could support faster than light phenomenon was the spin or torsion field. Torsion is different from these other three fields that could have spherical symmetry. Torsion could be right-handed or left-handed and is based upon a cylindrical field and can be created by large accumulations of electricity and rotation of a body that if above a certain speed, would enhance the torsion field. Torsion can lead to other phenomenon to include frame dragging. Here in a vacuum, frame dragging occurs when a rod is inserted concentrically inside of a cylinder and has no physical contact with that body. If the rod is suddenly removed, the cylinder will also move or is dragged along with the rod. Other examples exist regarding rotational bodies that would also influence adjacent rotating bodies due to the interaction of one spin field interacting with another.



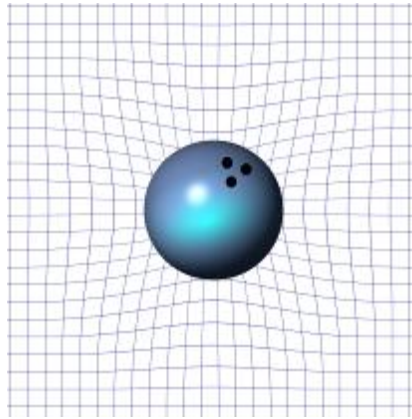
Torsion Field: Einstein's Metric Torsion Tensor allows a spin-field to twist spacetime.

Kosyrev, a Russian scientist, wanted to stress the importance of time and torsion performed experiments with gyroscopes that revealed anomalies. Forward also performed such experiments and indicated that gyroscopes could be coupled by virtue of the spin field. Kosyrev performed experiments as an astrophysicist. Amongst these experiments, he predicted that the moon did not have a magnetic field and also possessed no volcanic action. He was proven correct three years later when American astronauts landed there and made detailed measurements.

One of his experiments involved placing a detector inside of a telescope that measured energy. When he pointed the telescope at a star, the detector registered energy. He explained this as the energy that left the star and reached the Earth traveling at the speed of light. However, the star was not physically at this location. He then moved the telescope and pointed it at the actual position of the star. The detector initially dropped in its energy level and then moved to an even a higher level when finally aimed at the actual position. He surmised that this was due to the energy that left the star traveling at an infinite speed or instantaneous velocity. This also made sense. He then pointed the telescope to a similar location that was about the same difference in distance from the original two locations but aimed at a future location.

Again the detector dropped and when it reached the final location started to rise although at a lower level than the other two readings. He had no explanation for this.

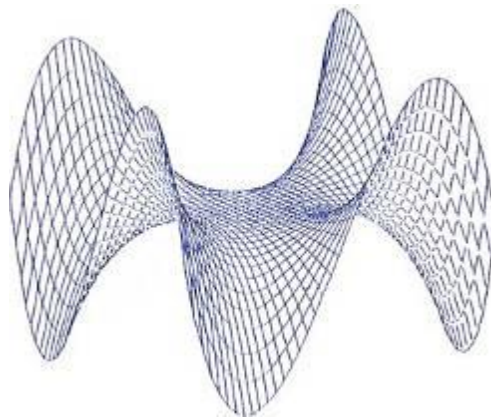
The Japanese replicated Kosyrev's gyroscope experiments and a colleague duplicated the above telescope experiment with the same star about ten years later. The experimenter had no reason for the last results except that the star rotated about its axis at a very high rate and surmised that the energy readings were indicative of the spin field.



Curved Space: Gravity is actually a curvature of space.

Jeffimenko developed a gravitational theory that created conservation equations for the gravity field and co-gravity field. He extended Newton's approach for defining gravity and desired to include relativistic effects within definition of gravity and not mass. He also felt that since the same face of the moon faced the Earth, gravity not only induced a radial force but also could create angular momentum. Interestingly his resulting gravity expression implied that gravity was not only a function of distance but both distance and the objects velocity. The latter term becomes increasingly important as the speed reaches relativistic conditions. Co-gravity is not very large compared to gravity because co-gravity currents and sources are less than their gravity counterpart by a factor of one over the speed of light.

Murad looked at these equations and choose this model because the conservation equations strongly resembled the electric and magnetic field equations derived from Maxwell's equations. These gravitational laws included a Heaviside-like expression. Similarities exist with Jeffimenko's equations and the electric and magnetic field equations derived from Maxwell's equations in terms of currents and source terms. Whereas the electric and magnetic field equations are coupled due to cross-currents, the gravity and cogravity equations are likely coupled by cross-currents. Obviously it was desired that if there appeared gravity-like terms within the electric and magnetic field equations, the results would obviously have been a unified theory. Unfortunately this did not occur.



Twisted Space: Torsion can uncurve space for antigravitic and faster-than-light propulsion.

During this time, Murad interacted with Dyatlov and recognized that Dyatlov apparently personally knew Jeffimenko although these individuals had technical differences. He refused to extend Jeffimenko's equations although Murad did and published the results at several technical conferences at STAIF and the AIAA. Furthermore, Murad also could not coax any of the Russians he was interacting with to provide him with an equation that describes torsion as originally derived by Einstein's field equations. Thus he made the conjecture

that Jeffimenko's co-gravity equation did not possess spherical symmetry but also had cylindrical symmetry similar to the description of a torsion field. Moreover, co-gravity appears to be the elusive Russian spin field as described by both Shipov and Jeffimenko.



Black Hole: Support for the notion that some particles can travel faster than light?

As an epilogue, more work is needed to understand the torsion field that is given by its legitimacy by Einstein's field equations. As a preference of this particular author, I believe that both the spin and gravitational fields are capable of supporting disturbances that propagate faster than the speed of light. I cite events about a black hole where light does not leave because of the strong gravitational attraction. If light does not leave, than electric and magnetic fields can also not leave. There are, however, particles that leave a black hole. These particles in the form of wave radiation must do so only at speeds greater than light. Furthermore, since gravity is the only thing that shows the presence of a black hole, it too must leave faster than the speed of light.

These issues are interesting theories and definitely should be further explored if mankind wishes to get serious about space travel to the far horizons.

Paul Murad serves as the chairman for "Section-F" of the UNM ISNPS STAIF conference, dealing with advanced concepts in breakthrough propulsion physics. His formal education includes a Bachelor of Science in Mechanical Engineering (BSME) and a Master of Science in Aeronautical Engineering & Astronautics from the New York University School of Engineering.

The Speed of Light is Slowing Down!

Astronomers and physicists have proven that the speed of the torsion field is at least 1,000,000,000 times the speed of light. However, the below emails discuss that the speed of light is slowing down! Now what?

Dear Friends,

In early August 2004, I, Gary Vesperman, sent to most of my email correspondents the below link to a report that the speed of light has slowed 7 per cent over the past three centuries! On even a human historical time scale of 10,000 years, ignoring for the moment vast geological time scales, that much of a slowdown shockingly throws our presently comfortable understanding of physics and astronomical distances wildly cockeyed.

Below from three friends are their brave responses. The fact that only three could think of something to say out of well over a hundred highly knowledgeable recipients indicates the truly bewildering nature of the phenomenon of light's speed slowdown. I rank it with such crazy phenomena as etheric weather engineering, Reiki healing, dowsing for water, extra-sensory perception, and the multi-generational migratory habits of monarch butterflies.

Gary Vesperman

(Gary Vesperman's email)

Dear Friends,

http://www.wnd.com/news/article.asp?ARTICLE_ID=39733

I have been thinking about this all week, raising my eyebrows higher and higher.

For instance, what happens now with Einstein's famous equation energy equals mass times speed of light squared?

What happens to calculations of distances to the stars?

The speed of light has the dimensions of length divided by time. Is length constant, but time is changing? If time is changing, then what is time?

Is the speed of light oscillating over a very long period of time, or dependent on location of the measurement? Or has it really been slowing down since the beginning of time? What is and when was the 'beginning of time'?

If I remember my physics correctly, the speed of light (in a vacuum) is the reciprocal of the product of permeability (magnetic field constant) and permittivity (electrical field constant). What happens now with those two fundamental constants?

Photons of light do not have mass. So therefore, light photons shouldn't have momentum or kinetic energy. However they do have energy proportional to their frequency. (I think the energy of one photon E is equal to Planck's constant h times the photon's electromagnetic wave frequency f .) Is there any indication of a photon's energy being affected by changes in its speed in a vacuum? If so, would there correspondingly be changes in the photoelectric effect, photovoltaic electricity generation, photosynthesis, photography, etc?

Gary Vesperman

(Andrew Michrowski's response)

Perhaps you will view things with a different angle about time.. after reading the attachment.
Cordially, and in goodwill,

Andrew Michrowski

(Andrew sent an attached article titled "Time and Its Physical Relationships" which is reproduced below.)

(Linda's thoughts follow next)

From:
To: gvesperman@hotmail.com (Gary Vesperman)
Subject: Re: Speed of light is slowing down!!!!
Date: Tue, 10 Aug 2004 06:13:15 -0500

Gary,

One's body's DNA as it ages goes through a time limited process. In other words, cloning of one's DNA immediately shortens the clone's lifespan because of the DNA lifespan.

Our Universe, as we know it, is a living 'organism'. So why wouldn't it go through the shortened process through aging? Although it conflicts with 'constants' of physics which assumes eternal stability, our Universe as a living 'being' goes through changes much like short-lived organisms as we know it here. Life was shorter in Einstein's lifetime, so hence his view of stability in constants.

Now I have read that the Universe goes through a process of shrinking and expansion. Supposedly, the Universe is in the shrinking process right now. Why wouldn't that affect 'constants' such as we know them?

All this says is that in our equations, speed of light now becomes a variable, not a specific value.

Only my thoughts,

Linda

(Hal Fox tries to help us dig out of mankind's dark hole of ignorance.)

From: "Harold Fox" <eemf@earthlink.net>
To: "Gary Vesperman" <gvesperman@hotmail.com>
CC: "Pat Bailey" <ine@padrak.com>
Subject: Thanks for interesting article
Date: Tue, 10 Aug 2004 11:01:09 -0600

Dear Gary Vesperman,

Thanks for calling my attention to an interesting article.

http://worldnetdaily.com/news/article.asp?ARTICLE_ID=39733

Here is something that might be of interest to you:

I read and reviewed the following book:

Petar K. Anastasovski & Trevor M. Benson, Quantum Mass Theory Compatible with Quantum Field Theory, c1995, 165 pages, 30 refs, indexed, illus. Published by Nova Science Publishers, Inc., 6080 Jericho Turnpike, Suite 207, Commack, New York 11725. \$87.

The book reports on Anastasovski's experiments with sending photons through ions and noting that there is an interaction between photons and ions. This effect had not previously been known nor expected. In my review I suggested that this effect would explain the red shift. Anastasovski immediately wrote that he had not considered that possibility. The result was that he wrote the following article and gave me more credit than I deserved: (We were both visiting Ken Shoulders when we discussed this topic.)

Petar K. Anastasovski, H. Fox, K. Shoulders, "A New Approach to the Cosmic Red-Shift and to the Cosmic Microwave Sources," J. New Energy, vol 1, no 2, Summer 1996, pp 79-87, 4 refs, 5 figs.

This series of events essentially kills the old concept of an expanding Universe that began with a big bang. My guess is that this will explain the bands of radiation discussed in the article you referenced.

Why the speed of light should be changing may be related to the emergence of this solar system into a 'higher realm' that is being predicted or stated by some of the celestials. You may want to follow some of the information that is being posted (see reference at end of this email).

Thanks again for the reference to the article!

Best personal regards, Hal Fox

P.S. You will want to see www.starshipcapricorn.org for the latest information from Capt. Helena, Starship Capricorn.

(End of Fox's email)

Gary Vesperman's additional thoughts on the speed of light slowing down:

The Aztecs believed that time proceeds in cycles as described in the middle of <http://www.cropcircleconnector.com/2004/silburyhill2/silburyhill2004b.html>. If indeed time proceeds in cycles, then perhaps the speed of light also increases and decreases in cycles? And that the current cycle will end 2012.9 as supposedly predicted by the Doomsday crop circle? Now, exactly how does time proceeds in cycles? To get around the absurdity (?) that the speed of light has been slowing down for eons of time, one answer is that the speed of light has been slowing down or speeding up in cycles. If so, over what period of time?

The Mayan-Aztec calendar uses periods of 5200 and 520 years. Disregarding the unlikely relation of light speed to planetary motions, we could try 5200 years ago and see if our Universe could still function in a reasonable manner with the speed of light at that much higher magnitude.

When calculating what would be the peak speed of light 5200 years ago, we could figure out what physical events could have happened at that time and look for archaeological or geological evidence of those events. BTW, 5,200 years happens to be close to some calculations that the Bible's Genesis chapter began something like 4,500 years ago.

Since the speed of light is slowing down at such an astonishingly rapid rate, it may be helpful to determine the speed of light where it slows down enough to cause noticeable effects (other than complaints to telecommunications companies!).

(I have acquired a huge respect for the wisdom of ancient peoples. So I wouldn't quickly dismiss the Aztec notion of time proceeding in cycles.)

Cycles of Time, in Life and Death

In *Mysteries of the Ancient Americas*, the book states: "To the Aztec, as to all ancient Mesoamerican peoples, time proceeded not linearly, but in cycles. ... Just as the world was created, destroyed and recreated time and again, so smaller units of time repeated themselves. ...If life was impermanent for the Aztec, so, in the last analysis, was death. Life contained the inevitability of death, but death held within it the certainty of rebirth.

For the Aztec, as for other native American peoples, death meant passage from earthly life to another existence on a different plane in a multi-level Universe. For some, it also meant even the possibility of return to earth, though in a different form."

Gary Vesperman

Time and its Physical Relationships

From : IDSOMA@aol.com

To : vman@skylink.net

Subject : Physics of gravity.

Date : Thu, 4 Jul 2002 17:48:07 EDT

DMITRIY PLOTNIKOV, PHYSICIST

9 Smith Court, Hillsborough, NJ 08844

(908) 281-8092

Idsoma@aol.com

Dear Friend,

My name is Dmitriy Plotnikov. In 1994, having tried a lot of options, I decided on analyzing one of the issues from quantum mechanics, namely the problem of two states: upward spin and downward spin. Why? I will try to explain this below. I wrote the laws of quantum mechanics on center of masses of two identical elementary particles. If you do all the mathematical calculations, on the center of masses of two elementary particles, then you will come to a conclusion:

1. The center of masses of two elementary particles is a quantum value possessing different energy states.
2. It is possible to dwell on the amplitude of the probability for the center of masses to stay in one of the states: C(E1) or C(E2).

(Truncated. Access Plotnikov's "Physical-Gravitational Interaction as a Two-State Problem" at <http://www.journaloftheoretics.com/Links/links-papers.htm>.)

From : pacenet@canada.com

To : vman@skylink.net

CC : idsoma@aol.com

Subject : Re: Plotnikov on the physics of gravity

Date : Thu, 04 Jul 2002 20:33:29 -0700 (PDT)

Attachment : Time1.doc (79k)

Happy July 4th!

You may find the enclosed paper of interest since it complements the position of Dmitriy Plotnikov.
Cordially, and in goodwill,

Andrew Michrowski

Time and its Physical Relationships

Andrew Michrowski

President, The Planetary Association for Clean Energy, Inc.,

Space Travel Innovations

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July 7, 2014

Time cannot be absolutely defined, and there is no inseparable relation between time and signal velocity.
Albert Einstein¹⁶.

Time does not exist by itself

The phenomenon of time emerges in relationships – as an expression of properties of physical bodies and changes that occur to them.

Time is a factor of energy. Time has to do with the *increase* and *decrease* of energy. For example, as energy is brought down to a ‘zero level’, time is ‘eliminated’, so in a sense, time cannot be ‘compressed’ – only eliminated. In the zero-energy level, electrons occupying this level in unlimited numbers are available through state transitions for the building of matter and the vacuum¹⁷. So it is the extent and the nature of energy flow that determines the characteristics of time.

How do we know all this?

In his seminal foundations of physics work of the early 1900s, **Sir Edmund T. Whittaker** demonstrated by canonical quantization that there exist physical, time-like and longitudinal photons *in vacuo*^{18 19 20}. The 2 scalar potential functions, F and G , which completely characterize an electrodynamic field due to electrons in the ether are:

$$F(x, y, z, t) = \sum \frac{e}{4\pi} \sinh^{-1} \frac{\bar{z}' - z}{\{(\bar{x}' - x)^2 + (\bar{y}' - y)^2\}^{1/2}}$$

$$G(x, y, z, t) = \sum \frac{e}{4\pi} \tan^{-1} \frac{\bar{y}' - y}{\bar{x}' - x}$$

In these equations, for the fundamental case in which a field is due to any number of electrons moving in any way, we observe that time emerges only through the displacement of energy. Another way of putting it would be that time emerges through change in energy.

These photons have an independent physical existence. Whittaker himself observed, after computation that the “total disturbance at any point, due to this system of waves, is independent of the time, and is everywhere

¹⁶ Einstein, Albert. *How I created the theory of relativity*. [Translation by Yoshimara A. Ono.] **Physics Today**. Volume 35 (8), August, 1982. p. 45-7. [Lecture given by Einstein in Japan, on learning of his Nobel Prize.]

¹⁷ Phipps, Jr. Thomas E. **Heretical Verities: mathematical themes in physical description**. Classic Non-Fiction Library, Urbana, 1986. p. 397-405

¹⁸ Whittaker, Edmund T. *On the partial differential equations of mathematical physics*. **Mathematische Annalen**. Volume 57, 1903. p. 333-355.

¹⁹ Whittaker, Edmund T. *On an expression of the electromagnetic field due to electrons by means of two scalar potential functions*. **Proceedings of the London Mathematical Society**. Volume 1, 1904. p. 362-372.

²⁰ Whittaker, Edmund T. **A history of the theories of aether and electricity**. Volume 1 and 2. London: Thomas Nelson & Sons, 1953.

proportional to the gravitational potential due to the particle at the point”²¹. **A. D. Sakarov** admitted that the gravitational field is a “conglomerate of loose things and not a fundamental field of nature at all”²².

Everything electromagnetic, and probably gravitational, starts from these potentials, not fields, and under certain circumstances, there may exist photons without fields being present at all. In the *vacuo*, the longitudinal light photon travels in the direction of the beam, like an energy capsule, as a scalar four-potential-function energy standing-wave field, with many different frequencies, with an internal symmetry based on circular polarization^{23 24}, an energy field or nexus that “has an end, but no beginning”. The time-like and space-like parts of the four potential are photons with spin -1 , 0 and $+1$ that are longitudinally directed, and which are observed in the *Compton* and the photoelectric effect²⁵.

Movement of light affects time

Philip S. Callahan designed an elegant experiment that shows how variations in the movement of light affect time²⁶. Changes in exposure settings of photographs of same objects, including coherent light laser spots results in shift of position of images. The more coherent the light, the less apparent is a shift in time. He suggested that time is neither absolute nor independent of photon activity of space.

We can also state, as a corollary, that the *movement* of light generates time. After all, the electrodynamics are associated with photons. This is particularly significant in time engineering, as will be seen later.

Time and life

Now, it is well known that the ability of cells to sense the presence of light is a primary function of life itself. If a cell can sense light, it is alive; if it cannot, it is dead²⁷. Callahan was able to observe that time increments were detected on light-detecting surfaces of living organisms such as the cuticles of leaves.

The Russian time researcher, **Nikolay A. Kozyrev** considered that living systems ‘consume’ time for their life-energy²⁸. **Velimir Abramovich** suggests that living organisms are naturally-driven ‘time machines’. They each have an inbuilt time that serves as a ‘code’ to structure their own physical totality and to regulate their own functioning. Thus their ‘local time’ acts as a ‘time operator’/‘time condition’/frequency²⁹. The nature and level of electromagnetic fields in living systems could therefore be considered as indicators of their ‘energy level’ and how it affects and adjusts the inherent rate of time-flow.

Time and consciousness

We append to these statements the notion that, yes, time is ‘consumed’ by living organisms – but only if they are conscious. Essentially, time can be perceived by measurement, which always requires a conscious observer.

²¹ Whittaker, Edmund T. *On the partial differential equations of mathematical physics*. **Mathematische Annalen**. Volume 57, 1903. p. 354.

²² Sakarov, A. D. *Vacuum fluctuations in curved space and the theory of gravitation*. **Soviet Physics Doklady**. Vol. 12, 1968. p. 1040-1. [English translation.] Original in: **Doklady Akad. Nauk. SSSR**, Vol. 177, 1967. p. 70-1.

²³ Evans, Myron W. **Physica B**. Volume 182, 1992. p. 227

²⁴ Evans, Myron W., and S. Kielich (editors). *Modern nonlinear optics*. [Special topical issue of Ilya Prigogine and Stuart A. Rice: *Advances in Chemical Physics*. Wiley, New York 1992, 1993, 1997, and 2001] Volume 85 (2).

²⁵ Institute for Advanced Study (Budapest). *On Whittaker’s F and G fluxes, Part III: the existence of physical longitudinal and time-like photons*. In: **Higher symmetry electrodynamics**: a collection of AIAS papers. [Special Issue. **Journal of New Energy**.] 2000. p. 7-1 – 7-5.

²⁶ Callahan, Philip S. and Kevin. *Sinewaves of spacetime*. **Newsletter of the Planetary Association for Clean Energy**. Volume 9(2&3), April 1997. p. 8-9.

²⁷ Jibu, et al. *Evanescence (tunnelling) photon and cellular “vision”*. **Biosystems**. Vol. 43, 1997. p. 65-73.

²⁸ Kozyrev, Nikolay. A. **Selected works**. University of St. Petersburg. 1991. [In Russian]. Also: **On the way to understanding the time phenomenon: Construction of time**. A. P. Levich, editor. World Scientific Press. 1995.

²⁹ Abramovich, Velimir. *Experimenting with Time*. **New Energy Technologies**. Volume 3, November-December, 2001. p. 13-5

When we measure, we observe the differentials of energy flow. It is the measurement of these differentials – as we note from the Whittaker equations of scalar fluxes – that allows us to measure the equivalence of time. When we measure differentials, we are effectively creating our notion of time.

It is difficult for humans to conceive that time does not exist when humans think about it. Saint Augustine speaks for all humans with his observation:

While I do not think about time, I know that time exists.

When I begin to think about it, I stop understanding what it is.

With such conditioning, humans cannot come to grips with the notion that the Universe has no beginning and no end. It is like the paradigm of absolute nothingness – people cannot deal with the concept of no time because, effectively, consciousness, like life, consumes time. One could advance the notion that thought itself is time in motion. When we think, we are creating time. Life is movement – and the brain registers energy differentials and their associated fluxes of scalar potentials.

Time and causal mechanics

Since time is the result of movement of energy (and accordingly, light), then time is associated with the cause-effect processes linked to a first position of energy to the next. In other words, time is innate to causal mechanics.

Variations in energy flow, logically, lead to variations in the characteristics of time. They also permit variations in causality.

Conversely, changes in time lead to changes in physical structure³⁰. This phenomenon was proven by Kozyrev and has been labelled as the *Kozyrev effect*³¹. He demonstrated that changes in the course of time affect the performance of electronic components. Figuratively speaking, a transistor is like a corral in which light behaves in a certain way. By changing the way that light behaves, a transistor becomes valueless.

To create an extra-temporal causality (with linkages to another level/dimension) one must change the light movement. Changing the light patterns means changing the behavior of a wave, and its concordant photonic reality. By altering the photons, we make them go to another dimension.

Changes in time can effect change in living systems³². The engineering of ‘time-polarized’ waves has the promise to target and amplify natural healing processes in living organisms. It is these natural activities that would restore diseased cells to their original and healthy condition³³. Such time engineering may also include the reversal of the effects of AIDS, smallpox, anthrax, and most bio warfare agents, with treatment times of only a few minutes per week, with no more than 3 treatments required in all. Eventually it may also be possible to reverse the effects of genetic disorders, effect limb regeneration, and cure spinal cord injuries³⁴.

³⁰ Frolov, Alexander V. *Practical application of time rate control (TRC) theory*. **New Energy Technologies**. Volume 3, November-December, 2001. p. 15-18.

³¹ Kozyrev, Nikolay A. *The possibility of experimental study of the properties of time*. **National Technical Service**, US Department of Commerce, Springfield, Virginia. (JPRS 45238). [Undated.]

³² Bearden, Thomas E. *Renaissance healing, a concept whose time has come*. **Proceedings of the United States Psychotronics Association**. Volume 9, 2000. p. 1-2.

³³ Bearden, Thomas E. *Vacuum engines and Prioré's methodology: the true science of energy-medicine. I and II*, **Explore! For the Professional**. Volumes 6 (1), and (2) 1995.

³⁴ Bearden, Thomas E. Private communication. February 2002.

Engineering causality

Variation in the density of energy determines variation in the 'the course of time'. By the 'speed of course of time' is meant the rate of causal transformation and the input of additional forces into systems (including mechanical tensions). According to Russian scientists^{35 36 37}, there are interesting possibilities in deploying engineering for causal mechanics.

In preventive time engineering, one could delay the approach of a known cause and to artificially close the consequence loop, and thereby annulling it from ever achieving an effect. In other words, one can make the effect 'happen' before its normal time, disrupting space structure with its related 'speed of the course of time'. One can also make it 'happen' after its expected deadline. This technology could have interesting implication in strategic situations (preventing an extra-planetary body from attaining a collision course).

According to the Russian experience, when the spatial structure is disrupted by time-engineered causal mechanics, the affected region undergoes relative greater entropy (or, less order). The volume of space is forced out to somewhere else, generating torsion fields, much like a balloon will drift away from denser air.

A similar phenomenon occurs when the velocity of a mass increases, the force emerges against it, called 'inertia'³⁸. Now, to increase velocity, the energy of the mass increases. In the case of time, as the movement of energy increases, interaction or reaction with another dimension ensues to compensate for that primary change.³⁹

The boundary layer between the two states of space can then act as a mirror and the approaching agent may be reflected back to its source. For example, a light beam may be reflected back to its emitter, in full, or in part, depending on the engineering.

With space-time engineering, we could develop teleportation systems⁴⁰. The course of time goes from the past to the future, in the direction of greater disorder. Going back to the past represents deceleration. The etheric continuum is perceived by Kozyrev is containing variations of 'density' of structural elements. The 'denser' the etheric region, the slower is the course of time. A zone of accelerated time course would be forced out into 'rarefied' ether. A zone of slowed time would be forced into denser ether. Hence the basis for a teleportation technique.

In vivo experiments with a Time Machine

For over 15 years, a Russian association of scientists has conducted experiments with of acceleration and deceleration of time with 4 prototypes of time machines⁴¹. Light-heartedly, the units are called 'muskrat traps' since the experiments conducted in remote forest were disguised as a high-tech electromagnetic technology for trapping muskrats. The time machine units are spheres ranging in diameters of 30 centimeters, 1 meter, and

³⁵ Frolov, Alexander V. *Practical application of time rate control (TRC) theory*. **New Energy Technologies**. Volume 3, November-December, 2001 p 15-8.

³⁶ Kozyrev, Nikolay. A. **Selected works**. University of St. Petersburg. 1991. [In Russian]. Also: **On the way to understanding the time phenomenon: construction of time**. A. P. Levich, editor. World Scientific Press. 1995.

³⁷ Kozyrev, Nikolay A. and V. V. Nasonov. **On some properties of time found by means of astronomical observations**. Collection: **Problems of research of the universe**. Volume IX, M-L, 1980.

³⁸ Puthoff, Harold E. *The energetic vacuum: implications for energy research*. **Speculation in science and technology**. Volume 13 (3). p. 247.

³⁹ Frolov, Alexander V. *Trilateral spacetime effect*. **Newsletter of the Planetary Association for Clean Energy**. Volume 9(2&3), April 1997. p. 10-13.

⁴⁰ Frolov, Alexander V. *Practical application of time rate control (TRC) theory*. **New Energy Technologies**. Volume 3, November-December, 2001 p 15-8.

⁴¹ Chernobrov, Vadim. *Experiments with a man in the Time Machine*. **New Energy Technologies**. Volume 3, November-December, 2001 p. 6-8.

2.1 meters. The shells are encased with coils designed to produce convergent waves. Team leader **Vadim A. Chernobrov** describes converging electromagnetic waves as moving from a periphery to a central point. They are observed when a hoop is thrown into the water and inside the hoop the waves converge. If a potential is applied to do work and to initiate the energy differential process, the other reverse direction scalar (the reverse-time energy flow) must react. Thus, compensation of time – in the form of the deceleration or acceleration of the rate of time – can take place⁴².

The first trials involved mice, in which most (25 out of 31) died. Eventually, there were successful 2-hour runs of time travel. An experiment with a dog that was clearly frightened also showed no ill effects. This led to experiment with humans, the first being **Ivan Konov** who, on August 26, 2001 decelerated into the past by 3% of planetary time during a half-hour trial. Dozens of others have experienced the phenomenon and report such sensations as: quicker pulse, giddiness, itching skin, body twisting, numbness at extremities and a case of an out-of-body experience. Harmful effects on living systems do not appear to be linked to the change of the rate of time, but rather to the variations of the time rate value among regions of a living organism.

Some individuals reported visual experiences such as ‘starry sky’, ‘luminous vortices’ and colour spots. Individuals observing outside of the time travel machine noted headaches. The most interesting phenomena occurred just before the start-up: significant presence of ozone for several hundreds of meters around the machine, which was located in a forest. Also noted were strange lighting effects in the sky above the apparatus, accompanied by sounds that inexplicably appeared to generated from inside.

Factors affecting the rate of time

The experiments yielded interesting observations: the phenomenon of the rate of change of time varies according to the hour of the day and according to the lunar phase. The rate can be influenced by a variety of external inputs, including mechanical vibration.

The transition into the future differs from than into the past. It is like movement from any point in a tree – where downwards represents past time. There are many paths possible towards the future – upwards, along the branches, but only one towards the past – downwards to the trunk. The return from the past time is possible only if the time traveler does not interfere with occurring events – or the possibility of returning to another branch of the tree. However, a return move from any variant of future time is possible regardless of the behavior of the traveler.

The Russian time-travel experiments point to a relationship between inertia and time. In changes of rates of time, the region adjacent to the spheres develops a boundary layer effect, appearing as an aura of ‘white mist’. The greater the time differential, the denser is the mist.

(In the Moe-Joe Orgone Energy Cell chapter of “130 Electrical Energy Innovations”, www.padrak.com/vesperman, there is this report:

“Another weird phenomenon: Sometimes the Charger’s engine was emitting a strange whitish ‘fog’ out of the oil intake tube, exhaust, air filter, and other orifices. Putting one’s hand into the ‘fog’, it doesn’t feel at all like the hot steam that boils out of a hot uncapped radiator.”

In the Radiant Energy Pump/Electricity Generator chapter of “130 Electrical Energy Innovations” there is this report:

⁴² Frolov, Alexander V. *Trilateral spacetime effect*. **Newsletter of the Planetary Association for Clean Energy**. Volume 9(2&3), April 1997. p. 10-13.

“If a photograph of a single bulb lighted with radiant energy is taken the print shows a large, dark ring, perpendicular to the base of the bulb. This ring looks like a circle of translucent black fog. It seems the light somehow reflects itself on the air, or projects a shadow of itself there.”

Now in the case of ordinary clouds and fog, light photons are reflecting off of water droplets and received by our eyes. I am not sure about the radiant energy pump’s black fog, but in the case of a time machine’s ‘white mist’ and the Charger’s whitish ‘fog’, there seems to be no water droplets to reflect light to our eyes. Then what is it that the light photons are reflecting off of that our eyes are seeing? And why is the color of the mist white instead of some other color? Gary Vesperman)

A similar phenomenon has been observed, and captured on film, with some experiments conducted by **John Hutchison** involving remote-controlled lifting and disruption of objects^{43 44}. It may be that the *Hutchison effect* involves causal mechanics.

Time and frequency

Time may be viewed as a process – or ‘change-of-space’ in any direction that does not exist in our dimension^{45 46 47}. In physics, new properties are commonly acquired as the result of change in some property: charge, current, induced magnetic field, etc. Here, the new property becomes a new dimension. For the frequency of oscillations, the formula is $f = 3\lambda^{-1}$ [1/s], where λ is wavelength in [m]. Here, the velocity of light is equal to 3 (the 10^8 mathematical degree is omitted since it is a question of scale of measurement only).

Therefore, the analogy between our dimension and frequency gives us: $p = 3/r$ [1/m] and $f = 3/\lambda$ [1/s]. The 3-dimensional radius is represented by $R = \lambda/p = r/3$ [m] and time as a period of oscillation has the relationship: $T = \lambda/f = \lambda^2/3$ [s]. Time can be considered to be equivalent to R if the linear radius r and the wavelength λ are the same. This is a condition for the spatial resonance effect. Note that in this analysis, ‘m’ and ‘s’ are unlike when length is measured in meters in our dimension. However, for a new dimension it is possible to use equal units for ‘m’ of 4th dimension and conventional ‘second’. Furthermore, light (photons) is possible in our dimension only as a process in such a spatial resonator.

Experiencing time dilation

Based on the above discussion, it is proposed that we experience changes in rate of time in our daily life. During sleep, as our energy level decreases, so it can be argued that time decreases and we ‘go’ into another dimension. Aspects of what is observed during the dream-state do not obey the rules of our familiarity of physical existence, and conventional causality – because the rate of time is different. As we start our dreaming, and as we emerge from dreaming, the recalled experiences resemble more our regular experiences. Before and after sleep, our brain frequency tends to resemble the daytime’s.

In effect, understanding our dream state’s sense of time may be a reference key to comprehending the physics and causality mechanics of time engineering.

⁴³ Calante, Pelayo and Andrew Michrowski (compilers). **The Hutchison File**. The Planetary Association for Clean Energy, 1996. p. 16-7.

⁴⁴ Hathaway, George D. *The Hutchison effect – a lift and disruption system*. In: **New Energy Technology**. The Planetary Association for Clean Energy, 1990. p. 77-103.

⁴⁵ Frolov, Alexander V. *Trilateral spacetime effect*. **Newsletter of the Planetary Association for Clean Energy**. Volume 9(2&3), April 1997. p. 10-3.

⁴⁶ Ouspensky, Pavel D. **A new model of the universe**. New York, 1971.

⁴⁷ Frolov, Alexander V. *The application of potential energy for the creation of power*. **New Energy News**. Volume 2(1), May, 1994. Space Travel Innovations

Time and planetary gravity

The Earth's mass appears to be in continual growth. 250 to 350 million years ago, our globe may have been half size – with all of the continents as one landmass⁴⁸. In ancient sediments, the natural angles of slope in sand beaches greatly exceeded those of today, indicating that gravity has on our planetary surface has increased 8-fold, several times, during the last 1.5 billion years. Yet the planet's average density may not have changed – only the acceleration of free fall^{49 50}.

There could also be another explanation possible for the change of slope of beaches. The pull of the moon may have been different in the past.

Also, the planetary magnetic fields could have increased over the millions of years, through interactions with the solar flux of hydrogen atoms. The sun is in constant explosion – production of energy differential. Earth and other planets could be responding with harmonics to compensate for the solar activity, leading to an overall increase in magnetic fields. Such a phenomenon may give the illusion that the physical body is growing larger. In other words, with time, the force of gravity would alter planetary mass and energy.

Assuming that the Earth's density has not increased, it is possible to account for, mathematically, the relative increase – growth processes – of the nuclei of terrestrial atoms, including the doubling of mass of nucleons and of electrons⁵¹. Such calculation also accounts for the emission of 2 different photons by hydrogen atoms (also known as the 'red shift' described by **E. Hubble**).

The phenomenon can be explained with the time-like and longitudinal photons described by the bi-directional 2 scalar potential functions^{52 53}. Could it be suggested that matter is gravity minus time? In other words, gravity is related to accumulation of energy differential (time) in mass.

The value of gravity varies throughout the planet, in part because of the poles and in part due to local density of matter. **Kirill P. Butusov** has noted a correlation between places of civilization and regions of greater gravity. A faster rate of evolution may be associated with such gravity zones. In these zones there would be a greater influx of scalar potentials. Time would be more 'authenticated' by these energy flows into conscious beings. Butusov reminds us that time has a 'positive energy' and flowing into nuclei of atoms or a 'negative energy' flowing out of the nuclei of atoms⁵⁴.

The outflow would be representative of gravitational energy. Longitudinal waves are known to be able to enter and to leave nuclei. Such flows of time must come from other dimensions. After all, the surface of any elementary particle separates our dimension from another. This leads to an interesting possibility in which all time-associated processes between dimensions are synchronized.

Time reconsidered

Arguments have been laid that suggest that time is equal to energy differential (including movement of light). Living systems 'consume' time as part of their consciousness and measuring processes.

⁴⁸ Kirilov, I. V. *Increase in volume of rocks is one of the reasons of tectonic deformations*. **Academy of Science of the USSR Geologist**. Volume 1, 1963.

⁴⁹ Smirnov, L. S. and Ju. N. Lubina. *On the possibility of studying the change in gravity together with geological time*. **Reports of the USSR Academy of Science**. Volume 187, Number 4. 1964.

⁵⁰ Maxlow, James. *Earth expansion – the definitive proof*. **Nexus**. Volume 8 (3), May 2001. p. 47-51.

⁵¹ Butusov, Kirill P. *Time is a physical substance*. **New Energy Technologies**. Volume 3, November-December, 2001. p. 8-13.

⁵² Bjercknes, K. A. *Vorlesungen ueber hydrodinamische fernkraefte*. Leipzig, 1900-2.

⁵³ Yarkovsky, I. O. **Universal gravitation as a result of formation of ponderable matter inside heavenly bodies**. Moscow, 1889.

⁵⁴ Butusov, Kirill P. *Time is a physical substance*. **New Energy Technologies**. Volume 3, November-December, 2001. p. 8-13.

It is possible to engineer causality. An understanding of higher-order electrodynamics is required. Techniques exist for the generation of scalar potentials. Causality technology has many applications. They include: therapeutics, energy generation, consciousness technology, inter-dimensionality, defence systems, teleportation, and of course, 'time travel'.

Appreciation is expressed for guidance in this discussion by
Thomas E. Bearden and Bernard de Montréal.

From: pacenet@canada.com
To: vman@skylink.net
Subject: Re: Genesis seems to affect time
Date: Fri, 05 Jul 2002 10:01:00 -0700 (PDT)

Could you please inform us more about the two gentlemen? Cordially, and in goodwill,

Andrew Michrowski

"Gary Vesperman" wrote back:

Andrew,

I got your article on time and its physical relationships.

I was the middle man (a friend of a friend sort of thing) who circumstantially introduced Hans Becker and Norman Howard in 1996 at the International Tesla Society Symposium, in Colorado Springs, CO. They went on to create the Genesis frequency generator which has been sold in various versions since 1997.

You ought to be interested in their www.genesistherapy.com site's statement "ELRD mixes 5 waves together to form a multidimensional field that can alter time and trap energy from other dimensions and feed that energy directly to the body. We have even created our own microprocessor chip for miniaturization."

Norm lives here in Las Vegas so I see him occasionally when I bring visitors over. In May he talked a little about some of the strange effects such as time changes sometimes observed with the Genesis frequency generator.

Gary

From: Al Jagnow <al-jagnow@uiowa.edu>
To: Gary Vesperman <vman@skylink.net>
Subject: Re: Plotnikov on the physics of gravity
Date: Fri, 05 Jul 2002 11:45:13 -0500

Interesting – the gravitational spins calculations for 4, 16, 64, etc., particles seem to be reasonable. The conclusion is that gravitational force has a 'granularity', but the jump from elementary particles to the solar system does not follow. The 'granularity' is on a quantum scale. Even an atom may be too large to be effected by the gravitational granularity. At a planetary scale, the effect is that gravity seems to be a uniform constant.

The 'granularity' is unnoticeable. Just as we do not notice the 'granularity' of water. The effect that seems to determine the orbits of planets seems to be the gravitational resonance between the different masses in the solar system. There are some orbits that are stable, and others that are unstable. Over the millennia, the planets tend to end up in the stable orbital paths.

If you think of all particles as electromagnetic waves, each particle is the result of mixing an infinite number of frequencies so that you have a beat at only a single point. Note that there will always be some residual, but it will be very close to the actual location of the particle and will go to zero quite rapidly with distance from the beat.

Thus every particle extends infinitely in all directions – even though it only has reality at a single point. the 'spin' of the particle is just whether the beat peak is positive or negative. If a positive and negative spin were combined, you would have a collapsed quantum state.

Both particles still exist, but have no 'reality'. A future quantum event could separate the particles and cause them to pop back into reality. You can think of gravity as the tendency for all particles to try to get in phase with other particles. When the particles are far apart, the force is directly proportional to the product of the masses of the particles and inversely proportional the square of the distance between the particles (Law of Gravity). When the particles are very close to each other, there are other interactions that try to prevent the phase locking. This is much as near field and far field signal strength calculations. If enough particles manage to get in phase with each other, you can get a black hole.

Interesting possibility – if you could change the phase of a single wavelength that comprises a particle, you could change the physical location of the particle. Since the phase changes appear to propagate instantaneously, it may be possible to instantaneously 'teleport' objects to any place in the Universe. (There are a few technical details that need to be worked out.... It may also require an infinite amount of power to make such a phase change...maybe not...)

So how can we profit from all of this?? Knowing that the Casimir effect is real – that we have the potential on the order of 10^{30} ergs per mm^3 and knowing that gravity is 'granular' it may be possible to design a quantum device that makes use of the 'granularity' of gravity to extract energy from our quantum ground state. Of course, on a quantum scale, the amount of available energy would also be very small – but still could be significant and you could make lots of devices.

The 'granularity' of gravity could also limit the data rate in torsion field communications. The strange thing is that gravity appears to propagate instantaneously – not at the speed of light. Do you suppose that by collapsing and uncollapsing the quantum state of a pair of particles that you could make gravitational waves??

It may be interesting to study the effect of the 'granularity' of gravity on chemical reactions. Perhaps it could help explain how some catalytic reactions work??

Do you suppose that by collapsing the quantum state of your enemies you could make them disappear? Could a terminally ill patient have their quantum state collapsed until a cure was found for their disease? (How would you 'store' a collapsed quantum state?)

Does any of this have anything to do with Transcendental Meditation?? Is the electromagnetic energy of conscious thought powerful enough to make any difference in anything?? (Yes! In the above “The DNA Phantom Effect” there is this report with accompanying photographs:

“However, the most exciting experiment in my opinion was one in which a sample of water was taken from a polluted dam in Japan and then frozen and photographed. Next, a Buddhist priest sat by the water and spent an hour in prayer. Immediately after the prayer session another sample was taken, frozen and photographed. You can see the results below.”

(However, conscious thought may be something other than electromagnetic energy. Gary Vesperman)

David (Al Jagnow's brother David Jagnow) – can this possibly relate to the remotely curing of diseases by irradiating a photograph of the person? Some of the quantum information about a person may be stored in a photograph. (Just a wild thought... maybe primitive people were right in thinking that photographs captured their souls?? Perhaps photographs capture more than we know.)

Later -- this is getting weird -- enough speculation for now.

Al

(This is me, Gary Vesperman, writing now.)

In my compilation of "Advanced Technologies for Foreign Resort Project" which is in www.padrak.com/vesperman I briefly describe Reiki healing. I originally learned Reiki healing in 1989 from a professional Reiki healer Jan Mize in Las Vegas.

Reiki healing, as I was taught by her and still continue to experiment with on sick or injured people, is where I close my eyes, rub my hands together, and mentally say to myself "The mind has no providence for limitations." If you stop to think about it, there may possibly be no other more powerful statement of a human being's potential.

I wouldn't even be doing Reiki mumbo jumbo except for my remarkable observation that nearly always people's medical problems seem to greatly diminish if not disappear in minutes. (Note I have to be careful about my wording for medical legal reasons.) Examples are headaches, a couple of very sore elbows, shortness of breath, and cancer. One lady came walking into a saloon on crutches. After an hour of Reiki holding her knee with my hands while we sat on barstools chatting (I can't remember what was wrong with it) she walked out carrying her crutches! Even I was impressed.

One of the odder Reiki phenomena I observed the healer Ms. Mize performing was that she had numerous photographs of people with medical problems spread out between two sheets of dark paper (or maybe aluminum foil?). She would then every so often do her Reiki mumbo jumbo on the photographs with the goal of remote healing. I can't remember what her results had been. I just looked in the Las Vegas phone book and noticed she still has a phone number. I haven't talked with her for about 24 years.

The statement above "... the remotely curing of diseases by irradiating a photograph of the person?" is a different version of remote healing. I seem to be a strong Reiki healer of people, in person, that is. I have never tried remote Reiki healing using photographs. As an experiment, if anybody wants to try it, snail mail me a photograph of the entire body of any person you know who has a medical problem. Along with the photograph, pick a time and date a week or so hence. At that precise time, I would do my Reiki on the photograph for about ten minutes. Then see if the person feels any difference afterwards. If possible, let's coordinate the timing over email.

By the way I vaguely remember that the Reiki healer's photographs of people had their clothes on. I have no idea whether it makes any difference to wear full body clothing or skimpy swim suits. A clue is that wearing colorful "chakra shirts" from Australia as described in <http://www.thiaouba.com/thiao.htm> seems positively to affect personal health. For example, black has been determined to be a bad color. It took two years of experimental research to determine the optimum color patterns of these "chakra" shirts. It is also known that light on the forehead affects sleeping.

Reiki healing in person is tough enough to explain as is. If remote healing is indeed demonstrable with Reiki mumbo jumbo on photographs, then how does THAT work? As indicated above, then one of the first questions to ask is what is a photograph anyway? The next question to ask is what information does a

photograph of a person include besides the image? What about videotapes, DVDs, and transferring images over the Internet? What about recording images with a digital camera? Then there are all the obvious questions of the medium of transmission, speed of transmission, etc. (For more see on page 164 above “If a photograph of a single bulb lighted with radiant energy is taken the print shows a large, dark ring, perpendicular to the base of the bulb. This ring looks like a circle of translucent black fog. It seems the light somehow reflects itself on the air, or projects a shadow of itself there.”)

Regarding the interactions of energy and living organisms, the book "The Secret Life of Plants" is highly recommended.

The aforementioned “Advanced Technologies for Foreign Resort Project” has this section pertinent to the propagation of gravity fields:

Gravimetric Sensors

The grand design for a working model of a highly directional and very inexpensive gravimetric sensor device has been developed. Its purpose will be to provide people with a way to detect large objects in space and plot their position in real time. This will make it possible to develop a baseline from which we can then extrapolate the rate at which this information is conveyed via transverse gravitational waves – expected to be greater than 1,000,000,000 times the speed of light. This will provide a cogent baseline to support the concept of superluminal velocities in data transmission via torsion field devices. This project could use some capital – probably in the \$75-100K range and has the potential to set a whole new standard for astronomical observation techniques.

(End of excerpt)

The www.genesistherapy.com site (no longer accessible except through www.archive.org) had this statement: “ELRD mixes 5 waves together to form a multidimensional field that can alter time and trap energy from other dimensions and feed that energy directly to the body.”

Andrew's article above has this: “The time machine units are spheres ranging in diameters of 30 centimeters, 1 meter, and 2.1 meters. The shells are encased with coils designed to produce convergent waves. Team leader Vadim A. Chernobrov describes converging electromagnetic waves as moving from a periphery to a central point. They are observed when a hoop is thrown into the water and inside the hoop the waves converge. If a potential is applied to do work and to initiate the energy differential process, the other reverse direction scalar (the reverse-time energy flow) must react. Thus, compensation of time – in the form of the deceleration or acceleration of the rate of time – can take place .”

(End of excerpt)

-----Original Message-----

From: Gary Vesperman <vman@skylink.net>
To: David G. Yurth <dyurth@xmission.com>
Date: Friday, July 05, 2002 8:50 AM
Subject: Microwski's article on time; Genesis affects time

Dave,
You wrote:

From : dyurth <dyurth@xmission.com>
To : "Gary Vesperman" <vman@skylink.net>

Subject : Re: Plotnikov on the physics of gravity

Date : Fri, 05 Jul 2002 08:06:05 -0600

Gary,

This guy is dynamite! Do you have an email address for him? I'd love to correspond with him, especially regarding the discussion of gravitational constants, geometricized formulations of the four "primary" field equations and such things...thanks for sending this along.

Dave Yurth

(End of Yurth's email)

Andrew Michrowski sent me his article on time which is in the attached file I am accumulating on Plotnikov. The file also has Plotnikov's address, etc. (If you get a chance, ask him how he found me. I am curious. I can't be THAT famous!)

Note that Hans Becker and Norm Howard are observing weird time-related effects with their Genesis frequency generator. Next time you are here in Las Vegas, I would like to take you over to see Norman and his Genesis. When I saw Norman last May, he said the Genesis is now programmed with frequencies for every disease known to man plus possibly even some unknown diseases.

I am going to look around my files for more stuff on time.

BTW, have you ever heard of a guy by the name of Jimmy Reiss?

Gary

-----Original Message-----

From: Gary Vesperman <vman@skylink.net>

Cc: Gordon Ziegler <unifieduniverse@olywa.net>

Date: Sunday, July 07, 2002 9:17 AM

Subject: Ziegler on gravity, inertia, and 2nd law of thermodynamics

Dear Friends,

In my July 5 email on remote healing and time travel, I had included a short discussion of Gordon Ziegler's work on two methods of neutralizing radioactivity copied as follows:

Gordon Ziegler has designed two radioactivity neutralizers briefly described as follows:

Theory of an anti-proton source and/or anti-neutron source.

Reversal of the order to disorder arrow in the second law of thermodynamics.

Both of Ziegler's methods require large, high-energy linear accelerator facilities. For 50 million dollars all aging, disease, and decay processes could be reversed in a one-mile radius.

June 16, 2002, Gordon wrote:

I still believe in these methods, and I am still endeavoring to bring them to pass. I am centering on low-power test models that we might be able to afford better, with currents as low as 1.0 microAmp, and terminal energy equal to 1.0 GeV. I am hoping to bring the costs within a \$100,000 grant. Keep up the good work.

Your friend,
Gordon

("130 Electrical Energy Innovations", www.padrak.com/vesperman, includes a long chapter on Ziegler's electrino fusion power reactor.)

Andrew's above article re time and its physical relationships may offer some clues as to how Ziegler's machines could reverse aging, disease and decay processes.

Gordon responded with the following email to which was attached Chapter 5 Gravity and Inertia, and Chapter 7 Second Law of Thermodynamics, of his book.

"From : "Gordon Ziegler" <unifieduniverse@olywa.net>
To : "Gary Vesperman" <vman@skylink.net>
Subject : Re: Plotnikov feedback - remote healing, time travel
Date : Sun, 7 Jul 2002 00:12:16 -0700
Attachment : Chapter5.wpd (112k), Chapter7.wpd (34k)

Dear Gary:

I have done some work on gravity and inertia and reversing apparent time by reversing the order-to-disorder arrow in the second law of thermodynamics. I am attaching two chapters from my books Formulating the Universe, Volumes I and II. Unfortunately the attachments are locked in WordPerfect 10. You can not read the equations in Microsoft Word. If you have the good fortune to have WordPerfect 10, you can read the whole thing. If not, maybe you can read the words in between the equations and get the gist of the articles.

These chapters are lifted out of context, which make them harder to understand. The context of the chapter on gravity and inertia is a complete aether model of special and general relativity. That may help the reader. Please spread these chapters around to your physicist friends for their comments.

Thanks.
Gordon

(Chapter 5 text is referenced but not included in the above chapter "Inertia-Less Craft and Artificial Gravity". Chapter 7 on the second law of thermodynamics is copied into the "Electrino Fusion Power Reactor" chapter in "130 Electrical Energy Innovations" in www.padrak.com/vesperman.)

From: "Bob Bass" <donquixote@radix.net>
To : (deleted)
Subject: Ziegler on gravity, inertia, and 2nd law of thermodynamics
Date: Sun, 7 Jul 2002 15:45:15 -0700
Attachment: ZieglerChap5GravityandInertia.doc (276k), ZieglerChap72ndLawofThermodynamics.doc (70k), ZieglerChap5GravityandInertia.txt (21k), ZieglerChap72ndLawofThermodynamics.txt (14k)

On briefly skimming a part of the following I get the impression that Ziegler is rediscovering the Lorentz-Larmor-Ives/Newtonian-time alternative to logically-incoherent Einstein-Minkowskian "spacetime" (as persuasively presented by Ives in "The Einstein Myth and The Ives Papers," edited by D. Turner and

R. Hazelett), as well as the 1921 A.H. Wilson (or is it H.A. Wilson? [Proc.Roy.Soc]) purely Maxwellian derivation/interpretation of Einstein's gravitational 'metric' equations re an even more logically incoherent allegedly 'warped spacetime,' as revived and extended in a recently published peer-reviewed paper by Hal Puthoff. I only wish I had time to check this out!

From: bill topping <solar_crisis@yahoo.com>
To: yman@skylink.net
Subject: Information
Date: Mon, 8 Jul 2002 07:48:39 -0700 (PDT)

Hello Gary,

The last you sent was quite interesting. Have you thought about 'magnets?' Atoms actually are magnets, and magnets warp neutrons.

Put your mind to work on some experiments.

Take care,
Bill

(Bill Topping invented a 'uranium reactor in a pail'. Gary Vesperman)

From: Trevor Osborne <wharmony@iinet.net.au>
To: 'Gary Vesperman' <yman@skylink.net>
Subject: Re: Ziegler on gravity, inertia, and 2nd law of thermodynamics
Date: Tue, 09 Jul 2002 07:59:37 +0800

Hi Gary,

Below is a copy of some comments from my friend who has studied physics and quantum mechanics for many years. I would be interested in your comments of the statement he makes about Ziegler's lack of knowledge of the Michelson/Morley experiment?

Best regards... Trevor

Hi Trevor,

Looks like the first document is written without any knowledge of the Michelson/Morley experiment which seems to prove quite conclusively there is no aether, quantum mechanics which is quite predictable of various physical phenomena also does not need there to be an aether present...

In respect of the 2nd document, my first impression is there is some confusion of charge/mass re antimatter etc, Will take a further look when I get time,

rgds
Mike

Kozyrev: Aether, Time and Torsion

Kozyrev: Aether, Time and Torsion

The Russian scientist Dr. Nikolai Kozyrev is in many ways a forerunner – the father of today's efforts to re-interpret physics in a way that does not contradict intuitive understanding. Our efforts to reconcile the inherent contradictions of the standard model of physics – firmly based as it is on Einstein's theory of relativity and quantum mechanics – have brought less than satisfying results.

See photograph of Dr. Kozyrev in Sepp Hasselberger's site http://blog.hasselberger.com/2007/05/kozyrev_aether_time_and_torsio.html. Hasselberger's site discusses other scientific topics in the following categories: cosmology, economy, science, society, space, spirituality, technology, and vortex.

Kozyrev has measured spin or torsion field effects at a time when Western science was busy smashing atoms into ever smaller fractions. He investigated time and the aether before most of us in the West ever thought of questioning the workability of our modern interpretations of the Universe.

A most welcome effort to increase our awareness of Kozyrev's outstanding work is a book chapter on David Wilcock's site, which introduces him with the following words:

Dramatic scientific evidence that all of physical matter is formed by an 'aether' of invisible, conscious energy has existed since at least the 1950s. Renowned Russian astrophysicist Dr. Nikolai A. Kozyrev (1908-1983, pronounced Ko-zir-ev,) proved beyond any doubt that such an energy source had to exist, and as a result he became one of the most controversial figures in the history of the Russian scientific community. The awesome implications of his work, and of all those who followed him, were almost entirely concealed by the former Soviet Union, but with the fall of the Iron Curtain and the advent of the Internet we are finally gaining access to 'Russia's Best-Kept Secret.' Two generations of remarkable research by thousands of Ph.D. level specialists have emerged from Kozyrev's seed findings, which completely changed our understanding of the Universe. With our prominent mention of him in this book, we hope to permanently establish his historical importance and impact to our colleagues and readers.

After having heard of Kozyrev in the 90s, I came upon his name again in a recent issue of NEXUS magazine, where a summarized version of David Wilcock's book chapter is published under the title: The Aether Science of Dr N. A. Kozyrev. That short version, published in NEXUS, is copied here:

THE AETHER SCIENCE OF DR N. A. KOZYREV

by David Wilcock @ 2006

(A more extensive version of this article can be found in http://www.divinecosmos.com/index.php?option=com_content&task=view&id=95&Itemid=36.)

Dramatic scientific evidence that all of physical matter is formed by an 'aether' of invisible, conscious energy has existed for decades.

Renowned Russian astrophysicist Dr. Nikolai A. Kozyrev (1908-83) proved beyond any doubt that such an energy source had to exist, and as a result he became one of the most controversial figures in the history of the Russian scientific community.

The awesome implications of his work, and of the work of all those who followed him, were almost entirely concealed by the former Soviet Union, but with the fall of the Iron Curtain and the advent of the Internet we are finally gaining access to 'Russia's best-kept secret'. Two generations of remarkable research by thousands of Ph.D.-level specialists has emerged from Kozyrev's seed findings, which completely change our understanding of the Universe.

An Unseen Medium of Energy

The aether's existence was widely accepted without question in scientific circles until the early 20th century, when the Michelson-Morley experiment of 1887 was co-opted to 'prove' that no such hidden energy source existed. (See above chapter "Etheric Weather Engineering" for explanation of mainstream physics' erroneous interpretation of the Michelson-Morley experiment. In the above chapter "Anti-Gravity Ether Shield", Adolph Zielinski explains what went wrong with the Michelson-Morley experiment.)

However, more recent breakthroughs involving 'dark matter', 'dark energy', 'virtual particles', 'vacuum flux' and 'zeropoint energy', to name a few, have brought reluctant Western scientists to acknowledge that there must indeed be an unseen energy medium throughout the Universe. As long as you use a benign term like the 'quantum medium' and not the forbidden word 'aether', you can talk about it in the mainstream press without much fear of ridicule.

One early example of proof for the existence of the aether comes from the respected physicist Dr. Hal Puthoff. He frequently mentions experiments from the early 20th century, conducted before quantum mechanics theory even existed, that were designed to see if there is any energy in 'empty space'. In order to test this idea in the laboratory, it was necessary to create an area that was completely free of air (a vacuum) and lead-shielded from all known electromagnetic radiation fields by using what is known as a Faraday cage. This airless vacuum space was then cooled down to absolute zero or -273°C , the temperature where all matter should stop vibrating and thus produce no heat.

These experiments proved that instead of an absence of energy in the vacuum, there is a tremendous amount of it, from a completely non-electromagnetic source!

Dr. Puthoff has often called this a 'seething cauldron' of energy in very high magnitudes. Since this energy could still be found at absolute zero, this force was dubbed 'zero point energy' or ZPE, whereas the Russian scientists usually call it the 'physical vacuum' or PV.

Established mainstream physicists Dr. John Wheeler and Dr. Richard Feynman calculated that the amount of zero-point energy in the space volume of a single light bulb is powerful enough to bring all the world's oceans to the boiling point!

Clearly, we are not dealing with some weak, unseen force but, rather, a source of almost impossibly grand power which would have more than enough strength to sustain the existence of all physical matter. In the new view of science that is emerging from aether theory, all four of the basic force fields, whether gravity, electromagnetism, weak nuclear force or strong nuclear force, are simply different forms of the aether/ZPE.

Professor M. T. Daniels found that the density of the gravitational energy near the surface of the Earth is equal to 5.74×10^{10} (t/m³). (Let us not forget that gravity would simply be another form of aether in this new model.) Prof. Daniels' finding means that drawing a sizeable 100 kilowatts of this 'free energy' power from the gravitational field dips into an extremely tiny 0.001 per cent of the natural energy that is being produced in that area. (See New Energy News, June 1994, p. 4.)

Research conducted by Dr. Nikola Tesla led to his statement in 1891 that the aether "behaves as a fluid to solid bodies, and as a solid to light and heat", and that under "sufficiently high voltage and frequency" it could be accessed – which was his hint that free energy and antigravity technologies are possible.

Let us pay special attention to Tesla's statement that the aether has a fluid-like effect when we are dealing with solid objects, as this ties in directly with the work of Dr. N. A. Kozyrev.

Rethinking Matter

In order to truly grasp Kozyrev's work and related findings, certain new analogies for physical matter are required. Kozyrev's work forces us to visualize all physical objects of matter in the Universe as if they were sponges submerged in water. In this analogy, we should consider the sponges as having remained in water for a long enough period of time that they are completely saturated. Bearing this in mind, there are two things we can do with such sponges underwater: we can decrease the volume of water that they contain or increase it by very simple mechanical procedures.

1. Decrease: If a submerged, saturated sponge is squeezed, cooled or rotated, then some of the water inside of it will be released into its surroundings, decreasing its mass. Once the sponge is no longer disturbed, the pressure on the millions of tiny pores is relieved, causing it again to absorb water and expand back to its normal resting mass.

2. Increase: We can also pump more water into the sponge in its rest state, such as by heating (vibrating) it, thus causing some of the pores to expand with more water than they can comfortably hold. In this case, once we relieve the added pressure, the sponge will naturally release its excess water and shrink back down to its normal resting mass.

Though it would seem impossible to most people, Kozyrev showed that by shaking, spinning, heating, cooling, vibrating or breaking physical objects, their weight can be increased or decreased by subtle but definite amounts. And this is but one aspect of his amazing work.

Dr. Kozyrev's Background

Since the Western world is largely uneducated about Kozyrev, some biographical and research information is in order. Far from a being a 'crank' or 'crackpot' scientist, he was in fact considered one of the pre-eminent Russian thinkers of the 20th century. Kozyrev had his first scientific paper published at the tender age of seventeen, and other scientists were amazed by the depth and clarity of his logic. His main work was in astrophysics, where he studied the atmospheres of the Sun and other stars, the phenomenon of solar eclipses and radiation equilibrium. By age twenty he had already graduated from the University of Leningrad with a degree in physics and mathematics, and by age twenty-eight he was widely known as a distinguished astronomer who had taught at several colleges.

Kozyrev's abundant life took a most unfortunate and difficult turn in 1936, when he was arrested under the repressive laws of Josef Stalin, and in 1937 he began 11 torturous years enduring all the known horrors of a concentration camp. In this state, he mused deeply upon the mysteries of the Universe, paying attention to all the patterns that exist in life, wherein so many different organisms show signs of asymmetry and/or spiraling growth. From his illuminated observations, Kozyrev considered that all life-forms might be drawing off an unseen, spiraling source of energy, in addition to their normal properties of gaining energy through eating, drinking, breathing and photosynthesis.

Kozyrev theorized that things such as the direction of a shell's spiraling growth and which side of the human body will contain the heart are determined by the direction of this flow. Should there be an area somewhere in space-time where the energy flow spiraled in the opposite direction, then he would expect shells to grow in the opposite direction and the heart to be in the opposite side of the body cavity. Kozyrev suggested that life couldn't form in any other way, because it is actively drawing off this spiraling energy to sustain itself and must therefore follow its proportions every step of the way. In this sense, we can think of the skeletal system as an 'antenna' for this energy.

When Kozyrev was finally rehabilitated from the prison camp in 1948 and could return to his field of expertise, he made many predictions about the Moon, Venus and Mars, which were validated by Soviet space probes more than a decade later. This then earned him the distinction of being a major pioneer in the Soviet space race. In 1958, Dr. Kozyrev again aroused worldwide controversy by proclaiming that the Moon exhibits volcanic activity in the Alphonsus crater.

US Nobel Prize winner Dr Harold Urey was among the small group who believed that Dr. Kozyrev's theory of volcanic activity on the Moon is correct, and he urged NASA to conduct an investigation. As a direct result, NASA launched the enormous Moon Blink project, which later confirmed Dr. Kozyrev's assertions by finding significant gas emissions on the Moon.

However, not all of Kozyrev's work was quite so readily assimilated into the mainstream world of NASA.

The Science of Time

In the winter of 1951-52, Dr. Kozyrev began his foray into the world of exotic physics, with the first of what became an exhaustive series of 33 years' worth of very intriguing and controversial experiments. As we said, the spiraling energy patterns in nature unveiled themselves to the initiated eyes of Dr. Kozyrev while in the concentration camp. His 'direct knowledge' informed him that this spiraling energy was in fact the true nature and manifestation of 'time'.

Obviously, he felt that 'time' as we now know it is much more than just a simple function for counting duration. Kozyrev urges us to try to think of a cause for time, something tangible and identifiable in the Universe that we can associate with time.

After pondering this for a while, we see that time is ultimately nothing but pure, spiraling movement. We know that we are tracing a complex spiraling pattern through space thanks to the orbital patterns of the Earth and solar system.

And now, 'temporology', or the science of time, is under continual active investigation by Moscow State University and the Russian Humanitarian Foundation, inspired by Dr. Kozyrev's pioneering work. On their website, they state:

"In our understanding, the 'nature' of time is the mechanism [that brings about] appearing changes and occurring newness in the world. To understand the 'nature' of time is to point to ... a process, a phenomenon, a 'carrier' in the material world whose properties could be identified or corresponded with those of time."

This may seem strange at first glance, since a tree falling in your yard could be seen as a result of a strong wind, not of the 'flow of time'. However, you must then ask yourself what caused the wind to blow. Ultimately, the motion of the Earth on its axis is most responsible. Hence, all changes are caused by some form of movement, and without movement there can be no time.

Several of the scholars whose papers are published through the Russian Institute of Temporology agree that if Kozyrev had changed his terminologies and use of the word 'time' to more common scientific terms such as 'the physical vacuum' or 'the aether', then many more people would have been able to understand his work sooner in the ensuing years.

Torsion Physics

In 1913, Dr. Eli Cartan was the first to demonstrate clearly that the 'fabric' (flow) of space and time in Einstein's general theory of relativity not only 'curves', but it also possesses a spinning or spiraling movement within itself known as 'torsion'.

Most people are unaware that it is now generally accepted that the space surrounding the Earth and perhaps the entire galaxy has 'right-handed spin', meaning that energy is influenced to spin clockwise as it travels through the physical vacuum.

According to Sciama et al, static torsion fields are created from spinning sources that do not radiate any energy. However, once you have a spinning source that releases energy in any form, such as the Sun or the centre of the galaxy, and/or a spinning source that has more than one form of movement occurring at the same time, such as a planet that is rotating on its axis and revolving around the Sun at the same time, then dynamic torsion is automatically produced. This phenomenon allows torsion waves to propagate through space instead of simply staying in a single 'static' spot. Thus, torsion fields, like gravity or electromagnetism, are capable of moving from one place to another in the Universe.

Furthermore, Kozyrev proved decades ago that these fields travel at 'superluminal' speeds, meaning that they far exceed the speed of light. If you can have an impulse that moves directly through the 'fabric of space-time', travels at superluminal velocities and is separate from gravity or electromagnetism, you have a significant breakthrough in physics – one that demands that a 'physical vacuum', 'zero-point energy' or an 'aether' must really exist.

Torsion Field Experiments

Dr. Kozyrev's experiments began in the 1950s and were conducted since the 1970s with the ongoing assistance of Dr. V. V. Nasonov, who helped to standardize the laboratory methods and the statistical analysis of the results. Detectors using rotation and vibration were specially designed and made that would react in the presence of torsion fields, which Kozyrev called the 'flow of time'.

It is important to remember that these experiments were conducted under the strictest conditions, repeated in hundreds or in many cases thousands of trials and were written about in extensive mathematical detail. They have been rigorously peer-reviewed, and Lavrentyev and others have replicated the results independently.

Going back to our earlier analogy, we said that matter behaves somewhat like a sponge in water. If we do something to disturb the structure of the sponge, such as squeeze it, spin it or vibrate it, then it will release some of its water back into its environment.

Over the years, all of the following processes were discovered to create a 'time flow' of torsion waves in the laboratory, due to their disruption of matter in some form: the deforming of a physical object; the encounter of an air jet with an obstacle; the operation of an hourglass filled with sand; the absorption of light; friction; burning; the actions of an observer, such as a movement of the head; the heating or cooling of an object; phase transitions in substances (frozen to liquid, liquid to vapour, etc.); dissolving and mixing substances; the fading death of plants; nonlight radiation from astronomical objects; and sudden changes in human consciousness.

Other than the perplexing final item related to consciousness, we can readily see how each process is disturbing matter in some way, thus causing it to absorb or release minute amounts of its aetheric 'water', which fits perfectly with our sponge analogy.

Even more importantly, the fact that strong emotional energy could also cause a measurable at-a-distance reaction has been repeatedly documented not just by Dr. Kozyrev but many others, and this is where our concepts of psychic phenomena and consciousness come into the picture.

Such concepts became even bigger news after the September 11, 2001 terrorist attacks on the United States, when Dean Radin and his team at the Institute of Noetic Sciences were able to measure a tremendous change in the behavior of computerized random-number generators surrounding the time immediately before and after the attack.

The data show that, somehow, a change in the mass consciousness of humanity affected the behavior of electromagnetic energy in computer circuits around the world, especially those computers nearest to North America. This suggests that torsion waves and consciousness are essentially identical manifestations of intelligent energy.

Aiding and Shielding Torsion Effects

Returning to the more 'comfortable' arena of physical matter, Kozyrev's work showed that torsion fields can be absorbed, shielded or sometimes reflected. For example, sugar can absorb, polyethylene film and aluminum can shield, and other forms of aluminum or mirrors can reflect.

Kozyrev found that in the presence of this energy flow, objects that are rigid and inelastic show weight changes. Whereas flexible, elastic objects show changes in their elasticity and/or viscosity. Kozyrev also showed that the weight of a spinning top changes if it is vibrated, heated or cooled or if it has an electric current passed through it.

The Einstein-Cartan theory, which in 1913 established a theoretical basis for the existence of torsion fields, predicts that there is either right-handed or left-handed torsion in space, depending on the location. Subsequent discoveries in quantum physics related to the notion of 'spin' confirmed that 'electrons' have 'right-handed' or 'left-handed' spin, meaning that movement will be detected that is either clockwise or counterclockwise. All atoms and molecules maintain varying degrees of balance between right- and left-handed spin. Kozyrev determined that strongly right-handed molecules such as sugar can shield torsion effects, whereas strongly left-handed molecules such as turpentine strengthen them.

Subsequent Russian investigations also determined that common polyethylene film acts as an excellent shield for torsion waves, and these findings were used in many different experiments such as those discussed by Dr. Alexander Frolov.

For more data on Kozyrev's experiments, see David Wilcock's complete paper, "The Breakthroughs of Dr N. A. Kozyrev", with illustrations and endnotes, on his site.

About the Author:

David Wilcock is a professional lecturer, filmmaker and researcher of ancient civilisations, consciousness science and new paradigms of matter and energy. His upcoming film "Convergence" unveils the proof that all life on Earth is united in a field of consciousness.

David is also the subject and co-author of “The Reincarnation of Edgar Cayce?”, which explores the remarkable similarities between David and Edgar, features many of David's most inspiring psychic readings, and reveals documented NASA scientific proof of interplanetary climate change and how it has a direct impact on our DNA. Visit his website at <http://www.divinecosmos.com>.

The Magnetic Force is Faster than Light

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Introduction

In 1978, the Max Planck Institute for Astrophysics publicly announced: “Celestial Objects Believed Exceeding Speed of Light ... the first at 5 times light speed and the second at 8 times that speed.”⁵⁵ Multiple-light-speed spectra have also been demonstrated in the laboratory. To further develop the Phase-Conjugate-Resonator (PCR), Nikola Tesla's most enigmatic discovery, the author models a topological-time constraint that can uniquely define a system of past-directed and future-directed wave-fronts in terms of a hypothetical “T-plasma.”

Unlike conventional wave/particle accelerators that are limited by relativistic effects, the PCR Tesla Coil is a relativistic force magnifying transmitter with no theoretical limit to its effective coherence length. Describing an advantage of this discovery, Tesla said: “... **power virtually in unlimited amounts** could be conveyed through the earth with an efficiency as high as ninety-nine and one-half per cent. The mode of propagating the currents ... is most extraordinary considering the speed of the electrification of the surface.”⁵⁶ Experiments that can evoke twice light speed T-plasma structures are described in the section entitled “T-Waves.”

In the early 1950s N.A. Kozyrev reported to the Academy of Sciences of the USSR, “immediate communication and information transmission appear to be possible.”⁵⁷ An experimental breakthrough and more had been demonstrated. (See “Causality Mechanics”.) Today it is believed that Soviet Tesla-type Magnifying Transmitters ionize their near-field structures to influence long-range T-plasma **coherence**. This Soviet version of Tesla's “Star Wars” defense system can induce remote instrument failures. In one reported instance, ball lightning apparently materialized inside a US military transport aircraft.⁵⁸

T-plasma systems cohere zero point energy because the condensed topology of time is given a structure which directs the forces of action and reaction to different boundary locations. Unlimited PCR gain allows the action to be geometrically localized at the transmitter so the reaction at any given receiver is undiminished. Superluminal electrification appears with magnetic monopole-like soliton trains whose wave-function transcends the symmetry of charge-parity and time-reversal invariance.⁵⁹ A later section, entitled “Cold Nuclear Fusion” reports: ‘frozen’ electric charge is produced by coherent fusion, as four atoms of aluminum fuse into one atom of silver.

⁵⁵ New York Times, December 20, 1978. From the Max Planck Institute for Astrophysics

⁵⁶ Tesla, N., World system of wireless transmission of energy, Telephone and Telegraph Age, October 16, 1927

⁵⁷ Kozyrev, N.A., Possibility of experimental study of the properties of time, Joint Publications Research Service, report No. 45238, May 2, 1968

⁵⁸ Private communication: Eyring Research Institute

⁵⁹ Fitch, V.L., The discovery of charge-conjugation parity asymmetry, Reviews of Modern Physics 53(3):367 (1981)

Background

Dr. Nikola Tesla's quotes are abstracted from his 1927 Telegraph & Telephone Age article -- "World System Of Wireless Transmission Of Energy":

The mode of propagating the currents from the transmitter through the terrestrial globe is most extraordinary considering the speed of the electrification of the surface. The wave starts with a theoretically infinite speed, slowing down first very quickly and afterwards at a lesser rate ... The mean surface speed is thus about 471,200 kilometers per second -- fifty seven per cent greater than that of the so-called Hertz waves -- which should propagate with the velocity of light if they exist ... in the system I have devised only force is conveyed to all points of the earth, the energy itself travelling in definite paths determined beforehand. Perhaps the most wonderful feature is that the energy reaches the receiver **without the slightest dispersion**, so that an incomparably greater amount is collected than is possible by radiations.⁶⁰

This Tesla claim has remained an enigma because prevailing scientific thought has not considered that Tesla's PCR-coil could **topologically structure vacuum impedance**. Yet, there are compelling reasons for assuming that Tesla formulated his own theory of vacuum impedance dynamics in terms of his familiarity with the following turn-of-the-century concepts:

- a) Riemann's revolutionary mathematical principles regarding gravitation and light phenomena as forms of electromagnetism;⁶¹
- b) Maxwell's source free solutions for equations describing electromagnetic wave-propagation in vacuum;⁶²
- c) Lorenz' determination of the distance invariance of the electron's spin/charge coupling, i.e., no alteration even at infinite distance between charges;⁶³
- d) Lorenz' derivation of the pondermotive force, F , acting on the vacuum as the derivative of electromagnetic momentum, m , with respect to time;⁶⁴ and finally,
- e) Plateau's minimal surface geometric solutions, with infinitely extendable negative curvature.⁶⁵

Thus, Tesla had available all the elements needed to describe the fundamental character of a **shock-wave-generated -- phase-conjugate-resonant solitons**.

The Magnifying-Tesla-coil (PCR)'s secret remains concealed because magnetic-spin is still considered an abstraction. However, electromagnetic momentum may be regarded as a gyroscope-like force illustrating a reaction displaced by a quarter turn in the space domain only. Here, response is immediate so time (phase) remains unaffected. The phase-conjugate of a multi-tone-chord contains the complex-conjugate of only the space components. Further, the time components (phases) remain unchanged without regard for the number of amplifying round trips.⁶⁶ I have made the remarkable discovery that **time related forces** may become topologically decoupled from any time dimension deformation. With unlimited PCR gain, relativistic time deformation coheres the supplementary forces of action and reaction. I call the process **faser** – Force Amplification by Stimulated Energy Resonance.

⁶⁰ Tesla, N., World system of wireless transmission of energy, Telephone and Telegraph Age, October 16, 1927

⁶¹ Riemann, B., Gesammelte mathematische Werke und wissenschaftlicher Nachlass, second edition, Ed.,H. Webber and R. Dedekind: B.G. Teubner (1852)

⁶² Maxwell, J.C., Treatise on Electricity and Magnetism, Dover Publications, Inc., New York (1891)

⁶³ Thomson, J.J., The cathode rays, Philosophical Magazine 44(5):312(1897)

⁶⁴ Lorentz, H.A., Electromagnetic phenomena in a System moving with any velocity less than that of light, In: The Principle of Relativity, Lorentz, H.A., Einstein, A., Minkowski, H., Weye, H., Dover Publications, Inc. p.9-34 (1952)

⁶⁵ Hilbert, D., Cohn-Vossen, S., Geomeuy and the Imagination, Chelsea Publishing Co., New York, p.270-271 (1952)

⁶⁶ Fisher, R.A. (Ed), Optical Phase Conjugation, Academic Press (1983)

Solitons

The faser's impedance geometry amplifies relativistic-time dilation because multiple-light-speed shock-waves create self-organizing soliton trains. "A recent finding is that solitons may appear as massive elementary particles ... They are waves that do not disperse or dissipate but instead maintain their shape indefinitely."⁶⁷

The soliton model, initially developed by D.J. Korteweg and H. de Vries in 1895, expresses similitude connecting structures with dimensions that range from astronomical to subnuclear in scale.

Shock-waves soften and increase in length only near the soliton's topological center. This mechanism compresses waves in the **past-directed** and **future-directed** wave fronts so their relative energy increases. The natural dispersion effect – the relative speeding up of higher energy components – allows the trailing end to **dilate local time** and jump ahead of the leading end (with respect to absolute time). The magnetic monopole-soliton grows in mass and shrinks in size by extending its correlation length.⁶⁸ When the overall mass-equivalent energy exceeds 173 proton masses, radioactivity becomes coherent and there is a cross over of barion charge (antimatter dominating over matter). Because radiation cannot escape its '**topological wave-guide**' this soliton grows by deforming the topology of time to negate entropy by condensing electronic charge.⁶⁹ The quantized internal vacuum structure collapses in unique sequences which are determined by the superluminal shock-wave's impedance geometry.

The well circulated debate between Loschmidt, the proponent of negentropy, and Boltzmann, who expressed the still popular 'entropy death' view, ended with Boltzmann's challenge: "You reverse the momenta!"⁷⁰ In 1899, twenty-seven years later, the existence of negentropy was demonstrated by Tesla. His "Last Shall Be First" conjugate-mirror effect was able to cohere topological time to negate entropy.⁷¹ The classic example is seen in the water drop "**Phoenix Principle**" which displays time-reversed momenta and is illustrated by lapse-time photographs shown in Figure 1.

A drop of water, dyed red, has been released from a height of several inches so it strikes near the center of a basin filled with water dyed blue. In the relative time frame of the colliding red drop, atomic momenta reverses with respect to absolute time.

The falling oval-shaped water drop (Figure 1a) can lose its geometric structure but not the maintenance of a minimal topological surface. After a brief "**end-zone-pause**" (Figure 1b) a new red drop is born (Figure 1c). The Phoenix effect (Figure 1d) displays time-reversed-momenta, because the **rising round-shaped** drop replays the oval shape **topological-memory backwards** in the same G-field gradient. This natural example of topological continuity is possible because water is a **liquid-crystal**. The drop's impact created shock-waves that bridged time to predetermine its future critical laminar flow.

⁶⁷ Rebbi, C., Solitons, Scientific American 240 (2):92 (1979)

⁶⁸ Mikhailov, V.F., The magnetic charge phenomenon on ferromagnetic aerosols, Physics Letters 130 (6):331 (1983)

⁶⁹ Greenberg, J.S., Greiner, W., Search for the sparking of the vacuum, Physics Today 35(8):24 (1982)

⁷⁰ Brewer, R.G., Hahn, EL., Atomic memory, Scientific American 251 (6):50 (1984)

⁷¹ Prigogine, L., From Being to Becoming, W.H. Freeman & Co., San Francisco (1980)

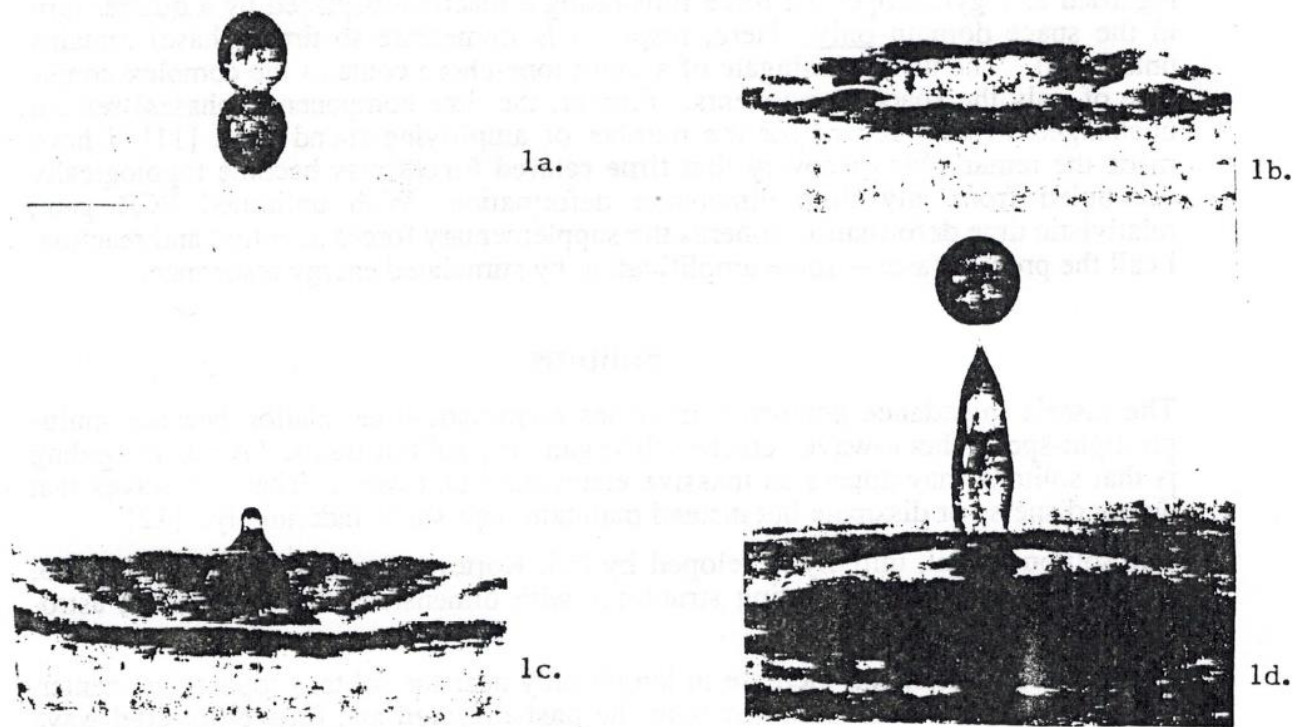


Figure 1. The Phoenix Principle water drop effect (see text)

Compared to its gravitating oval shape, the rising round shape confirms that gravitational decoupling has occurred. This faster-effect has stored the gravitational gradient's energy in orthogonal-time-structured modes. This is a process of continuous deformation of a minimal topological surface which in the case of a 2-sphere topology must contract to a conjugate mirror image that emerges as an echo in a 3-sphere topology. In the context of such **anti-gravitating momentum-translators**, Tesla states: "One of the most important uses of wireless energy will be undoubtedly for the propulsion of flying machines to which power can be readily supplied without ground connection ... I am developing a novel type of flying machine which seems to be well suited for meeting the present necessity of a safe, small and compact 'aerial flyer' capable of rising and descending vertically."⁷² I believe Tesla was referring to his 'U tron' momentum transformer. (Gary Vesperman asks "If airplanes could be remotely powered, why not remotely power cars, trucks, locomotives, ships, drones, and generators for buildings?")

Complementing the above Phoenix Principle similitude, which exemplifies time-reversed momentum, Scientific American carried the front cover feature "Time-Reversed Light" in its January 1986 issue.⁷³ This emerging science is based on an optical model that allows for time-reversal. Dispersion can be completely eliminated when the path that separates cause from effect is stimulated into a T-plasma energy-resonance. In other words, the vacuum's impedance can be bounded between a PCR 'mirror' that does not reverse (phase) time and a normal mirror that does.⁷⁴ Any dispersion experienced by future-directed shock wave fronts is canceled when past-directed shock wave fronts set up the T-plasma structure and are transformed as they **jump forward one pi-radian**. This is equivalent to reversing coherent thermodynamic time so as to completely cancel round-trip dispersion.

⁷² Tesla, N., World system of wireless transmission of energy, Telephone and Telegraph Age, October 16, 1927

⁷³ Pepper, D.M., Applications of optical phase conjugation, Scientific American 254 (1):74 (1986)

⁷⁴ Giuliano, C.R., Applications of optical phase conjugation, Physics Today 34(4):27 (1981)

T-Waves

Well documented time-wave (T-wave) experiments were conducted in 1977. A fundamental frequency of 30 megacycles was chosen to scale the collective spin-wave structure for convenient measurement. The Magnifying PCR Tesla-coil was driven by a Tektronix FG 504 function generator. With respect to the drive signal, the detected vacuum fluctuations were phase-locked. Our oscilloscope connections were '**time-isolated**' by optical coupling. The vacuum impedance (air core) probe consisted of a 15-cm 12-turn coil within a 25-cm guarding enclosure (to ground space-charging currents). When ungrounded, space charge accumulates and this **terminates T-plasma coupling** with the interior probe.

Phase-shift (time) and attenuation (decay) degrade all light-speed-limited signals. The T-wave signal showed no such loss. In all locations and orientations the receiver always registered the same wave shape. There was neither phase-shift nor apparent attenuation except in discrete **end-zone-pauses**. These quantized **T-wave fluctuations** were less than 30 cm long and repeated in ten-meter intervals (twice before reaching the far end of our laboratory). The ionizing loops of a large amplitude sine-wave occur at 1/2 wave intervals so ten meters is twice light speed for the 30 Mhz signal.

My experience with Tesla's Magnifying Transformer began in 1939 with the acquisition of a **genuine** Tesla-coil. This anomalous charge-amplifier consisted of a concentric pair of self-tuning basket-weave (caduceus) coils encircling the phasing coil whose cross-axis alignment adjusted the magnetic-vortex tuning. The anomalous charge amplification appeared intractable until N.A. Kosyrev's study of causality and time made meaningful measurement apparent.⁷⁵ By analyzing the ratios connecting a scalar (root-mean-square) measurement to vector (synch hronous half-cycle-average) measurements, the vacuum separation of action and reaction forces have been studied.

A fundamental test of electrification speed with a calculable **conduction-bound** geometry is possible. We use a horizontal loop split by a vertical electric shield to demonstrate the superluminal (current) propagation of a magnetic **impulse**. The oscilloscope connection grounds the vertical shield and assure symmetry for simultaneous monitoring of the impulse currents obtained at opposing ends of this horizontal magnet-wire loop. The required **nanosecond rise time** impulse signal is obtained from an avalanche-pulse generator. In all tests the observed multiple-light-speed spectra supports our T-wave theory.

Causality Mechanics

"ON THE POSSIBILITY OF EXPERIMENTAL INVESTIGATION OF THE PROPERTIES OF TIME"

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Part 1. Theoretical Considerations

The course of time must be defined with respect to some invariant. The absolute value of the time course can be obtained when the absolute difference between the future and the past is connected to the absolute difference in space properties. In space there are no differences in directions but there exists an absolute **difference between the right and left**, although these meanings themselves are quite conventional. Hence the course of time should be determined by a value having the meaning of the linear speed of rotation. From this fact it follows that C_2 cannot be equal to the velocity of light C_1 which is an ordinary scalar. From the pseudo-

⁷⁵ Kozyrev, N.A., Possibility of experimental study of the properties of time, Joint Publications Research Service, report No. 45238, May 2, 1968

scalar property of the course of time the basic theorem of causality mechanics follows. **The World having an inverted course of time is equivalent to our World reflected in a mirror.** ...

Up to recent time this identity was postulated also in atomic mechanics, where it was denoted as the law of conservation of parity. However, the investigations of weak interactions in nuclear processes made by Lee and Yang have led to experiments which have shown the faultiness of this law. This result is entirely natural with respect to the real existence of the directivity of time, which is again confirmed by direct experiment. ...

For the arrangements of these experiments it is necessary to know first the values of the effects expected which depend on the value of C_2 . The numerical value of C_2 can be estimated from the dimension relations. The only universal constant which could be considered as a pseudo-scalar is Planck's constant h . In fact its dimension is the moment of the quantity of motion and it determines the spin of elementary particles. Now, using Planck's constant and an arbitrary scalar universal constant, a quantity has to be found which has a dimension of velocity: It can be easily proven that

$$C_2 = \alpha \text{ times } e^2/h = \alpha \text{ times } 350 \text{ km/s} \quad [7]$$

represents the only combination of such a kind. Here e is the charge of an elementary particle, and α is a certain dimensionless coefficient.

Part II. Experiments Investigating the Properties of Time and Basic Conclusions

... Theoretical considerations show that the experiments investigating causality links and the course of time should be carried out with rotation-body gyroscopes. ... The heretofore made experiments permitted us to give the precise value of C_2 :

$$C_2 = +700 \text{ +/- } 50 \text{ km/s in the left coordinate system.} \quad [8]$$

This value makes the links between the course of time and other universal constants probable, by formula [7] with $\alpha = 2$. Then Sommerfeld's dimensionless fine-structure constant becomes simply a relation of the two speeds C_2/C_1 , each is realized in nature.

The experiments with gyroscope rotation on the balance gave a new principle result. It appears that supplementary forces of the action and reaction can be located at different points of the system -- on the balance pedestal and on the gyroscope. A pair of forces which move the balance beam is obtained. Therefore, **time possesses not only energy but also an angular momentum which can be transferred to the system.** ... [The emphasis is ours.]

When the cause and the consequence are interchanged the direction of rotation is changed in relation to them, i.e., the direction of eigenvector \mathbf{j} . Therefore, according to formula [6] an interchange of the sign occurs in the supplementary forces. In usual mechanics, forces never depend on the source of vibrations and what is the consequence. In causality mechanics, when observing the directions of supplementary forces, it can be immediately ascertained from where the cause of vibrations originates.

The ... change in the weight of the body occurs by a jump ... quantization of effects was obtained in all experiments. It should be pointed out that there was yet another interesting effect observed on the balance which so far has remained unexplained. The energy of vibrations, which is necessary for exciting the step, depends on the azimuth of the balance beam. **The energy is minimum when the load is placed to the South and maximum when it is placed to the North.** ... The experiments confirm the existence of mutual interaction between material systems by means of time. This interaction does not transfer the momentum, in

other words it does not propagate but appears immediately in the other material system. In this way an **immediate communication and information transmission appears to be possible.**⁷⁶ [The emphasis is ours.]

T-Plasma

The direction of thermodynamic time, like Brownian motion, is normally unknown. To negate entropy, our T-plasma model requires geometric structures that dimensionalize time. Viz., with regard to longitudinal, transversal, radial and global time respectively. There can now be only two possibilities for the entropy flow: no change or a pi-radian change. It can be shown how the topology of time can be warped so as to **double** or **cancel** momentum's 1/2 multiplier. Doubled-reciprocal phase-conjugate-resonance depends on amplifying geometric deformation to **time-lock its T-plasma vacuum fluctuations**. The initiating sequence makes a 1/4 pi-radian twist into the complex plane where time can be structured as a thermodynamically reversible process. The subsequent sequence makes a 1/4 p-radian twist back into the domain of irreversible thermodynamic time. Negentropy is assured by the '**T-gate**' which controls the mixing of counter-rotating T-plasma structures.

With coherent motion the direction of thermodynamic time is no longer random, so its entropy can be reversed. Vacuum-impedance dynamics can be controlled with existing (nanosecond) switching-regulators because space-time's nominal impedance is 377 ohms (120 pi for the fundamental-harmonic electrification wave speed). Once started, the balance between a soliton's system of **additive** (vector) and **multiplicative** (scalar) energies is determined by information enhancement during the **end-zone-pause** where the mixing of counter-rotating pseudo-scalar fields dilate time. The scalar force, being timeless, persists independent of the oscillating space-time distortions. As a result, the vector-force can be launched and recaptured on alternate half-cycles. Forces of action and reaction, far from thermodynamic equilibrium, can be localized at different boundary points of the system because metrical properties can vanish while the **extendable minimal topological surface remains invariant**, i.e., undergoes no topological deformation.

Successive (half-period-average) vector-forces can alternate between on and off with faser-induced '**gauge-variance enhancement**'. The triple-converging phase boundary in the impedance-transforming wake of these superluminal shock-waves 'solidifies' electronic charge (see "Ball Lightning" below). Such a time-structured '**impedance geometry**' connects the afore mentioned counter-rotating pseudo-scalar field surfaces. The allowed **infinite extension** without topological deformation **introduces time dilation** which coheres gauge-variance during the end-zone pause. For this reason the triple-converging phase-boundaries are always time-locked at the mixing of counter-rotation. T-plasma effects have such far reaching implications that FASER® has become the experimental vehicle for studying electromagnetic momentum-control and negentropic machines in general.⁷⁷

Ball Lightning

As already alluded to, I have found that Tesla's parametric-vacuum technology must be based on a topology that is compatible with the shock-wave structure which transports the Magnifying PCR (Tesla-coil) force. Apparently in this regard Tesla states: "I have employed it in any investigations of the constitution of matter and radioactivity, published from 1896 to 1898 in the Electrical Review in which it was demonstrated, prior to the discovery of radium."⁷⁸ There is circumstantial evidence that Nikola Tesla harnessed the supplemental forces of gravitating motion, radiation contraction, and cold nuclear fusion.

⁷⁶ Kozyrev, N.A., Possibility of experimental study of the properties of time, Joint Publications Research Service, report No. 45238, May 2, 1968

⁷⁷ Alfven, H., Cosmogony as an extrapolation of magnetospheric research, Space Science Reviews 39:65 (1984)

⁷⁸ Tesla, N., World system of wireless transmission of energy, Telephone and Telegraph Age, October 16, 1927

My ongoing investigation of cold aluminum fusion began in 1958 when I came upon the essential dimensions. Namely, upon firing up a correctly dimensioned configuration with only a **7-joule** test signal, the stimulated energy resonance did not self-limit or decay as expected. The energy coherence grew so fast that the wave-canal failed explosively, creating ball lightning-like 'frozen' electricity. After rising a few inches, these brilliant 'points' slowed to a stop, apparently reversing spin, as they 'liquified' to drift down and bounce gently before evaporating.



Figure 2. Aluminum wave guide section showing perforated structure featuring repetitive holes at full-wave intervals. (twice light speed)

Figure 2 is a magnified section of the .0025" (1/4 wave) thick aluminum wave-canal that launched this organized plasma. Selective vaporization of the aluminum produced tortuous paths featuring dendritic branching at .010" intervals. This suggests twice light-speed T-plasma structure, as in previous experiments (based on the 1.2 tera hertz, 1/4 wave resonance). It is suggested that a magnetic-monopole soliton resonance was created initially by structuring zero-point-energy, and finally by bringing **virtual charge** into existence – thereby defining the **triple-converging phase boundary** that 'freezes' electric charge.

Cold Nuclear Fusion

It has been repeatedly demonstrated that coherent electromagnetic radiation is produced as four atoms of aluminum fuse into one atom of silver. Unlike the super radiant (thermonuclear) fusion of hydrogen into helium, T-plasma coherence requires cold nuclear fusion. Data from the Pioneer-Voyager missions suggest that Saturn's structure of rings underwent a 2/3 contraction upon solidification from a former ionized state.⁷⁹ An analogy is suggested by the decay of ionization in the clathrate crystal-structure that provides our impedance matrix. Here, stimulated excess entropy-production results in the fusion of aluminum into silver and the release of 'frozen' electronic charge.

⁷⁹ Alfvén, H., Cosmogony as an extrapolation of magnetospheric research, Space Science Reviews 39:65 (1984)
Space Travel Innovations

Ongoing fusion experiments were first conducted in 1981. **Sealed reactors** that contained no silver, 21 grams of aluminum foil, and 800 grams of electrolyte, were oscillograph monitored. A recording of the 60 mv average tension maintained by the 1.4-second impulse train is shown in Figure 3. The electric output from this sealed reactor apparently arises from the **mass loss**, which exceeds one gram per month. After impulse activity and weight loss stop, the reactors can be opened and the precipitated silver removed for detailed analysis.

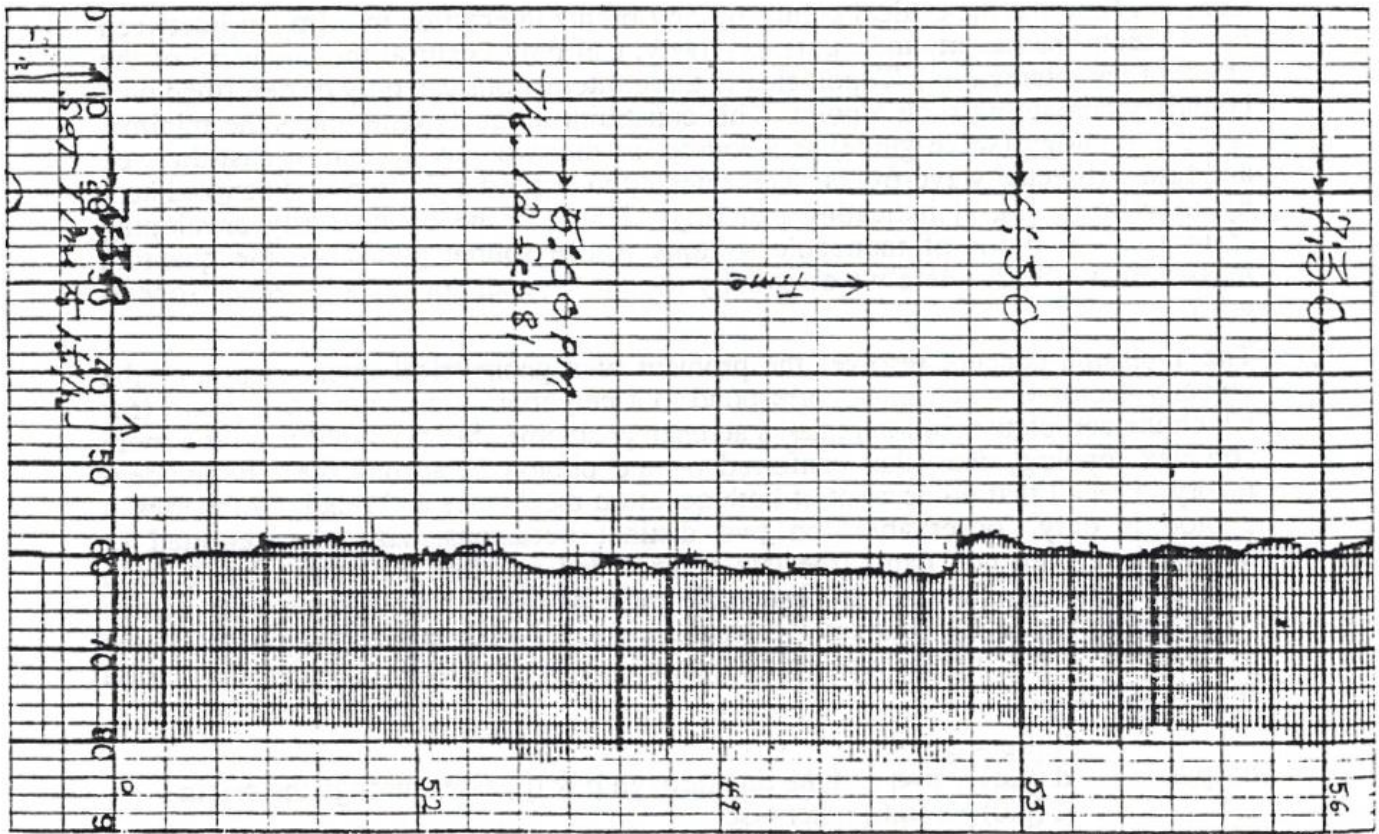


Figure 3. Electrical monitoring of cold fusion reactor showing a 1.4 second period for the coherent discharge.

Conclusion

The author has dedicated his professional life to the understanding of parametric resonance and the development of faser-technology. Electromagnetic energy-resonance is the source and sink of all cosmic matter. This venerable concept is a tradition that goes back to Faraday and Maxwell and was maintained by Wien, Abraham, Poincare, and Lorentz, among Tesla's contemporaries. Tesla's phase-conjugate parametric resonance discovery has opened the door to a unified theory of forces. From this unification, mankind will surely harness the energy and impetus of time itself.

The actual refractive index of a vacuum region expresses a certain ratio between the advanced and retarded electromagnetic forces. This relates to the fundamental velocity c and leads to a **double-limiting** procedure for measuring arbitrary electromagnetic velocities. It has been demonstrated experimentally that (electric current) magnetic force is faster than light and that **topological methods** make the study of phenomena in the neighborhood of C_1 and beyond tractable.

Appendix

Notice that the **infinitely extendible negative curvature** of a minimal surface (circle of revolution of the roulette of a hyperbola) forces a topological identification between infinite velocity and stationary motion. This monopole soliton solution is a remarkable topological Property of the Plateau nodoid problem because only solutions which are consistent with the condition of zero longitudinal momentum need be considered. This feature is evidence for a claim that Tesla would have interpreted the interior structure of a Lorentz electron ray as a monopole soliton train propagating through time as an osculating 4-sphere!

Consider first that the critical points, of the Lorentz interaction $m = [m_1, m_2]$ between two Lorentz masses m_1 and m_2 , respectively, can only occur at the boundary of the effect of the interaction. Topologically these interactions can only be deformed on a boundary containing such a point. This constraint uniquely determines the minimal surface topology (wave-guide) as a source for the two-way system of past-directed and future-directed wave-fronts. This interaction, called a T-plasma, is denoted here by $\mathbf{m} = [(m_1)^*, (m_2)^*]$ indicating that $(m_i)^*$, $i = 1, 2$, are continuously developing ‘*-masses’ or trains of monopole solitons whose source points are the quantum masses m_i , $i = 1, 2$, (here we essentially use the ‘*-operator’ as a ‘Kleene-*-operator’).

The T-plasma concept resolves the problem of a geometrical interpretation of the velocity vector v which must correspond to a neighborhood of the wave-guide (for which the complete solution remains an open problem). Such a T-plasma has a more complex topology than that conferred on the photon in accordance with modern theory. I recall that on account of both quantum mechanics and relativity theories, a photon is only ‘observable’ on two distinct occasions, viz. when emitted or absorbed, tertium non datur (the law of excluded middle). As shown by Zeeman⁸⁰ any topology for such an observable must be discrete, and hence, only admits of a binary metric. By contrast, the topology for a T-plasma may always be chosen as a non-discrete metric topological space. As an example consider the radial metric defined by:

$$d^*(p,q) = \begin{cases} 0 & \text{if } p = q \\ d(p,q) & \text{if } p=q \text{ and the line through } p \text{ \& } q \text{ passes through the origin} \\ d(p,0) + d(q,0) & \text{otherwise} \end{cases}$$

where d is the ordinary metric of the Euclidian plane. The radial metric d^* corresponds to a model in which all distances are measured along lines radiating from the origin which in the **dimension of transversal time is relativised**.

So far, there has been no attention to the fact that a T-plasma is subjected to the forces of **torsion** as a function of the topological curves described by $(m_1)^*$ and $(m_2)^*$, respectively. It can be shown that the torsion force immediately gives rise to ‘superluminal’ Plateau Problems. For example, the torsion contribution to the soliton interaction \mathbf{m} at luminal and superluminal velocities determines the **adiabatic propagation** of the fundamental masses $(m_i)^*$, $i=1,2$, respectively, as the surface described by a **right helicoid**, i.e., the surface of rotation generated by the Union of two distinct helix curves with opposite sense of direction.

It is a remarkable fact that there exists a mechanical analog to this mode of electromagnetic propagation, viz. **gyroscopic** motion. Observe that the axis connecting the north and south poles is endowed with a response-topology carrying a radial metric. A striking variation of this topological modality is described by the aforementioned Phoenix-effect of the interaction between two masses of a liquid crystal. A curious analogy emerges between the forces of capillarity and surface tension, and the forces of charge and magnetism (defined by the refraction index of a vacuum region that is T-plasma structured). Both phenomena are characterized by a **vanishing geometry**, i.e., the metrical properties vanish while the minimal topological surface remains as a process modeling **adiabatic invariance**.

⁸⁰ Zeeman, E.C., The topology of Minkowski space, Topology 6:161 (1967)
Space Travel Innovations

Acknowledgments

The author wishes to express gratitude for the financial support provided by the FASER Corporation⁸¹, which has made the continuing study of faser technology possible.

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About The Author:

Alexis Guy Obolensky, operating as both a professional scientist and entrepreneur, has been actively involved in parametric technology for a period of nearly four decades. He holds a large number of significant patents and is founder of Bromion Incorporated, a company that manufactures electro-thermic energy and power sensors for the aerospace and defense industry.

Source: Proceedings of the 1986 International Tesla Society Symposium, pp. 5-29 – 5-39,

Tapping the Torsion Fields of Space

Don Reed

The report published in the March 1997 issue of *New Energy News* by Alexander Frolov regarding the Russian research on torsion fields⁸² is potentially significant for the development of new paradigms in physics and energy science. He recounts rare replicable evidence of the first official successful demonstration, known to this author at least, of the production of certain physical effects by the engineered coupling of electromagnetic fields to torsion or vacuum fields. These findings help place on a solid rational foundation previous speculations about these hypothetical fields, predicted primarily from a theoretical model. The following is a compilation of those research findings on torsion fields which not only complement the Russian model, but help corroborate or support evidence from various other key researchers of vacuum energy, and can, perhaps, provide helpful suggestions for ongoing experimental research efforts.

The remarkable series of papers by V. De Sabbata and M. Gasperini^{83,84,85} have shown by positing a wave equation for torsion potential which is a nonlinear function of the electromagnetic field tensor, that torsion coupling can be produced if vacuum polarization is first achieved. This is due to the fact that torsion cannot couple directly to the photon field (standard Hertzian electromagnetic plane waves), but can couple to the spin fields of the electron and positron which are a product of vacuum polarization.

⁸¹ <http://www.nycompaniesindex.com/faser-corp-loezb/>

⁸² Alexander Frolov, "Torsion Fields - A New Science," *New Energy News*, Volume 4, No. 11, March 1997, p 12.

⁸³ V. De Sabbata, M. Gasperini, *Letter Nuovo Cimento*, Volume 30, No. 10, February 1981, p 193.

⁸⁴ V. De Sabbata, M. Gasperini, "Torsion Production by Electromagnetic Fields," *Letter Nuovo Cimento*, Volume 30, No. 12, March 1981, p 363.

⁸⁵ V. De Sabbata, M. Gasperini, "A Semi-Minima Coupling Principle for the Electromagnetic Field in a Space with Torsion," *Letter Nuovo Cimento*, Volume 28 No. 7, June 1980, p 229.

Now, since a photon, according to quantum field theory, can disintegrate into a virtual electron-positron pair for a certain fraction of the time, the electromagnetic field producing the pair is thus affected, though indirectly by the torsionic background. It is then concluded that since there is no linear vacuum polarization for a traveling electromagnetic wave in empty space, an electromagnetic wave must propagate through another electromagnetic medium to produce torsion. This is quite similar to the milieu in which the Hutchison lift and disruption effects were produced⁸⁶. Specifically, a propagating torsion wave can be produced if two polarized monochromatic plane waves are propagating at a right angle⁸⁷. In this particular case, the solution for the torsion potential gives a monochromatic scalar wave function, and the space filled with electromagnetic radiation behaves like a dispersive medium for the propagation of torsion. This system is also reminiscent of Tom Bearden's description of the 'scalar interferometry' process⁸⁸. Those who want to experiment in this regard using two laser beams, should be advised that the choice of polarization mode is crucial for the possibility of torsion production⁸⁹.

What physical effects will constitute evidence of a torsion wave-coupling? Since the torsion potential is also a function of the gravitational constant, one could expect to observe a distortion in either gravitational potential or pace of time in the proximity of a torsion beam⁹⁰. A noticeable change in the half-life of a radioactive substance, or alteration in the mass of an object could provide such a test. Also, since the torsion field produces the attraction of like electric charges⁹¹, this unique property could provide an explanation for the formation of Shoulders' condensed charge units in which the Coulomb barrier is broached⁹². This is another system in which time compression or gravitational field changes should be looked for, as an adjunct to this process.

Moreover, if the condensed charge units are a solitonic product of torsion coupling, then torsion fields can represent a quantized vacuum impedance having a definite speed, direction, and spin, which can be topologically structured by certain electromagnetic geometries⁹³, or high-intensity field spark discharges⁹⁴. Alexis Guy Obelensky, for one, has written excellently on such processes⁹⁵.

One final thought on another avenue of investigation which should be pursued. The property of torsion can be a measurable feature of specific vector fields in either a hydrodynamic or electromagnetic context. Basically, helicity or torsion characterizes the amount of twist or knottedness between the streamlines of the vector field. It is known that Beltrami-Trkalian vector fields, in particular, possess non-zero torsion. Please see reference⁹⁶ for more technical background on this subject.

⁸⁶ John Hutchison, "The Hutchison Effect Apparatus," Proceedings of the International Symposium on New Energy, April 1994, CO, p 191.

⁸⁷ V. De Sabbata, M. Gasperini, "Torsion Production by Electromagnetic Fields," Letter Nuovo Cimento, Volume 30, No. 12, March 1981, p 363.

⁸⁸ T. Bearden, Gravitobiology, Tesla Book Company, 1991.

⁸⁹ V. De Sabbata, M. Gasperini, "Torsion Production by Electromagnetic Fields," Letter Nuovo Cimento, Volume 30, No. 12, March 1981, p 363.

⁹⁰ Wilbert B. Smith, The New Science, Thornton Pub., 1964.

⁹¹ Alexander Frolov, "Torsion Fields - A New Science," New Energy News, Volume 4, No. 11, March 1997, p 12.

⁹² K. Shoulders, U.S. Pat. #5,018,180, "Energy Conversion Using High Charge Density."

⁹³ T.W. Barrett, "Electromagnetic Phenomena not Explained by Maxwell's Equations," The Formal Aspects of Electromagnetic Theory, World Scientific, Singapore, 1993, A. Lakhtakia (ed), pp 6-86.

⁹⁴ I. Alexelf, M. Rader, "Observations of Closed Current Loops in High-Voltage Discharges – A Possible Precursor of Magnetic Flux Trapping," IEEE Transactions on Plasma Science, Volume 23, No. 6, December 1992, p 669.

⁹⁵ Alexis Guy Obelensky, "The Magnetic Force is Faster Than Light," Proceedings of the 1986 International Tesla Symposium, International Tesla Society, 1986, p 5-29. (Reproduced above)

⁹⁶ D. Reed, "The Beltrami Vector Field — The Key to Unlocking the Secrets of Vacuum Energy?" Proceedings of the International Symposium on New Energy, 1996, CO, p 345.

In looking for copies of the references provided by Don Reed, we found the following book: Venzo de Sabbata (Dept. of Physics, Bologna University, Italy) and C. Sivaram (Indian Institute of Astrophysics, India), Spin and Torsion in Gravitation, c1994, World Scientific, Suite 1B, 1060 Main Street, River Edge, NJ 07661, 313 pages, indexed. The book is highly mathematical. The thrust of the book is to try to link Einstein's General Theory of Relativity with Spin in order to eventually achieve an improved understanding of gravitation.

The Preface includes the following remarks: "The Spin of elementary particles manifested itself in several new effects in fundamental interactions such as splitting of nuclear energy levels and nondegeneracy of hadronic states in strong interactions, parity violations in weak interactions, etc. The fact that the effects of spin when considered in gravitational interactions can also lead to several interesting physical phenomena in both the micro- and macro-world is not so well known. The literature is mostly confined to specialized articles read by only those few directly working on the subject. Even most physicists working on gravitation theory are not much aware of the interesting consequences of spin-modified gravitation effects, especially those caused by torsion which is the geometric effect of Spin in space-time (analogous to mass causing space-time curvature)."

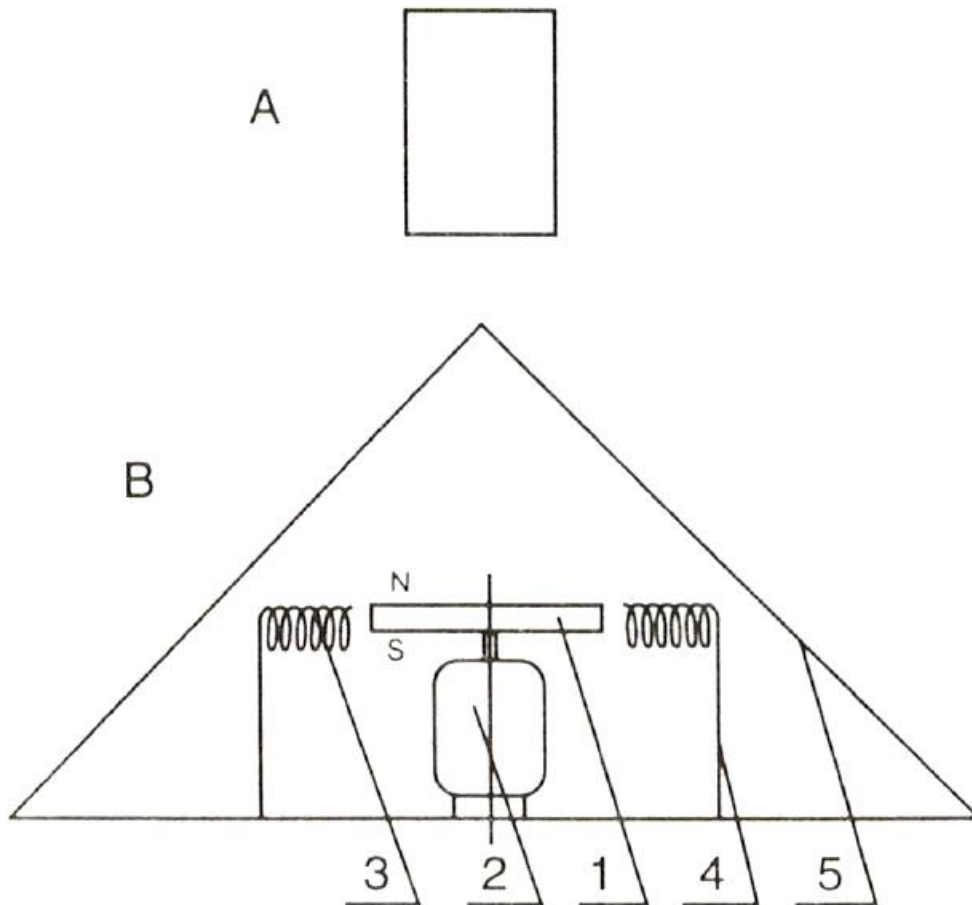


Fig. 1. Schematic diagram of the experimental arrangement.
 A - cell for measuring hydrogen permeability or electrode potentials
 B - torsional generator with permanent magnet (1), rotational electric drive (2), solenoid (3), connecting strip (4), and casing (5).

A descriptive figure for a torsional generator appears as Figure 1 in an article by Vladimir I. Kichigin, et al., "Torsional Fields and Electrochemical Processes at Metal-Electrolyte Interface," Journal of New Energy, Volume 1, No. 2, pp 27-31. We have written to Dr. Kichigin at Perm University in Russia and have asked for a survey article and for specifics on making and measuring torsion fields. The diagram from Kichigin's paper is reproduced below. Note that the rotating magnet together with the solenoids apparently generate the torsion field. One would suspect that the idea of the solenoids shown as open-ended coils suggests some type of scalar phenomena or that the coils are radiating high-frequency signals. We will report more as soon as we learn more about this interesting phenomena. Kichigin's description is "Magnetomechanical version of the torsion generator consists of a flat permanent carbide-cobalt magnet with the vertically oriented WS polarity. The magnet is rotated about the axis by means of the electric drive. In the area of the permanent magnet position, perpendicular to the WS magnetic axis, solenoids, generating transverse alternating magnetic field, are mounted. The system is placed under a cone-shaped casing, made of insulating material, which is screened by metal foil and grounded. The shielding is apparently used to suppress an electro-magnetic radiation."

Many years ago, a Russian scientist, Albert I. Veinik, discovered a measurable physical field that could penetrate where all electromagnetic radiation was screened out. He called this radiation 'N-Rays'. Due to the difficulty of reproducing Veinik's work, N-Rays were ridiculed, especially by Western scientists. It may be that the discovery of N-Rays was the first work with torsion fields. Today, when highly skeptical scientists want to ridicule something they compare the work to 'cold fusion, poly water, and N-Rays'. It may be that the polywater phenomena is related to the recent discoveries that water has the capability of storing certain types of chemical [and other?] information – an explanation for the use of highly-diluted medicines used by homeopathic medical doctors.

Source: New Energy News May 1997, pp 10-13.

Y-Bias and Angularity[®]

The Dynamics of Self-Organizing Criticality From the Zero Point to Infinity

©David G. Yurth, Donald Ayres, Robert Stanley

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Introduction

The way we think about physics is important. It frames our view of our place in the Great Chain of Being. It drives how we feel about each other and profoundly influences how we treat the planet we live on. It frames our attitudes and values about life and living. To the extent that our notions about the origins of the Cosmos are flawed, it naturally follows that our attitudes about our relationships with the world we live in must also be crippled. Today, more than at any other time in the known history of our world, we find ourselves faced with the daunting prospect of our own self-inflicted extinction. While the particulars are growing in number at a startling rate, the causes have remained starkly constant.

We have come to rely on the language of Science as the means for discussing how Nature works. If, as the current thinking about such things goes, the Universe in its entirety was created in one mighty bang, it may be true that we are but passive expressions of the evolution of that event, however it turns out. By extension, what difference does it make if we exploit the planet and each other? Were Plato's notions about fate correct? On the other hand, if all the matter, energy, field forces and phenomena comprising the Cosmos are being actively created and deconstructed everywhere, all the time, as part of an infinite, eternal cycle of self-organization and annihilation, our role in this process must be apprehended in a completely different context. If we are active participants in the process of creation, are we not obliged to have a framework for apprehending Nature, which defines our responsibility for the consequences of our choices and actions?

Two hundred fifty years ago, Rene` Descartes and the other keen observers of Nature who followed him made a deal which still exerts a profound influence on the way we all think about such things today. The principle condition which governed Descartes' turf deal with the Catholic Church was that he agreed to restrict his investigations and writings solely to considerations of the 'physical stuff' found in Nature. That is why the science of all things in the natural world has come to be known as 'Physics'. According to this compromise, all things not seen or observed in the Natural world, the 'spirit stuff', were to be left solely to the Church. The decision to make this distinction was political, not scientific. But the primary effect of this agreement has been the evolution of a way of looking at the Cosmos which insists that the physical stuff and the spirit stuff are mutually exclusive, separate and distinct from each other. Today, Science denies that 'spirit stuff' even exists.

As a consequence, the Standard Model of Physics still specifically prohibits a long list of widely observed and impeccably documented phenomena which violate this dictum. Rigorous experimental evidence to the contrary notwithstanding, it is still not possible for competent scientists to report the results of rigorously conducted experimental protocols which attempt to penetrate these mysteries in the official organs of Science because all such reports are forbidden. It is not simply a matter of such things not being scientifically valid. Rather, even when scientific validity has been clearly established, the institution of Science has continued to preclude the publication of such heretical notions.

Is it any wonder, then, that the children of the 21st century have little or no concept of the implicate order which defines the way the fabric of the Universe is woven? How can anyone who looks carefully and thoughtfully at the most fundamental questions make sense of what we think we know, when much of the information we need to exercise informed judgment about such things is deemed unacceptable for public discourse? How can Science and scientists be trusted to provide valid, robust, meaningful answers to the most important questions of our time when the disciplines which govern their research are so severely crippled and proscriptive?

In a word, we can't. Until Science and its practitioners are not only permitted but affirmatively encouraged and supported to find the answers to the questions involving the unseen stuff of the Cosmos, we will not be able to trust either the scientists or the brand of Science they practice. What this suggests for the way we practice Science is profound.

This book steps outside the artificial and arbitrary proscriptions imposed on our way of thinking by Science as it is practiced today. It looks at the deepest inner workings of the Cosmos from an entirely different vantage point and, as one might expect, produces some answers which are fundamentally at odds with mainstream science. Despite the protestations of the high priests of science, that all the hard questions have been asked and almost all of the true answers have already been provided, we are convinced that few of the answers we have been given are complete and robust enough to even be useful, much less true and correct. So this is where we begin – by asking different questions and remaining open to answers which are bound to surprise us.

Proponents of the Big Bang theory of the formation of the Universe insist that all the matter and energy comprising the Cosmos were all created in a single instant. The model has been challenged because it fails to satisfy a number of unresolved issues identified by scientists who are not afraid to challenge this notion. Our research has produced results which suggest that while singularities of enormous scope have almost certainly occurred in the visible Universe from time to time, the explanation for what they were and how they worked is almost certainly different than the Big Bang theory proposes. Not only have such things occurred in the past, in varying magnitudes and in widely varying locales, it is a virtual certainty that similar events will continue to occur again and again. What this means about us and our place in the Cosmos is equally important.

The Standard Model holds that nothing in the Universe can travel at a velocity greater than C , the constant used by Einstein in his famous equation to support his notions about the relativity of matter, energy, time and gravitational forces. The model holds that C is absolute, constant and immutable. Today we know with absolute certainty that none of these presumptions are correct. Our knowledge about such things is better informed, but the model has not been modified to accommodate what we know. Why is this important? It is critical to our way of thinking because a corollary to this dictum is the equally flawed notion that the four linear field forces accepted by Science are primary, mutually exclusive and distinct from one another. The model insists that these are the only field forces which can be accommodated and, further, that they existed before the beginnings of the Universe. If we knew this were not true, what effect would that have on our way of thinking about ourselves and our place in the Universe?

Descartes' legacy continues to haunt us. In the languages and cultures of the West we view the physical world as separate and distinct from the 'spirit stuff' we cannot see. Despite the fact that quantum mechanics has successfully supplanted Newton's notions of the Universe as a clockwork mechanism, we still rely entirely on reductionist science to investigate how Nature works. If the way we practice science could illuminate the dark corners of our notions about these conceits, our way of thinking about such things would be compelled to change. How those changes would affect our attitudes, feelings and behaviors is open to speculation, but one thing is crystal clear: unless and until we understand how Nature really works, in us and around us, we will continue to precipitate the prospect of extinction on ourselves and each other until it is too late.

Science as presently constituted consists of an agglomeration of contradictory, inconsistent notions about how various parts of the natural world interact with each other. For every rule there are almost always exceptions. It is held that the vagaries of semantic language are unsuitable for scientific pursuits and that, therefore, the only way to understand or describe how Nature works is to employ an unambiguous means of expression which we call mathematics. The notion that mathematics is a privileged means of communication is based on the flawed assumption that a one-to-one direct relationship exists between natural phenomena and the symbols employed in mathematical expressions. Nothing could be further from the truth. The consequences of this widely held cultural notion is that (1) only mathematicians and scientists are competent to understand and use this privileged means of expression; (2) in order to understand how Nature works, you must be certifiably competent to use this privileged language; and (3) only a few gifted individuals are suitably intelligent and adequately trained to do so.

The privileged cult of Science, as viewed in the context of those who exercise political control over access to the resources required to support scientific undertakings, is the province of a chosen few. Admittance to the inner sanctum of elevated scientific pursuits requires adherence to a set of carefully defined rites of passage and values. Anyone who steps outside the accepted parameters does so at the risk of their credentials, access to research data and funding support, and the ability to share their findings in the official publications of the Scientific community. If this sounds very similar to the way the Catholic Church treated Copernicus and Galileo, it is because the dynamics of heretical proscription and ostracism are not unique to religious orders.

It has been truly said that the inclusion of a mathematical formula in any text automatically reduces its salability by at least 50%. If this is true, it is because we have been enculturated to believe that mathematics is the province of an elite and exclusive class of intellect. Again, nothing could be further from the truth. We use formulas in our discussion of mass, magnetism, precessing gyroscopes, gravitational field effects, self-organizing criticality and the Fibonacci numbers. We use them because they give us a way to discuss physical phenomena in a way that is difficult or impossible in linguistic terms. However, at each step we also provide a set of endnotes which explain what the formulas mean and describe how they work. If you can read this text you can understand the mathematics we use. It's as simple as that.

In our investigations we discovered that everything we encountered in the physical world can be explained in the context of a set of simple, elegant, universally applicable rules. This is not what Science tells us, so we decided to write this book to advance the discussion to another level. In the process, we made some important discoveries. One of these discoveries enables us to define phenomena which have thus far resisted categorical explication in scientific terms. Included in this list is a definition of Mass, one of the most fundamental subjects of scientific investigation. We also define Magnetism for the first time. We show that Time is a product of the continual evolution and self-organizing nature of the Cosmos and not an *a priori* condition. We demonstrate that Complementarity operates at all scales in the Cosmos, from the smallest to the grandest, with equal effect.

In the discussion of 'primary' field effects, we show that all aspects of the physical world can be described in terms of what is called 'Self-Organizing Criticality.' This term is new to the scientific lexicon, since it was invented by Per Bak and his colleagues at the Brookhaven National Laboratories in the mid-90's. Bak suspected but did not know for certain that self-organizing criticality principles lie at the heart of the way the Universe appears and operates at all scales. How this works and why we know it is absolutely correct is the subject of one of the most fascinating discussions of our time.

Physicist David Bohm was quite correct in his presumption that there is an implicate order which governs the way Nature works. We now understand what that order is, how it works and how to use it to engineer reality as we wish.

In addition, we discovered that every interaction between matter, energy, field effects and time can be characterized in terms of the attributes exerted by one component [operating in the Y axis] on another [which is operating in the X axis]. The full complement of attributes used to describe these interactions is referred to in the text as the 'Y-Bias' effect. Intrinsic to any analysis of the Y-Bias effect is the angle of incidence at which such interactions occur. This aspect of Y-Bias is referred to as 'Angularity.' This component plays such an important role in the way self-organizing criticality operates that we have decided for the purpose of clarity to talk about our findings in terms of both Y-Bias and Angularity.

We found that only a few distinct archetypal forms and patterns of behavior characterize the interaction of matter, energy and field forces at ten distinct quantum-defined scales of natural evolution. By analyzing how these forms arise in terms of Y-Bias and Angularity, we have developed a means of explanation which describes the underlying dynamics which are common to each and all of them, from the Physical Vacuum to the infinite expanse of the entire Cosmos. What this means for the pursuit of Science [with a big 'S'] is important because this information makes it possible for everyone who can read English to understand clearly how Nature works.

We have written elsewhere that the practice of Science without a conscience is the most dangerous pursuit ever undertaken. We have only to look around us to discover how horrifyingly true this can be. As expressions of both physical and spirit stuff, we can no longer pretend that what we do can in any meaningful way be separated from the entire fabric of our combined existence. We exert a palpable, measurable influence on each other and the physical world we live in, whether we want to or not. We do not get to vote about that. What we do get to vote about, however, is what influences we choose to exert. The way we pursue Science is one of the most important of these decisions.

As a community of humans, we are at a crossroads now. We are obliged to either change our values and attitudes or learn to deal with a world that is increasingly polluted, inhospitable and dangerous. If the past is prologue to the future, human nature and our attitudes about ourselves and each other will not change unless and until we are faced with the option of either becoming extinct or being compelled to move in another direction. We are at this point in our evolution right now. We have all the information we need to understand

how Nature really works. What remains to be seen is whether or not we can summon the fortitude to actually change the way we treat the planet and each other.

If this book serves no other purpose than to provoke a lively and well-informed dialogue about this subject, it will have served its purpose. Along the way, we hope the findings expressed here will serve to inform you by giving you the means for considering how Nature works in a whole new way.

Good Morning, Don.

Here's the conundrum which has been holding me up and my thoughts about it. If we can apply the Y-Bias/Angularity/Self-Organizing Criticality principles to sort this one out, we will have done so in a way that is fundamentally unassailable. Here's the issue.

What is a magnetic field?

The final authority on the subject, Dr. P. Eric Gunderson, writes,

Just as there is an electrical force between charged particles, and a gravitational force between objects of mass, there is a magnetic force between magnetic poles.

That's it. That's all he has to say on the matter. And just in case it may later slip out of focus, we get the same kind of gobbledy-gook when we try to figure out what mass is. In the standard model, current hypotheses are nothing more than a litany of observed phenomena which fail to explain to anyone's satisfaction what mass and a magnetic field actually are. If our notions about Y-Bias/Angularity/Self-Organizing Criticality are correct, we should be able to solve this mystery. Until we can, something essential is missing from our considerations. In the standard model, similarities observed between magnetic fields and electrical phenomena have been construed to suggest that magnetic properties are possibly the result of forces which are generated by electrical charges which are somehow in motion inside an atom or collection of them. I think this is crap. It's simply a lame excuse which substitutes naming something for explaining it.

We observe an important fact which perhaps holds a clue for us. When a strongly magnetic substance is ground to a powder in which each granule is smaller than the individual magnetic domains which are thought to create a magnetic field, each particle tends to demonstrate the behaviors of a single magnetic domain. If these particles are allowed to arrange themselves in space, they automatically rearrange themselves in a way which is consistently aligned. If such a powder is suspended in liquid plastic, the material can be physically manipulated in such a way as to demonstrate magnetic domains regardless of the resulting plastic object's shape. This suggests something genuinely profound about the nature of matter.

But no matter how small we grind the powder of non-ferrous materials [e.g., copper, aluminum, etc.], no amount of external manipulation with strong electromagnetic or permanent magnetic fields will imbue them with magnetic characteristics. This is critical to our discussion. It is my opinion that magnetism is an expression of the Y-Bias/Angularity/Self-Organizing Criticality nature of materials at their tertiary scale [where quarks of six varieties combine to form hadrons and leptons]. Let's take a look at this phenomenon.

If we step out of the box defined by the conventional model, the context in which we consider this issue is defined in terms which are commonly observed but as yet unaccepted by proponents of the standard model. The Universe at all scales is holographic. There are no 'primary' field effects – all field effects are derivative of fundamental causal forces operating at the zero point. Duality, which is the fundamental attribute of all effects operating in our physical Universe, operates in ways which are now universally recognized to be consistent with the laws of complementarity, self-organizing criticality behaviors and quantum effects at all scales. Most importantly, the Universe is intelligent. In fact, as we have conclusively demonstrated [e.g.,

Kafatos & Nadeau et al], all matter, energy, field effects and consciousness itself are manifestations of the causal plane, currently referred to in the emerging literature as the zero point.

What is not recognized or universally accepted is that quantum mechanics as currently constituted fails to adequately accommodate the dynamics which occur at sub-atomic scales. I have written before that this happens because the Lorentz transform eliminates all the information related to the time domain and any description of the underlying vectored velocities, stressors or spin components which actually define the interactions which occur at the primary, secondary, tertiary and quaternary scales. Even Gell-Mann admits that it is only after quarks have combined to form hadrons [nuclear particles] and leptons [electrons, neutrinos, etc.] that we are able to make any rational judgments about what makes the constituent parts of an atom behave as they do. And as the recent experiments conducted at Fermi and Brookhaven dramatically demonstrated, predictions about the behaviors of such fundamental particles as the muon proved to be utterly useless. Santilli observes correctly that quantum mechanics misses the mark at the sub-atomic level by as much 50% when controlled tests are conducted in linear accelerator chambers. The calculations don't work because they are irrelevant – they are based on incomplete and flawed notions about what makes hadrons and lepton behave as they do in the first place.

At least as important in these considerations is the absolute refusal of science to accommodate the observed interactions between human consciousness and physical matter, various field effects, the time domain and a long list of phenomena which are simply unexplainable in the context of today's science. So in order to understand what magnetism, magnetic fields and mass are, we must reconstruct our model to accommodate what we know in the broader sense, despite the limitations of modern science and the Standard Model. My book "Seeing Past The Edge" defines this process, so we won't go there again.

Instead, let us presume that we are in agreement about the fundamentals so we can move from this new vantage point to the construction of a new model which will explain what magnetism is and how it works. I have thought long and hard about this and after spending several long nights in vigorous investigation, I am convinced that this is how it works.

Let's ask a question that appears to have a patently obvious answer. Why does the periodic chart not show a continuous, consistent flow of form and structure from one elementary material to the next? The standard model observes the phenomenon, counts the sub-atomic bits and reports on its findings but has no cogent explanation about WHY this happens. We presume there are forms of elementary material which are so unstable that they cannot occur naturally or remain viable without decaying to a more steady energetic state. Since entropy demands that elementary materials be fundamentally stable in their configurations, how is that atomic configurations which can be devised mathematically cannot be engineered in intermediary forms which are stable to one extent or another? The answer is not obvious in the standard context, but when considered in terms of Y-Bias/Angularity/Self-Organizing Criticality constructs, the whole issue becomes patently transparent.

Science and standard model say it is because the number, arrangement and interactions of hadrons, leptons and other sub-atomic materials cannot arbitrarily be arranged in ways which violate certain rules of organization [e.g., the Pauli Exclusion Principle]. They don't define what those rules are or why they operate as they do, and are unable to accommodate phenomena which appear to violate them, even when the documentation and experimental verification are rigorous. Science relies on these 'rules' to explain what cannot be done without explaining why. According to our hypothesis, by the time atoms are formed – a fifth level organizational manifestation of matter, energy and field effects beyond the zero point– all the field effects observed in the Universe have been brought into play. But at the fourth scale, where the quarks are still organizing themselves into hadrons and leptons, several field effects are known to be absent. Gravitational effects do not operate at the scale of quarks and neither do we find magnetism, van der waals or other nuclear forces. More importantly, we do not find electromagnetic or any of the conventional nuclear forces in operation. What,

then, acts to cause these fourth level components to aggregate together and demonstrate their attributes as they do?

In our model, spinors interact on each other with predictable effects which can be viewed as ranging from optimal to minimal along a consistently graduated scale, depending on (1) the Y-Bias of interaction, (2) Angularity of intersection and (3) self-organizing criticality functions which operate at each scale. At the primary, secondary and tertiary scales of organization we find that like spins attract, opposite spins repulse, and observe fundamental interactions between human consciousness and component behaviors. The attributes of self-referential intelligence which define the nature of the zero point are intrinsically embedded in the sub-constituent components which aggregate together to form sub-quarks, quarks and hadrons/leptons, etc.

There are six kinds of quarks found in nature, but only two of them combine to create the virtually all the material elements we find in our Universe. The other four are found only in the most exotic of all components, which by their nature operate as the least stable of all sub-atomic elements. Until quarks combine to form hadrons and leptons, we find no evidence of gravitational field effects, no manifestations of electrodynamics, no manifestations of the attribute we call 'mass' and no evidence of the attraction of unlike, dissimilar or opposite attributes for each other. The recognition of these important facts sheds a bright light on our investigations because it tells us that the four 'primary' fields are not primary at all.

Time, as Maxwell correctly pointed out in his quaternion equations is an effect created by the aggregation of virtual ensembles in the zero point, which eventually become manifest as particles with the behaviors we observe at the sub-atomic but not tertiary scale. What this suggests is that when understand the scale at which field effects are created and, further, understand the dynamics by which they become operative, we then hold the keys to engineering solutions which can harness the processes themselves for useful applications. Until then, we are compelled to operate in the 21st Century equivalent of the Dark Ages.

What we DO find when we look at such things in the context of Y-Bias, is a set of field effects which are precisely the opposite of those demonstrated by the phenomenon we find conventionally referred to as magnetism. Quarks are comprised of sub-quarks. Sub-quarks have been shown to be comprised of aggregated informational units demonstrating all the attributes of duality, including entropy. It is at this level, at the level where virtual charge ensembles operating in the zero point combine in a field of undifferentiated negentropy to create time and entropy itself, that we first observe the interaction of what E. Cartan referred to as 'spinors.'

By the time Cartan had begun to work with Einstein and Podolski to develop the groundwork for what is now called 'quantum mechanics,' he had already intuited the fundamental role of spinors at the primary scale. Unfortunately, neither Einstein nor Podolski got it at all. That's why the EPR formulation of gravitational effects fundamentally ignores both the role and importance of delta T and the local/non-local action of spinors on each other and everything around them. It is for this reason that today's version of quantum mechanics fails utterly to describe interactions at the primary, secondary and tertiary scales, and is virtually useless when used to describe quaternary interactions. It is this distinction which provides us with our entry point to creating a working definition of magnetism, gravitational effects, non-locality and so on.

The key to this discovery is the recognition that in the zero point, the potential to combine virtual ensembles of undifferentiated information to create the primary components of the physical world [and perhaps other dimensions as well] is utterly irresistible. The zero point is the causal plane, the well-spring of all matter, energy and field forces found in the Universe. It is, by definition, self-referential and unlimited. It is from this source, then, that the fundamental attributes of intelligence – which we have recognized as the innate capacity for self-referential recognition and self-organizing behaviors – operate. Consciousness itself originates in the zero point, arising and evolving in its own way, in complete accordance with the functions defined by Y-Bias/Angularity/Self-Organizing Criticality rules, to constitute the phenomena we observe everywhere around

us as speciation and individuation – which are the ultimate, irresistible evidence of the fractal and holographic nature of our world.

Until virtual charge ensembles [Beardon's use] combine to form sub-quarks, there is no such thing as time. Time is an expression of duality and the defining attribute of the local-linear data transport limitations which operate in this self-organizing environment we refer to as the cosmos. Its complementary counterpart, which also operates contemporaneously is timeless – we see its effects when we observe the holographic behaviors of our Universe. The primary aggregation of information which manifests this particular attribute of the material world is the photon. Its role in the way nature works has not been clearly understood or explained in the context of the standard model. It is the primary failure to comprehend what light is and why it operates as it does that has prevented science from understanding and developing a cogent paradigm for superluminal phenomena which are observed at all scales everywhere around us.

Photons are the carriers of information. They are a product of entropy, emitted [released] when the energetic relationships between fundamental aggregations of matter and energy are disturbed [as described in Anastasovski's work]. They are by definition a manifestation of the local-linear attributes of the physical world and are bound by the rules of self-organizing criticality behaviors, operating at the primary/secondary organizational scales to operate with only local-linear attributes. There are, indeed, upper limits at which photons can operate in this dimension, in their primary, local, linear environment. While conventional science fails to accommodate rigorously reported variations in the upper velocities of light in the visible spectrum, Y-bias technology predicts that in the same manner and to the same extent that primary interactions at the zero point range from optimal to minimal, so must the effects of their primary interactions manifest ranges of behavior.

In this regard, we observe that the laws of complementarity must also be satisfied. Non-local/non-linear rules also operate with equal force and effect at all scales, including and most powerfully at the primary scale. The Universe is holographic, operating in all-where/all-when as a proximate result of the inextricable interconnection between the virtual charge ensembles which aggregate together in the zero point to create fractally organized domains of information which can be accessed locally from any other point in the cosmos using linear methods, and across time and space without attenuation under properly controlled conditions [e.g., James Wheeler, N. Gisin, A. Aspect, et al].

In this sense, then, magnetism can be described as an organizing field effect which is an effect created at the primary scale, as a manifestation of optimally amplified negentropy. This field effect has both local-linear and non-local/non-linear aspects, as we shall see.. In precisely the same way monochromatic $\frac{1}{4}$ waves of optically visible photons are organized in synchrony to produce the effect we have referred to as the 'laser', ensembles of hadrons and leptons obey fundamental Y-Bias/Angularity/Self-Organizing Criticality rules to become fractally organized at the fourth scale [in the sub-atomic realm], in an array of hadrons and leptons which approaches optimal Y-bias angularity. This interaction produces an organizing field effect which amplifies and transports the organizing negentropic propensities originating in the zero point to the time/space which surrounds the point of organization. The effect it produces is called magnetism.

Magnetism manifests both local-linear and non-local/non-linear field effects which occur in only a few of the elementary materials described by the Periodic Table of Elements. Magnetic fields are attenuated in the local-linear realm by time and space, in a way which has been thoroughly and impeccably measured over the past two centuries or so. Magnetism also operates in a way which is rigorously shown to be non-local/non-linear, as represented in the impeccably documented work of Nikolas Gisin and his team of researchers at C.E.R.N. Non-locality is an intrinsic complementary aspect of all Self-Organizing Criticality behaviors which operate in the observable world, as Gisin's experiments have shown.

When examined in this framework, magnetism becomes not only understandable but fundamentally useful in ways which have not been considered before. For example, it has been shown that field intensity in permanent magnets diminishes across a parabolic slope as temperature is increased. This occurs because the internal oscillation which we describe as ‘heat’ disrupts the organization of the hadrons and leptons in a way which minimizes their optimal Y-bias angularity. But if wave forms were engineered to optimize rather than disrupt this set of relationships by causing the natural order of the hadrons/leptons to become even more optimal in their alignment, it is reasonable to assume that an increase in this kind of ‘heat’ would cause an increase in field intensity.

In fact, this is precisely what scientists did during the early 1960's and 1970's at Ukraine's Institute For Problems of Materials Science. Super magnets produced at this top secret Soviet research facility demonstrated greater magnetic effect at temperatures of 200⁰ Centigrade than they did at -200⁰ Centigrade. In the West, this effect was dismissed out of hand as patently impossible, despite the fact that it was carefully observed and rigorously reported by Ashurst Technology Corporation and the law firm of O'Melveny and Meier in Newport Beach, California.

In fact, experimental evidence recently developed at the University of Washington suggests that this is precisely what happens when properly engineered microwaves are targeted on very finely particulated powders of atomically pure aluminum. Under all other known conditions, aluminum is found to be magnetically inert. Using the most advanced nano technologies currently available, however, researchers there have repeatedly demonstrated that properly modulated streams of carefully engineered microwaves consistently cause finely particulated aluminum to not only demonstrate magnetic field effects, but appear to also mitigate localized gravitational effects.

This research is extremely interesting because it suggests something that has until now remained mysterious and poorly understood by all of science. When viewed as an amplified manifestation of SOC principles originating in the zero point, magnetism becomes a key ingredient in our recipe which attempts to describe how the world works.

It's all about the Y-bias functions and relative angularity of the intrinsic, constituent elements, field effects and configurations which operate from the zero point through the fifth scale – the atom – where Gallileo's single point in a vacuum-based geometry and Lorentian transforms begin to describe fifth and sixth-order effects in their natural manifestations with some consistency.

What does this mean about the Y-bias concept? It suggests, for one thing, that when the organizing principles which govern the Universe are considered in this context, all the previously unexplained phenomena currently not accommodated by the Standard Model may be both understood and explained. Perhaps equally important is the fact that we may now begin to make predictions about phenomena which have not yet been observed or recognized in the context of the Standard Model. Take, for instance, the phenomenon recently reported on Rense.com which suggests that the temperatures surrounding a new class of star formation are believed to operate at scales in excess of 100 million degrees Centigrade. This phenomenon is utterly beyond the purview of the standard model of astronomical physics – but when viewed in the context of Y-Bias/Angularity/Self-Organizing Criticality principles, it comports perfectly with both the rules and the conventions which are mandated by these constructs. The temperatures and pressures found in that star field are analogous to a tsunami which strikes at a force of 15 on the Richter Scale. Such a thing has not yet been observed but is completely tenable when considered in the context of the Y-bias hypothesis. It's a function of maximally efficient angles of intersection which are not subject to conventional dynamical formulations.

Taken in this context, it becomes increasingly likely that what physicists have understandably referred to as the ‘Big Bang’ may have been nothing more nor less than a periodic recurrence of a catastrophic ‘avalanche’ event of sufficient magnitude that it embraced the entire cosmos, causing its constituent elements to

disaggregate completely before being driven again up from the zero point to reorganize into the observable Universe we view today. If the Y-bias principles are correctly considered, it is also likely that an event of this magnitude has happened more than once and will undoubtedly happen again at some future date.

One final consideration is in order in this discussion because it bears directly on the viability of the Y-bias concept. When Viktor Schauberger's Implosion Engine was forcibly co-opted by Himmler's advanced weapons research group in 1939, the inventor had successfully demonstrated its ability to mitigate localized gravitational effects. Nick Cook's research [Hunt For Zero Point] reveals much about what made his discoveries so compelling. When considered in the context of the Y-bias concepts, the effects produced by Schauberger's engine become clearly understandable and, more importantly, manageable.

What Schauberger's Implosion Engine succeeded in doing was to create vortexes which were so Y-bias efficient that at the point of implosion, the temperatures and pressures it created served to disaggregate fifth scale organization. This resulted in the suspension of gravitational field effects in that locale, with a concomitant local/linear field effect which operated on all matter and energy around it at a range which varied with the field strength created by the counter-rotating disks. The nature and magnitude of the effects he created can be calculated with current mathematical expressions so long as they are formulated to accommodate the Y-Bias/Angularity/Self-Organizing Criticality rules which are operative at the tertiary and quaternary scales. The fact that his machine worked is not arguable. HOW it worked and WHY it worked lie at the heart of the entire controversy about UFO's and the role certain secretly funded government projects may have played in deliberately keeping this kind of information out of the hands of scientists everywhere.

And when it is understood that time itself is simply a derivative field effect of Y-Bias/Angularity/Self-Organizing Criticality events manifest from the zero point, it becomes clear that the organization and disaggregation of matter and energy cannot be appropriately considered in the context of time. Time is not a cause – like all other field effects, it is an effect of organization, and therefore can be mitigated by technologies which recognize root causes. This is where we begin to unravel the mystery.

(The following different explanation by David G. Yurth of Y-Bias and Angularity[©] was originally published in the Proceedings of the World Science Organization, College Park MD 2011.)

Y-Bias and Angularity:[©]

The Dynamics of Self-Organizing Criticality from the Zero Point to Infinity

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The quest of modern physics has been to develop a model which correctly describes the role and dynamics of the interactions by which Nature works at all scales. In order for the model which describes these interactions to be robust, it must not only accommodate phenomena which are known to occur, but must also accommodate all rigorously documented phenomena, predict phenomena which are as yet undiscovered, and allow for the inclusion of all rigorously observed, impeccably documented, accurately reported data derived from all sources. To be adequate, any universally applicable physical model must also accommodate the contemporaneous interaction between Descartes' 'physical stuff' and 'spirit stuff' with equal cogency and grace.

The standard physical model fails to rise to this standard. The physical model in general use today is based on a number of fundamentally flawed, incomplete and arbitrarily imposed assumptions. In the 35 years since the Standard Model was improved by the Copenhagen School, the reductionist methodology which typifies scientific research has run up hard against the most daunting of all Nature's mysteries.

Experimental results provided by the most powerful microscopes, largest telescopes, fastest linear accelerators and other advanced devices, demonstrate that there is an underlying order in the cosmos which has not yet been understood or articulated but which has been specifically prohibited by the standard model. The shortcomings of the Standard Model are ameliorated by the application of the rules of Self-Organizing Criticality in complex open systems⁹⁷ as characterized by the Fibonacci series of numbers when integrated with the dynamics described as Y-Bias and Angularity.⁹⁸

Introduction

Every useful model is based on a set of assumptions. To the extent that the underlying assumptions have been properly validated, the conclusions extrapolated from them can be relied on to accurately describe any set of related properties, functions, or behaviors observed thereafter by others. Moreover, valid assumptions make it possible to predict interactions and outcomes not previously unobserved or reported. The list of assumptions which have not been validated, reported, or repeated experimentally, but which are nevertheless accepted as primary underpinnings for the standard physical model, is long and growing longer. Among the most egregious of these presumptions we find the following:

- The Invariance of the Alpha Constant
- The Speed of Light as the upper limit to transport velocities
- The Planck Constant as the primary limit of time and spatial dimensions
- Four Primary Field Effects regarded as mutually exclusive, a priori, and dispositive
- The Big Bang Cosmological Model of the Universe
- Black Holes
- Dark Energy & Dark Matter

A proximate result of Science's compulsory reliance on these and other equally flawed notions is that an equally long list of fundamental physical attributes observed in the natural world remains completely unexplained. Chief among these are the primary nature of such things as

- Matter
- Mass
- Energy
- Magnetism
- Gravitational field effects
- Superluminal velocities
- Simultaneity, defined as non-local effects at a distance

Since Hubble observed the red shift in photons originating from far distant astronomical bodies, the standard physical model has come to rely exclusively on the validity of the theory of cosmological origins [referred to as the Big Bang Theory] as the basis for all subordinate considerations. The Big Bang model holds, among other things, that everything in the observable Universe was created at some far distant moment in the past as the result of a single inexplicable instantaneous singularity. Defenders of the model insist, and the standard

⁹⁷ Bak, Per, *How Nature Works*, Springer-Verlag (New York @ Copernicus) 1996.

⁹⁸ Ayres, D., Y-Bias and Angularity, ref.

model proclaims, that four primary field effects pre-dated the Big Bang event and caused the eventual outcome to dynamically evolve over some indefinite period of time to become the observable Cosmos. Indeed, it is a dictum of the Big Bang model that the four primary *a priori* field effects which controlled its evolution are the only naturally occurring field effects that operate universally in the cosmos. An explanation of how and why this is so is assiduously avoided by proponents of the model.

Accordingly, what Science has failed to recognize is that in point of fact, the Big Bang model is not a fact at all. It is an idea. It is an idea which cannot be reasonably defended by any rational extension of scientific logic or evidence. Therefore, the assumptions which have been invented by the model's proponents to defend it violate the most fundamental precepts of Science and the scientific method. Consequently, Science now finds itself unable to come to grips with a whole new world of discoveries which hold the keys to understanding how Nature works at all scales. As a result, the list of experimentally verified, impeccably reported, and repeatedly demonstrated phenomena not accommodated by the standard physical model is also getting longer with each passing day.

A New Model of Physical Interactions

The authors provide a simple, elegant model of scalar interactions which accommodates heretofore not accommodated phenomena, predicts new interactions and remediates other cosmological deficiencies in the standard physical model by describing how the fundamental processes of *Y-Bias Interactions*⁹⁹ originating in the Physical Vacuum operate with optimal concomitant *Angularity* in their interactions to operationalize the autopoietic processes found in *Self-Organizing Criticality* [as described by Bak et al¹⁰⁰ to produce the space-time continuum [described by Minkowski as 4-space [L⁴]], defined in terms of time, matter, energy and Local-Linear/Non-Local, Non-Linear [L²/N²L²] field effects.

The Y-Bias model of scalar interactions posits a regularized set of dynamic processes which operate from the timeless, infinite, holographic expanse of the physical vacuum to the infinite vastness of the Universe as a perpetual cycle of self-organization and catastrophic annihilation at all scales. The Y-Bias model proposes that everything in the cosmos is comprised of information. When the rigors defined by self-organizing criticality are imposed on what we think we know about information, a completely dynamic process can be constructed which operates with absolute regularity from top to bottom, from the inside out.

The Y-Bias model operates within the construct of ten (10) quantized scales of complexity. These are defined as:

1. Physical Vacuum
2. Virtual Ensembles
3. q-bits [sub-quarks]
4. Quarks
5. Hadrons & Leptons
6. Atoms
7. Molecules
8. Local Complex Open Systems
9. Solar Systems
10. Galactic Systems

⁹⁹ Ayres, ibid

¹⁰⁰ Bak loc.cit.

At each scale the laws of self-organizing criticality operate with invariant regularity. The set of rules which apply to the organization and dynamic interactions in complex, open systems to create and disaggregate time, mass, matter, local and non-local field effects, light and energy. The primary factors are defined as:

1. Punctuated Equilibrium
2. Fractal Geometries
3. $1/f$ Noise Thresholds
4. Logarithmic Power Laws
5. Fibonacci Series of Numbers

Complex Open Self-Organizing Systems

For the purposes of this discussion, a complex, open, self-organizing system is defined as one which demonstrates the characteristics of the condition known as criticality. For purposes of illustration, at the grandest of scales, the Milky Way Galaxy [like all galaxies found in the cosmos] is a complex, open, self-organizing system¹⁰¹.



Hubble/NASA Example of Celestial Organization

At a finer scale, the same is true of our own solar system. In every sense, it demonstrates all the characteristics, attributes and behaviors associated with self-organizing systems.¹⁰² So does our planet. Taken by itself as a single comprehensive unit, the Earth and its sub-systems all demonstrate the attributes of self-organizing criticality at every scale, from the release of virtual photons produced by primary energetic interactions to the Earth's participation as a member of the solar system set.¹⁰³ All these systems operate, as Capra¹⁰⁴ has rigorously reported, in an integrated, indivisible aggregation of inextricably inter-related constituents which, in the final analysis, comprise a single overall self-organizing system.¹⁰⁵

¹⁰¹ Wheeler, J.A., *Einstein's Vision*, Springer-Verlag, 1968, page 112. See also A. Dolgov, Yu. Zel'dovich, M. Sazhin, *Cosmology of the Early universe*, *MGU Publ.*, Moscow 1988, page 200 (in Russian). See also M. Lavrent'ev et al, *On Remote Action of Stars on Resistor*, *Doklady AN SSSR*, 1990, vol 314, no 2, page 352 (in Russian). See also A. Pugach, A. Akimov, "Astronomical Observations by N. Kozyrev's Methodology: Preliminary Results," in the press (in Russian).

¹⁰² Flyvbjerg, H. Sneppen, K. and Bak, P. *Mean Field Theory for a Simple Model of Evolution*. *Physical Review Letters*, 71 (1993) 4087. See also, Sheldrake, R., *Seven Experiments That Could Change The World: A Do-it Yourself Guide to Revolutionary Science*, Riverhead Books, Inc. NY (1995) ISBN: 1-57322-14-0.

¹⁰³ Capra, F., *The Turning Point: Science, Society and the Rising Culture*. Bantam/ Simon & Schuster, New York (1982).

¹⁰⁴ F. Capra, *Turning Point*, ref

¹⁰⁵ Wilcock, D. Personal Notes: "Consider the Nineveh Constant, discovered by NASA scientist Dr. Maurice Chatelain – where all the planets' orbits are some form of harmonic division of a master time cycle of roughly 6.5 million years, or 70 multiplied seven times by 60 in seconds. (Vol. 3, Convergence, Divine Cosmos.) The second, as a time quantum, is a basic "beat" frequency of the universe, whose macroscopic structures are the byproduct of harmonic oscillation of the PV, creating stable fields that appear as nested, rotating spheres (i.e. the planetary orbits) with Platonic geometries that are formed by the vibrational nodes on the surface of Space Travel Innovations

Simple Elegant Rules

According to the experimental data developed by Bak et al, it is evident that open, complex, self-organizing systems simultaneously and universally demonstrate all four of the following attributes:

- 1. Punctuated Equilibrium:** Criticality is defined as the point in self-organizing system evolution at which an observable event occurs. Between each event or ‘avalanche’ there are relative periods of apparent stasis which are punctuated from time to time by other ‘avalanches’ of various magnitudes. These avalanches can be literal, as in the case of Bak's sand pile [or the catastrophic rush of a field of snow down a slope], or they can take the form of mass extinctions, the rises and falls of the stock markets, the occurrence of solar flares, earthquakes, tornados, hurricanes or floods, wars, the evolutionary cycles of the Internet, the evolution of languages, etc. The phenomenon of punctuated equilibrium is an intrinsic dynamic comprising the quantum functions which have been observed to operate at all scales in Nature. In this view of self-organizing criticality behaviors, the geological effects demonstrated by the Grand Canyon, for example, are the product of a series of catastrophic avalanche events rather than the gradual grinding down of geological strata by hydro-dynamic erosion over millions of years. The science of geology now confirms this to be a more accurate depiction of such geological events.
- 2. Power Laws:** The relationship between the magnitudes, frequencies and locale of individual avalanches can be expressed in terms of a simple exponential equation. There are no singular explanations for large events – the same forces which cause the Dow Jones Industrial Average to rise 5 points on one day also caused the crashes of 1929, 1987 and the Dot.com crash of 1999. Wherever we find that a logarithmic relationship exists between a series of catastrophic events, which can be plotted on a set of X-Y coordinates as straight line with a slope, we can be absolutely certain that the system which produced it is a self-organizing system. The logarithmic relationship which characterizes the power laws governing self-organizing criticality processes is primary to the formation of matter, energy, time and all the field forces which operate in the cosmos. All of Nature, at all scales, manifests uniform compliance with this rule.
- 3. Fractal Geometry:** First expressed by Benoit Mandelbrot¹⁰⁶ of IBM, fractal geometry is a mathematical construct which illustrates that where a complex, open, self-organizing system exists anywhere in our space-time continuum, it is self-similar at all scales, in Minkowski 4-space. Fractals are the natural record of the evolution of natural, open, complex, self-organizing systems of all kinds. In this context, Y-Bias/Angularity Theory holds that the ‘boundedness – unboundedness’ attributes manifest by the aggregations of scalar components, occurring at the zero point, define the eventual form each event will become at each subsequent scale of organization.

Boundedness, the conceptual construct reflected by the self-similarity which characterizes fractal geometry, occurs as the result of the interaction of scalar components beginning at the primary scale and extending throughout the micro and macrocosm. The formula which describes the fractal properties of self-organizing criticality interactions is shown as

$$Z (Z^2 + C)^{107} . \quad \text{Formula 1}$$

each sphere – thus explaining many different geometric phenomena I have explored at all levels of scale. Consider Roschin and Godin’s replication of the Searl Effect and the nested magnetic spheres that were detected when it was in operation as one of many examples showing these fields at work. I also have yet-unpublished data showing these nested spheres emerging as zones of redshift variance (correlated with PV density levels by Aspden) in galaxies. It appears that the in-progress interplanetary climate change I am documenting is a byproduct of our entrance into a higher density of PV in the galaxy, causing a moment of “punctuated equilibrium.”

¹⁰⁶ Mandelbrot, B., *Fractal Geometry of Nature*, WH Freeman & Co., (August 1988) ISBN: 07 16711869.

¹⁰⁷ $Z (Z^2 + C)$: This formula contains the term 'Z' which means an angle of incidence between two interacting data sets or physical events. The symbol (depicts a realtime feedback loop in which each expression feeds information back to the other at a rate which is

By its nature, fractal geometry serves to organize discrete quanta of information into aggregations which are either bounded [as Z] or unbounded [as $Z^2 + C$], in a way which preserves the primary data sets found at the Zero Point throughout each quantum-defined scale of subsequent organization. The fractal formula suggests that SOC dynamics are self-referential, as shown by the function ' f ', which connotes interaction rather than equivalence. This is the primary function identified by Kafatos & Nadeau which considers 'background reality-as-it-is' to be self-referential at all scales. This function is also the operative dynamic which drives the Implicate Order postulated by Bohm.¹⁰⁸

When a complex system evolves to a state of self-organizing criticality over any increment of time [t], the physical record of its evolutionary history can only be described in terms which are fractal. The shape of a riverine delta, the variegated slopes of a mountain range, the shape of a coral reef, and the corrugated features of the human brain are all records of the evolution of self-organizing systems manifest in fractal form. It is because fractal geometry constitutes the natural expression of the evolution of self-organizing systems that analysts have been able to develop applications which efficiently identify non-fractal patterns found in the natural landscape.

4. **1/(Noise:** In order for any observable event to occur within a self-organizing system, the interactions between individual components and field effects must exceed quantum-defined scalar 'noise' [$1/f$] thresholds. For an aggregation of components at any scale to become self-organizing, the number of components, their aggregate properties and the Y-Bias/Angularity effects they exert on each other must combine to breach the minimal noise thresholds. By definition, this set of interactive properties and dynamics demands that all such interactions must be accompanied by and combine to create a concomitant set of harmonic resonances, regardless of the scale at which they occur. The nature and importance of harmonic resonance in this regard is addressed under Fibonacci series and its relationship to gravitational forces.

Einstein's Vector Magnetic Potentials

At this juncture we pose the seminal question:

"Assuming that the rules of self-organizing systems uniformly and universally apply to all interactions, what is the essential dynamic that defines the process?"

In the decade of the 1920's, Einstein introduced the concept that only the vector magnetic potential has a physical reality in electrodynamics. He postulated that the electric and magnetic fields are merely conceptual constructs developed to accommodate the reciprocity observed in field interactions between charge ensembles. Most modern physicists still do not accept this assertion. This remains true, even though more recent experimental research [the Aharonov-Bohm experiment] conclusively demonstrates that the A field is real (the experiment shows that A can alter the quantum wave function) [even] when all other electromagnetic effects have been completely shielded out.^{109 110}

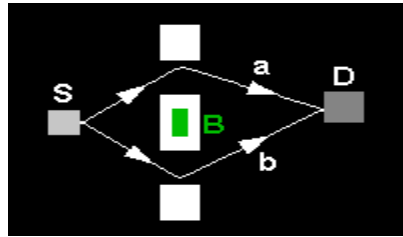
equal to the square of the speed of light. This interaction suggests that when until the information fed from the left side of the equation meets or exceeds a minimal quantum limit, shown in Self-organizing criticality as the function $1/f$, it remains bound by a nexus considered to be a zero point or 'seed' in fractal geometry. When the noise threshold [$1/f$] is breached, however, the data or resulting physical phenomenon then becomes self-sustaining until the next noise threshold is reached.

¹⁰⁸ D. Bohm, "Wholeness and the Implicate Order" [Ref]

¹⁰⁹ <http://www.enterprisemission.com/moon6.htm>

¹¹⁰ In 1986, most physicists finally accepted the Aharonov-Bohm effect with its implications (see Physics Today, Jan. '86). However, in the intervening 20 years since his work was completed, no changes have yet been made to electromagnetic theory or the basic classical approach to electrical physics and engineering as taught in colleges and universities.

Recent experimental research [e.g., the Aharonov-Bohm experiment] shows that the A field [the N^2L^2 non-local/non-linear field described by Kafatos and Bohm, as demonstrated by Gisin et al] is quite real. The seminal experiment shows that the A field can alter the quantum wave function [even] *when all other electromagnetic effects have been completely shielded out.*¹¹¹



Schematic Diagram of the Bohm-Aharonov Experimental Protocol.

In classical mechanics, the motion of a charged particle is not affected by the presence of magnetic fields in regions from which the particle is excluded. The motion of classical particles emitted by the source **S** is not affected by the magnetic field **B** because the particles cannot enter the region of space where the magnetic field is present. For a quantum charged particle there can be an observable phase shift in the interference pattern recorded at the detector **D**. This phase shift results from the fact that although the magnetic field is zero in the space accessible to the particle, the associated vector potential is not. The phase shift depends on the flux enclosed by the two alternative sets of paths **a** and **b**. But the overall envelope of the diffraction pattern is not displaced, indicating that no classical magnetic force acts on the particles. The Aharonov-Bohm effect demonstrates that it is the electromagnetic potentials, rather than the electric and magnetic fields, which are [as Einstein correctly intuited] the fundamental quantities in quantum dynamics.¹¹²

E. T. WHITAKER – On the Differential Equations of Physics

If the magnetic potential constitutes the prime mover in all self-organizing criticality interactions, what is the mechanism by which it operates? In the famous paper published by Physics Letters in 1903-04, E.T. Whittaker provided a mathematical proof which demonstrates that the magnetic potential [as represented by gravitational field forces] is not only 'undulatory' [which we interpret in a semantic context to mean harmonically and interactively resonant], but are also the result of field force interactions occurring between masses in the Y axis. The following summary taken from Whittaker's work suggests that the Y-Bias model is perfectly on target in this regard.

Equation 5 - Gravitation and Electrostatic Attraction explained as modes of Wave-disturbance.

The result of [Formula 1], namely that any solution of the equation¹¹³

$$\frac{(\partial^2 V)}{(\partial x^2)} + \frac{(\partial^2 V)}{(\partial y^2)} + \frac{(\partial^2 V)}{(\partial z^2)} = k^2 \frac{(\partial^2 V)}{(\partial t^2)} \quad \text{F.9}$$

can be analyzed into simple planar waves, throws a new light on the nature of those forces, such as gravitation and electrostatic attraction, which vary as the inverse square of the distance. For if a system of forces of this

¹¹¹ <http://www.enterprisemission.com/moon6.htm>, <http://rugth30.phys.rug.nl/quantummechanics/ab.htm>

¹¹² <http://rugth30.phys.rug.nl/quantummechanics/ab.htm>

¹¹³ This equation identifies four dimensional constructs, which are identified in terms of the X axis, Y axis, Z axis and *t*, time. It says that the sum of the square of the first three dimensions, expressed as a function of their relative wavefront velocities, is equal to the wavefront velocity of time, when time is multiplied by some constant *K*.

character be considered, their potential (or their component in any given direction) satisfies the equation on the differential equations of physics.¹¹⁴

$$\frac{\partial^2 V}{\partial x^2} + \frac{\partial^2 V}{\partial y^2} + \frac{\partial^2 V}{\partial z^2} = 0 \quad \text{F.10}$$

and therefore *a` fortiori* it satisfies the equation

$$\frac{\partial^2 V}{\partial x^2} + \frac{\partial^2 V}{\partial y^2} + \frac{\partial^2 V}{\partial z^2} = k^2 \frac{\partial^2 V}{\partial t^2} \quad \text{F.11}$$

where **k** is any constant. It follows from [1] that this potential (or force-component) can be analysed into simple plane waves in various directions, each wave being propagated with constant velocity. These waves interfere with each other in such a way that, when the action has once been set up, the disturbance at any point does not vary with the time, and depends only on the coordinates (**x**, **y**, **z**) of the point.

It is not difficult to construct, synthetically, systems of coexistent simple waves, having the property that the total disturbance at any point (due to the sum of all the waves) varies from point to point, but does not vary with the time. A simple example of such a system is found in the following.¹¹⁵

Suppose that a particle is emitting spherical waves, such that the disturbance at a distance **r** from the origin, at time **t**, due to those waves whose wave-length lies between λ and $\lambda + d\lambda$, is represented by

$$\frac{\lambda}{r} \text{ and } \frac{\lambda + d\lambda}{r}$$

is therefore represented by

$$\frac{\lambda}{r} \sin((Vt - r)) \quad \text{F.12}$$

where **V** is the velocity of propagation of the waves. Then after the waves have reached the point **r**, so that $(Vt - r)$ is positive, the total disturbance at the point (due to the sum of all the waves) is

$$\int_0^{\lambda} \frac{\lambda}{r} \sin((Vt - r)) \cdot \quad \text{F.13}$$

Take $(Vt - r = y$, where **y** is a new variable. Then this disturbance is

¹¹⁴ This derivative substitutes zero for the equivalent function of the differential integral represented by the right hand set of values. What this implies is that the interaction of the three physical dimensions when viewed as interactions between masses occurs in zero time, or instantaneously.

¹¹⁵ The formulas which follow contain a number of discrete elements which are expressions of the various properties of the waves which are being propagated between two masses. Whittaker's formula is intended to portray in mathematical terms "...the total disturbance at any point (due to the sum of all the waves) varies from point to point, but does not vary with the time." The use of the differential integral symbol [∫] suggests that the range of interactions extends from 0 to Infinity [∞], suggesting in turn that while the velocity [V] of the waves extends across this range, the value for time [t] does not vary. This provides the basis for describing simultaneous, interactive wave propagation which is both infinite in expanse, instantaneous at all distances, and which 'undulates' to create addresses along the intersecting points where the wave interact, amplify and nullify each other as a function of their interference patterns.

$$\frac{2}{r} \left(\frac{\sin y}{y} \right) (dy) \quad \text{F.14}$$

or, since

$$\left(\frac{\sin y}{y} \right) (dy) = \frac{1}{2} \quad \text{F.15}$$

it is

$$\frac{1}{r} \quad \text{F.16}$$

Therefore, the total disturbance at any point, due to this system of waves, is independent of the time, and is everywhere proportional to the gravitational potential due to the particle at the point.

It is clear from the foregoing that the field of force due to a gravitating body can be analysed, by a 'spectrum analysis' as it were, into an infinite number of constituent fields; and although the whole field of force does not vary with the time, yet *each of the constituent fields is of an undulatory character, consisting of a simple wave-disturbance propagated with uniform velocity.* This analysis of the field into constituent fields can most easily be accomplished by analysing the potential $1/r$ of each attracting particle into terms of the type

$$\frac{\sin (Vt - (r))}{r} \quad \text{F.17}$$

as in the example already given. To each of these terms will correspond one of the constituent fields. In each of these constituent fields the potential will be constant along each wave-front, and consequently the gravitational force in each constituent field will be perpendicular to the wave-front, i.e. *the waves will be longitudinal.*

But these results assimilate the propagation of gravity to that of light: for the undulatory phenomena just described, in which the varying vector is a gravitational force perpendicular to the wave-front, may be compared with the undulatory phenomena made familiar by the electromagnetic theory of light, in which the varying vectors consist of electric and magnetic forces parallel to the wave-front. The waves are in other respects exactly similar, and it seems probable that an identical property of the medium ensures their transmission through space.

This undulatory theory of gravity would require that gravity should be propagated with a finite velocity, which however need not be the same as that of light, and may be enormously greater.

Of course, this investigation does not explain the *cause* of gravity; all that is done is to show that in order to account for the propagation across space of forces which vary as the inverse square of the distance, we have only to suppose that the medium is capable of transmitting, with a definite though large velocity, simple periodic undulatory disturbances, similar to those whose propagation by the medium constitutes, according to the electromagnetic theory, the transmission of light.

Torsion Field Mechanics: **Verification of Non-Local Field Effects in Human Biology**

David G. Yurth
5 December 2000

Introduction:

Over the course of the 20th century, various investigators in different countries, representing a variety of interests, have repeatedly reported the discovery of unusual non-local field effects in human biology which could not be explained in the framework of the Standard Model. Since the investigators and writers could not understand or explain the physics associated with the observed phenomena, they were forced to invent new names for the fields, emanations and energies believed to be responsible for the creation of these phenomena.

Background:

These include N.A. Kozyrev's 'time emanation,'¹¹⁶ W. Reich's 'O-emanation' or 'orgone,'¹¹⁷ M.R. Blandlot's 'N-emanation,'¹¹⁸ I.M. Shakhparonov's 'Mon-emanation,' A.G. Gurvich's 'mitogenic emanation,'¹¹⁹ A.I. Veinik's 'chronal field,'¹²⁰ the 'M field,'¹²¹ A.A. Deev's 'D-field,' Yu. V. Tszyn Kanchzhen's 'biofield', H. Moriyama's 'X-agent,'¹²² V.V. Lensky's 'multipolar energy,'¹²³ 'radiesthetic emanation,'¹²⁴ 'shape power,' 'empty waves,'¹²⁵ 'pseudomagnetism,'¹²⁶ H.A. Nieper's 'gravity field energy,'¹²⁷ T.T. Brown's 'electrogravitation,'¹²⁸ 'fifth force,'¹²⁹ 'antigravitation,'¹³⁰ and 'free energy.'¹³¹ The list includes more than 50 such appellations which attempt to describe each of the observed phenomena in terms of the researcher's name, some attribute of the phenomenon or other abstract constructions.

Footnotes, Hyperlinks, Definitions and Suggested Readings

¹¹⁶ Kozyrev, N.A. "On the Possibility of Experimental Investigation of the Properties of Time." *Time in Science and Philosophy*, Prague (1971), pp. 111-132. See also "Causal or Asymmetrical Mechanics in Linear Approximation," Pulkovo, GAO AN SSSR (1958), page 90. See also "On Some Properties of Time Discovered by Astronomical Observations," *Problemy Issledovaniya Vseleynoi* (1980) #9, page 76. See also "Selected Works" (1991) Leningrad State University, page 448.

¹¹⁷ Reich, Wilhelm "The discovery of Orgone," vol. 1, N-Y, Farrar, Strans and Girous (1969).

¹¹⁸ Blandlot, M.R. "Sur de nouvelles sources de radiations susceptibles de traverser les metauz, les bois, ets. Et sur nouvelles actions produites par ces radiations." Academie des Sciences, 2 May 1903, page 1127

¹¹⁹ Gurvich A.G. "Mitogenic Emanation," Leningrad, 1934, page 356

¹²⁰ Veinik A.I., "Termodinamika Realnykh Protsessov" [Thermodynamics of Real Processes], Minsk, Nauka I Tekhnika (1991) page 576 (Russian). See also with Komlik S.F., "Kompleksnoye Opredeleneniye Khronofizicheskikh Svoistv Materialov," [Complex Determination of Chrono-physical Properties of Materials], Minsk, Nauka I Tekhnika (1992), page 96 (Russian).

¹²¹ Ludwig W. "Science and Physical Aspects of MORA-therapy," *American Journal of Acupuncture* (1978) vol. 15 #2, page 129

¹²² Moriyama H. "Challenge to Einstein's Theory of Relativity – Further Studies on X-Agent," Shonan Hygiene Institute, Japan (1975) page 119

¹²³ Lensky V.V. "President i odin v polye voin." Moscow (1991) (Russian)

¹²⁴ "radiesthetic emanation" by Pagot J. "Radiesthesie et emission de forme." Paris (1978) page 277

¹²⁵ shape power & empty waves by Schmidt M., Selleri F. "Empty Wave Effects on Particle Trajectories in Triple-slit Experiments." *Foundation of Physical Letters* (1991) vol. 4 #1, page 1.

¹²⁶ Pseudomagnetism by Pokazaniev V.G., Skrotskii G.V. "Psevdomagnetism." *Uspekhi Fizicheskoin Nauk* (1979) vol 129 #4 (Russian)

¹²⁷ Nieper Hans A. "Revolution in Technology, Medicine and Society: Conversion of Gravity Field Energy." Olderburg (1985) page 384

¹²⁸ Brown T.T., US Patent # 300311, 15Nov1928; US Patent # 3167206, 1June1965.

¹²⁹ 5th Force by Fischbach E., Sudarsky D., Szafer A., Talmadge C., Aronson S.H., "Long-Range Forces and Eotvos Experiments." *Annals of Physics* (1988), #182 page 1.

¹³⁰ antigravitation by Polyakov S.M., Polyakov O.S., "An Introduction to Experimental Gravitonics." Moscow, Prometei (1988) page 136 (Russian)

¹³¹ free energy, *ibid*

Spin-spin interactions of spin-polarized particles with spin-polarized nuclear targets, and the distant correlations of nuclear spin states, were discovered and investigated as result of theoretical and experimental investigations which began in the mid-1960's. Research groups led by V. G. Baryshevsky¹³² and the G.V. Skrotsky group¹³³ in the USSR, by the A. Abragam and M. Goldman group in France¹³⁴ and others have published reports on their findings. These interactions are referred to in their literature as 'pseudomagnetism.'¹³⁵ In one case, the 'pseudomagnetic field' was interpreted as a Coulomb exchange interaction and in other cases as the result of nuclear interactions. During this period, many investigators believed that spin-spin interactions were manifestations of more than one set of dynamics.¹³⁶ During early experimental work, a clear understanding of the mechanisms which govern spin-spin interactions simply did not exist. Later, major investigations of spin-spin interactions between ensembles of particles were conducted by a number of investigative teams.¹³⁷ Distant spin-spin interactions were theoretically and experimentally examined during investigations of nuclear spin waves and nuclear magnetic resonance.¹³⁸

In 1977, A.C. Tam and W. Happer showed experimentally that two circularly polarized laser beams attract or repel, depending on the mutual orientation of their circular polarization.¹³⁹ They discovered and verified that if the direction of rotation is similar, then these beams attract, and if the rotation of their respective polarizations is opposite, then they repel.¹⁴⁰ These results, which have been repeated and experimentally verified many times, violate a number of rules embodied in the standard model of electrodynamics and could not adequately be explained at the time this work was originally being conducted.

In the mid-80's, the A.D. Krisch group was experimentally investigating the interactions between spin-polarized protons and a spin-polarized proton target.¹⁴¹ It was found that the observed process of spin-spin interaction could not be described in the framework of the quark model developed by Gell-Mann and FermiLab. The experimental results did not conform with the standard model of chromodynamics and could not be explained in terms of any other generally accepted models of physics. Analogous results were contemporaneously observed in the USSR during experiments conducted at Dubna and Protvino.¹⁴²

¹³² Baryshevsky V.G., Podgoretsky M.I., *Journal of Experimental and Theoretical Physics* (1964), Vol 47, page 1050 (Russian). See also Baryshevsky V.G., Luboschitz V.L., Podogretsky M.I., *Journal of Experimental and Theoretical Physics* (1965) vol. 48 page 1146 (Russian). See also Baryshevsky V.G., Luboschitz V.L., Podogretsky M.I., *Journal of Experimental and Theoretical Physics* (1965) vol. 1 page 27 (Russian). See also Baryshevsky V.G., Korennaya L.N., Doklady AN BSSR (1965) vol. 12, page 1.

¹³³ Skrotskii G.V., Pokozaniev V.G., "Pseudomagnetism." *Uspekhi Fizicheskikh Nauk* (1979) vol. 129, #4 (Russian).

¹³⁴ Abragam A. Goldman group, "The principles of nuclear magnetism." Clarendon Press, Oxford (1961). See also Goldman M. "Spin temperature and nuclear magnetic resonance in solids." Clarendon Press, Oxford (1970). See also Abragam A., Goldman M., "Nuclear Magnetism: Order and Disorder." Moscow, Mir (1984) in 2 volumes (Russian)

¹³⁵ *ibid.*

¹³⁶ Abragam, A, Goldman M. *ibid.*

¹³⁷ Lvov V.S., "Non-linear Spin Waves." Moscow (1987) page 270 (Russian)

¹³⁸ Bashkin E.P., *Journal of Experimental and Theoretical Physics* (1984) vol. 87, page 21-29 (Russian). See also 1986, vol. 148, #3, page 31-41. See also Shekba B.I., Hazan L.S., *Pisma v Zhurn, Experimental and Theoretical Physics* (1985) vol. 41 #2 page 61-63. See also Ozhogin V.I. *Journal of Experimental and Theoretical Physics* (1985) vol. 89, page 21-25 (Russian). See also Vashman A.A., Pronin I.S. "Yadernaya magnitnaya relaksatsiya i eyo primeneniye v himicheskoi fizike" Moscow, Nauka (1979) page 235 (Russian). See also Fedorov M.A. "Yadernyi magnitnyi rezonans v rastvorah neorganicheskikh veshstv." Novosibirsk, Nauka, Siberian otd. (1986) page 245 (Russian)

¹³⁹ Tam A.C., Happer W., *Physics Review Letters* (1977) vol. 38, #6, page 278. Attraction/repulsion of circularly polarized laser beams. INE ref.

¹⁴⁰ *Ibid.*

¹⁴¹ Krisch A.D., "The Spin of a Proton." *Scientific American*, May 1979. Krisch, A.D. "Stolknoveniya vrashayushihya protonov" V Mire Nauki (1987) #10 (Russian)

¹⁴² **The Proceedings of the VII International Symposium on Spin Phenomena in High Energy Physics**, Protvino, 22-27 sent (1986). Sbornik dokladov. Serpukhov, Goskomitet po Ispoztovaniyu Atomnoi Energiee SSSR. In-t fiziki vysokih enrgii (1987), vol 1, page 287.

During this time, theoretical models were developed which allowed spin-spin interactions to be described as the manifestation of an independent, fundamental characteristic [albeit not clearly understood] of matter. These investigations showed that numerous spin-related phenomena, which could not be explained in terms of the standard model of quantum mechanics, demonstrated a rigorous adherence to the theoretical interpretation provided by emerging torsion field theories. The theoretical results which allowed researchers to understand the Tam-Happer effect were first produced by P.C. Naik and T. Pradhan in the USA¹⁴³ and then by P.I. Pronin, Yu. N. Obukhov and I.V. Yakushin in the USSR. Later, De Sabbata and C. Sivaram in Italy¹⁴⁴ and then E.A. Gubarev, A.N. Sidorov and G.I. Shipov in Russia,¹⁴⁵ integrated torsion theories with their models to produce a theoretical interpretation of the experimental results obtained by A.D. Krish¹⁴⁶ and others.¹⁴⁷

It is worth noting that a number of experiments have been reported which demonstrate effects usually interpreted as the manifestation of a so-called ‘fifth force’.¹⁴⁸ The first research generally credited with the discovery of the 5th force at the end of the 19th century was a professor of the Russian Physical-Chemical Society by the name of N.P. Myshkin.¹⁴⁹ In 1990, De Sabbata and C. Sivram conclusively demonstrated that phenomena connected with the 5th Force can be interpreted as a manifestation of torsion fields.¹⁵⁰ It is also important to make reference to the body of experimental work which investigates the anomalies demonstrated by gyroscopes and gyroscopic systems. Probably the first researcher to establish that the behavior of gyroscopic systems cannot be explained in the framework of Newton’s classical laws of mechanics was Russian astrophysicist N.A. Kozyrev.

In the early 1950’s, N.A. Kozyrev conducted an extended series of experiments with gyroscopes and found that the gyroscope evidences variations in weight, which varies as a function of angular velocity and the direction of rotation.¹⁵¹ Later, Kozyrev’s results were completely and independently confirmed by a member of the Belarus Academy of Sciences, A.I. Veinik, who in the 1960’s-1980’s conducted a major experimental investigation of the anomalies demonstrated by gyroscopic systems.¹⁵²

In 1989, H. Hayasaka and S. Takeuchi published the results of their experiments in which the fall time of freely falling spinning gyroscopes was published. These experiments showed that the fall time varies significantly, depending on the angular velocity and the direction of rotation.¹⁵³ The unusual behavior of spinning gyroscopes was also observed by S.M. Polyakov in the USSR¹⁵⁴ and many others. This phenomenon was interpreted as a manifestation of anti-gravitation, but the dynamics which supported it could not be explained in terms of the standard model of gravitational force [ECT]. In 1991, G.I. Shipov showed that the

¹⁴³ Naik P.C., Pradhan T. “Long Range Interactions Between Spins.” *Journal of Physics A* (1981), #14, page 2795

¹⁴⁴ Sabbata De V., Sivaram C., “Strong Spin-Torsion Interaction Between Spinning Protons.” *Nuovo Cimento A* (1989) #101, page 273

¹⁴⁵ Gubarev E.A., Sidorov A.N., Shipov G.I., “Fundamental Model of Elementary Interactions and the Theory of the Physical Vacuum.” Moscow (1992) **CISE VENT**, Preprint #17 (Russian)

¹⁴⁶ Krishch ibid.

¹⁴⁷ Ibid, footnote #27

¹⁴⁸ ibid. Fischbach - 5th Force.

¹⁴⁹ Myshkin N.P., “Dvizheniye tela, nakhodyashegosya v potoke luchistoi energii.” *Zhurnal Russkogo Flaiko-Himicheskogo Obshchestva* (1906), #3, page 149 (Russian)

¹⁵⁰ torsion field manifestations by Sabbata De V., Sivaram C. “Fifth Force as a Manifestation of Torsion.” *International Journal of Theoretical Physics* (1990) #1, page 1.

¹⁵¹ gyroscope mass variations. Kozyrev, N.A. “On the Possibility of Experimental Investigation of the Properties of Time.” *Time in Science and Philosophy*, Prague (1971), pp. 111-132. See also “Causal or Asymmetrical Mechanics in Linear Approximation,” Pulkovo, GAO AN SSSR (1958), page 90. See also “On Some Properties of Time Discovered by Astronomical Observations,” *Problemy Issledovaniya Vselenoi* (1980) #9, page 76. See also “Selected Works” (1991) Leningrad State University, page 448.

¹⁵² Veinik validation of Kozyrev’s test results see Veinik A.I., “Termodinamika Realnykh Protseessov” [Thermodynamics of Real Processes], Minsk, Nauka I Tekhnika (1991) page 576 (Russian)

¹⁵³ Free falling gyroscopes, see Hayasaka H., Takeuchi S. “Anomalous Weight Reduction on a Gyroscope’s Right Rotation Around the Vertical Axis of the Earth.” *Physics Review Letters* (1989), #25, page 2701.

¹⁵⁴ Polyakov S.M., Polyakov O.S., “An Introduction to Experimental Gravitonics.” Moscow, Prometei (1988) page 136 (Russian)

violation of Newton's laws of mechanics demonstrated by gyroscopic systems was caused by torsion fields, generated by the spinning of masses.

From the mid-1950's to the late 1970's, N.A. Kozyrev [with V.V. Nasonov] conducted astronomical observations using a receiving system of an entirely new and novel variety. When his telescope was directed at a selected star, the detector [designed by N.A. Kozyrev and V.V. Nasonov] positioned within the telescope registered the incoming signal even if the main mirror of the telescope was shielded by dense metal screens. This strategy relied on the notion that electromagnetic waves [in the form of light] embody an intrinsic component which cannot be shielded by dense metallic screens. When the telescope was directed not at the visible position but at the true position of the star, calculated from sidereal tables and ephemeris charts, the detector then registered an incoming signal that was much stronger than the one received by targeting the apparent visible location. The detection of the true positions of different stars using this means could only be interpreted as a function of the detection of radiation emitted by the star which exhibited transport velocities billions of times greater than the speed of light. Kozyrev also found that the detector registered an incoming signal when the telescope was directed at a position symmetrical to the visible position of a star, relative to its true position. This fact was interpreted as a detection of the future positions of stars.¹⁵⁵

In the late 1980's and early 1990's, astronomical observations using Kozyrev-type detectors were successfully conducted by a group of academicians supported by the Russian Academy of Sciences under the direction of M.M. Lavrentiev. While the sky was scanned by the shielded telescope equipped with a Kozyrev-type gravimetric detector, it registered signals coming from the visible position of each star, the true position and also a position symmetrical to the visible position of the star relative to its true position. M.M. Lavrentiev could not provide a theoretical interpretation for these observed results.¹⁵⁶

In 1992, these experiments were successfully repeated by the A.E. Akimov group at the Main Astronomical Observatory of the Ukraine Academy of Sciences [Kiev] and at the Crimean Astrophysical Observatory [Nauchnyi]. The results obtained from these experiments were interpreted as torsion wave detections. Stars are objects which demonstrate significant angular momentum.¹⁵⁷ It is also interesting to note that detection of future star positions has also been subjected to rigorous theoretical interpretation. When considered in the context of G.I. Shipov's "Physical Vacuum Theory," it can be shown that torsion fields propagate in both the future and in the past.¹⁵⁸ There exist both theoretical and experimental evidence to support the notion that various psychophysical phenomena [e.g., precognition] are implicated by certain manifestations of torsion fields. The connection between psychophysical phenomena and torsion field dynamics are discussed in the papers produced by Akimov et al under the title "*Consciousness and the Physical World*."¹⁵⁹ Dr. Tom Bearden's work supports Akimov's independently obtained results.¹⁶⁰

¹⁵⁵ astronomical torsion detectors, see Kozyrev N.A. "On Some Properties of Time Discovered by Astronomical Observations," *Problemy Issledovaniya Vselennoi* (1980) #9, page 76. See also "Selected Works" (1991) Leningrad State University, page 448.

¹⁵⁶ Lavrentiev M.M., Yeganova I.A. Lutset M.K., Fomiykh S.F. "On the remote influence of stars on the resistor." *Doklady Akademii Nauk SSSR* (1990) vol. 314, #2 (Russian). See also "On the registration of the true position of the Sun." *Doklady Akademii Nauk SSSR* (1990) vol. 315, #2. (Russian). See also "On the scanning of the star sky with Kozyrev's detector." *Doklady Akademii Nauk SSSR* (1992) vol. 323, #4 (Russian).

¹⁵⁷ angular momentum of stars, see Akimov A.E., Kovalchuk G.U., Medvedev V.G., Lleinik V.K., Pugach A.F., "Preliminary results of astronomical observations using N.A. Kozyrev's method." Kiev (1992) **GAO AN Ukrainy**, preprint #GAO-92-5R (Russian). See also Akimov A.E., Pugach A.F., "To the question about the possibility of detecting torsion waves by astronomical methods." Moscow (1992) **CISE VENT**, preprint #25 (Russian)

¹⁵⁸ torsion propagation in past and future. See Shipov G.I., "Theory of the Physical Vacuum." *MoscowNT-Centr* (1993) page 362 (Russian)

¹⁵⁹ consciousness and the physical world. See Akimov A.E., Binghi V.N. "On physics and Psychophysics." Moscow (1993) **CISE VENT**, preprint #36, page 15

¹⁶⁰ Bearden, T.E., *Mind Control and EM Wave Polarization Transductions*, *Explore! Magazine*, Volume 9, Number 2, 1999, at page 59-108.

The concept of torsion fields is not new. Torsion field theory has been the subject of scientific investigation by theoretical physicists since at least 1913. A. Einstein demonstrated the existence of a close interconnection between gravitational forces and the curvature of space-time. At about the same time, E. Cartan demonstrated that a connection may exist between some physical values and another geometric abstraction which he called ‘torsion’.¹⁶¹ E. Cartan performed the first theoretical work devoted to developing a theory of gravitation demonstrating torsion, but in its early stages Cartan’s gravitation theory did not achieve a level of general acceptance because the phenomenon of spin had not yet been discovered. Nevertheless, Cartan was the first to point to the possibility of the existence of fields generated by spin polarity and angular momentum density [stated in terms of weighted waveform vector velocities].

In the late 1950’s and 1960’s, a number of attempts were made to complement Einstein’s theory of gravitational forces with torsion components. The first such attempts were made by T.W. Kibble¹⁶² and D.W. Sciama.¹⁶³ But the explosive increase in the number of publications devoted to exploring torsion theory only occurred after the first sensational reports of the dynamics involved in the torsion effect were released by Trautman and Kopczynski in 1973. In the works of A. Trautman and W. Kopczynski, it was persuasively demonstrated that the torsion of space-time have been shown to eliminate the cosmological singularities which are essential to non-stationary models of the Universe.¹⁶⁴ After the work of Trautman and Kopczynski was published, hundreds of other papers, books and monographs devoted to the theory of gravitation with torsion components were published over a short period. The so-called Einstein-Cartan theory [ECT – in some papers and references, Sciama-Tribble is also included] became the best known and most widely circulated of these reports.¹⁶⁵

In the framework of the ECT, spin-torsion interaction is described as a contact spin-spin interaction. Accordingly, the torsion of space-time fails to propagate in this theory as the potential separating quantum points approaches zero. In ECT, the constant of spin-torsion interactions is said to be proportionate to the product of the gravitational constant G and Planck’s constant h . Thus, in ECT the constant of spin-torsion interactions is approximately 27 orders of magnitude weaker than the constant of gravitational interactions. Accordingly, many authors have erroneously asserted, based on this result, that experimentally observed phenomena cannot be explained by torsion theories because torsion effects are much too weak to be observed or exert any meaningful influence on spin-spin interactions.

However, this conclusion holds true only for those theoretical considerations which consider the torsion field to be a static field, which cannot be dynamically propagated [as in ECT]. After the initial development of ECT, which describes torsion fields generated by spinning objects without propagation, a large number of non-linear torsion theories were developed. These theories described the dynamics associated with spinning sources which dynamically radiate torsion field waves. It has been clearly demonstrated that the Lagrangian of a spinning source which is dynamically propagating radiation contains a large number of terms with constants which do not depend on G or h . Thus, the constant of a spin-torsion interaction can be a significant, meaningful and measurable value at all scales. For instance, according to G.I. Shipov’s torsion theory,¹⁶⁶ the

¹⁶¹ Cartan’s torsion mechanics. See Cartan E. *Comptes Rendu*, Paris (1922), #174, page 539.

¹⁶² Kibble T.W.B. *Journal of Mathematical Physics* (1961), vol. 2, page 212

¹⁶³ Sciama D.W. *Review of Modern Physics* (1964) vol. 36, page 463

¹⁶⁴ Trautman’s torsion field models. See Trautman A., *Symposium of Mathematics* (1973) Vol. 2 #1, page 139. See also Kopszynski W. “A Non-singular Universe with torsion.” *Physics Letters A* (1972), #39, page 219. See also (1973) #43 page 63.

¹⁶⁵ Hehl F.W. “Spin and torsion in general relativity. I: Foundations.” *GRG* (1973) #4, page 333. See also Hehl F.W., Heyde P., Kerlick G.D., Nester J.M. “General Relativity with spin and torsion: Foundations and prospects.” *Review of Modern Physics* (1976), #3, page 393. See also Hehl F.W. “On the kinematics of the torsion space-time.” *Foundation of Physics* (1985) vol. 15 #4, page 451.

¹⁶⁶ Shipov’s torsion theory. See Shipov G.I., “Theory of the Physical Vacuum.” *MoscowNT-Centr* (1993) page 362 (Russian). See also Shipov G.I., “The theoretical evaluation of electro-torsion radiation.” MITPF preprint #1, Moscow (1995)

constant of dynamic spin-torsion interactions must be valued at no less than 10^{-5} to 10^{-6} . It should be noted here that the correctness of this evaluation has been confirmed experimentally by a number of researchers.¹⁶⁷

E. Cartan was the first to theoretically investigate the physical properties of fields generated by the spin-polarity and angular momentum density of rotating objects. The phenomena presented in the experimental investigations of gyroscopic systems appeared to be the natural manifestation of propagating torsion fields. Probably the first researchers to interpret the observed 'anomalous' variations in gyroscopic weight as a manifestation of torsion fields [generated by spinning gyroscopes] were Hayasaka and Takeuchi. It is important to note that in order to demonstrate the effect described by Hayasaka, the gyroscope must be subjected to a non-stationary rotation.¹⁶⁸ For instance, N.A. Kozyrev and A.I. Veinik employed specially engineered vibrations to create a dynamic environment. In Hayasaka's experiments, free-falling gyroscopes were used.¹⁶⁹ This important condition has not been taken into consideration by those researchers who have reported the absence of any weight variation in their experiments.

Torsion fields have been experimentally shown to be generated by a classical spin¹⁷⁰ or by the spin-polarity and angular momentum density demonstrated on a macroscopic scale. Torsion field characteristics differ substantially from the characteristics of electromagnetic and gravitational fields. Torsion fields demonstrate axial symmetry, unlike electromagnetic and gravitational fields which demonstrate central symmetry. There exist both left and right torsion fields, depending on the classical spin orientation or rotational orientation. If the rotation of a gyroscope [for example] including classical spin components is stationary [i.e., if the angular velocity is constant], the rotating mass is distributed uniformly relative to the rotational axis. If precession and nutation¹⁷¹ are absent, then this object will demonstrate a static torsion field. The static torsion field exists in the region of space within a certain distance from the source. If the rotation is non-stationary, however, then this object generates a propagating torsion radiation known as a torsion wave.

Unlike electromagnetic waves, torsion waves transmit information without transmitting energy. They propagate through physical media without interacting in the traditional sense with the media. But propagating torsion fields have been shown by many experimenters to alter the spin state of physical media. Thus, torsion fields can be detected by various types of detectors. Torsion fields cannot be shielded by most materials, but they can be shielded by materials having certain spin-structures.¹⁷² The lower bound of torsion signal velocity

¹⁶⁷ Experimental verification of spin-torsion constants. See ¹⁶⁷ Kozyrev, N.A. "On the Possibility of Experimental Investigation of the Properties of Time." *Time in Science and Philosophy*, Prague (1971), pp. 111-132. See also "Causal or Asymmetrical Mechanics in Linear Approximation," Pulkovo, GAO AN SSSR (1958), page 90. See also "On Some Properties of Time Discovered by Astronomical Observations," *Problemy Issledovaniya Vselennoi* (1980) #9, page 76. See also "Selected Works" (1991) Leningrad State University, page 448. See also Veinik A.I., "Termodinamika Realnykh Protsessov" [Thermodynamics of Real Processes], Minsk, Nauka i Tekhnika (1991) page 576 (Russian). See also Veinik A.I., Komlik S.F. "Complex determination of chrono-physical properties of materials." Minsk, Nauka i Tekhnika (1992), page 96 (Russian).

¹⁶⁸ non-stationary rotation see Shipov G.I. "On using of vacuum torsion fields for movement of mechanical systems." Moscow (1991) **CISE VENT**, preprint #8, page 50

¹⁶⁹ gyroscope experimental protocols. See Hayasaka H., Takeuchi S. "Anomalous Weight Reduction on a Gyroscope's Right Rotation Around the Vertical Axis of the Earth." *Physics Review Letters* (1989), #25, page 2701.

¹⁷⁰ torsion field with classical spin. See Ternov I.M., Bordovitsyn V.A. "On modern interpretation of Ya. I. Frenkel's classical theory of spin." *Uspekhi Fizicheskikh Nauk* (1980) vol. 132, #2, page 345 (Russian)

¹⁷¹ **nutat**ion: in astronomy, a small irregularity in the precession of the equinoxes. Precession is the slow, top-like wobbling of the spinning Earth, with a period of about 26,000 years. Nutation (Latin: *nutare*, "to nod") superimposes a small oscillation, with a period of 18.6 years and an amplitude of 9.2 seconds of arc, upon this great slow movement. The cause of nutation lies chiefly in the fact that the plane of the moon's orbit around the Earth is tilted about 5° from the plane of the Earth's orbit around the Sun. The Moon's orbital plane precesses around the Earth's in 18.6 years, and the effect of the Moon on the precession of the equinoxes varies with this same period. The British astronomer Sir. James Bradley announced his discovery of nutation in 1748

[www.Britannica.com/seo/n/nutation/].

¹⁷² torsion field shielding. See Shipov G.I. "Theory of the Physical Vacuum," Moscow (1993) NT-Centr, page 362. See also Akimov A.E., "Heuristic Discussion of Search For Long Range Interactions. The EGS-concepts." "Journal of New Energy News, Winter 1997, Vol.2, No. 3-4, pages 59-80, including 177 studies, references and suggested readings; see also, M. Talbot, *The Holographic Universe*, HarperCollins, NY (1991). ISBN: 0-06-092258-3.

is estimated at $10^9 \times C$, where C is the velocity of light. This is due to the fact that torsion fields are identical to the transverse spin polarization of the physical vacuum.¹⁷³ When considered in terms of time-polarization of the transverse EM wave functions, torsion fields have been shown to operate at infinite distances without measurable time differentials or significant field attenuation.¹⁷⁴

It should be noted that the spatial configuration of the torsion field generated by a spinning particle differs from the spatial structure of an ‘artificially’ rotated object such as a gyroscope. Torsion fields are generated not only by a single spinning particle, but also by an ensemble of particles. This situation is similar to that demonstrated by electricity, where we often encounter the collective electric fields generated by an ensemble of electrical charges such as atomic nuclei, atoms, charged bodies, etc. Thus, any nuclear spin-polarized target is the source of a torsion field. This fact has been repeatedly observed and verified by numerous research groups. Since analogous spins attract and opposite spins repel,¹⁷⁵ the interaction of a spin-polarized particle with a spin-polarized target nucleus results in the appearance of ‘anomalous’ forces which depend on mutual spin orientation of the particle and the target, as demonstrated by the experiments of A.D. Krisch.¹⁷⁶ Since all substances [except perhaps some amorphous materials] have their own unique stereochemistry, which determines not only the location of atoms in molecules but also determines their mutual spin orientation, the superposition of the torsion fields generated by the atomic and nuclear spins of each molecule determines the intensity of the torsion field in the space surrounding each molecule. The superposition of all these torsion fields determines the intensity and spatial configuration of the characteristic torsion field for that substance. Thus, each substance possesses its own uniquely configured torsion field and, by definition, each physical object in living or non-living nature also can be described and recognized in terms of its unique torsion field signature.

The torsion fields associated with any physical object can be detected by a variety of methods.¹⁷⁷ Torsion fields can be observed visually by the Kirlian method.¹⁷⁸ Torsion fields of various objects can also be visually observed by humans adept at certain ‘psychic’ skills. This is usually interpreted as an ‘aura’ observation.¹⁷⁹

The property which is open to influence by torsion fields is defined as the spin. Thus the structure of the torsion field of every physical object can be altered by the influence of an external torsion field. As a result of such an influence, the configuration of the torsion field will be fixed as a meta-stable state [as a transverse spin polarization state] and will remain intact even after the dynamic source of the external torsion field is moved to another region of space. Thus, torsion fields of certain spatial configurations can be ‘recorded’ on any physical object. This fact has been repeatedly observed and experimentally verified by a number of credible researchers.¹⁸⁰

The magnetization of ferromagnets results in the appearance of a collective magnetic field. But as a matter of fact, the sequencing of the orientation of magnetic moments automatically results in a sequencing of classical spins which are generated by the motion of electrons in circular molecular currents. Accordingly, the magnetization of ferromagnets results not only in the appearance of a collective magnetic field, but in the

¹⁷³ transverse wave polarization of the physical vacuum. See Akimov, *ibid.*

¹⁷⁴ Bearden, T.E., *Mind Control and EM Wave Polarization Transductions*, *Explore! Magazine*, Volume 9, Number 2, 1999, at page 59-108.

¹⁷⁵ like spins attract. See Shipov G.I. “Theory of the Physical Vacuum,” Moscow (1993) NT-Centr, page 362.

¹⁷⁶ Krisch *loc.cit.*, see footnotes #26, 27

¹⁷⁷ torsion field detection. See Kozyrev, Veinik *loc.cit.*

¹⁷⁸ Kirlian method for observing torsion fields. See Kirlian S.D., Kirlian V.H. “Fotografirovaniye I vizualnoye nabludeniye pri posredstve tokov vysokoi chastoty.” *Zhurnal anuchnoi I prikladnoi fotografii I kinematografii* (1961) vol. 6, #6 (Russian)

¹⁷⁹ Brennan B. *Hands of Light: A Guide to Healing Through the Human Energy Field*, Bantam Doubleday Dell Pub (Nov 1993). ISBN: 0553345397.

¹⁸⁰ verification of torsion field attributes. See Lavrentiev M.M., “On Registration of Reaction of Matter to the External Irreversible Process.” *Koklady Akademii Nauk SSSR* (1991) vol. 317, #3 (Russian). See also Kozyrev *ibid.* See also Veinik *ibid.* See also Grebennikov *ibid.*

appearance of a collective torsion field as well. Thus, any permanent magnet possesses its own torsion field. This fact was first experimentally discovered by A.I. Veinik¹⁸¹ and experimentally satisfies the requirements of complementarity.

Since every physical object possesses its own torsion field, then the torsion field of a permanent magnet is able to affect any physical object. Understanding this important property of magnetic fields enables us to understand a variety of otherwise inexplicable phenomena such as the anomaly known as the ‘magnetism of water,’ which consists of altering the biological activity of water [including distilled water] by subjecting it to the influence of a magnetic field. Since distilled water is diamagnetic, then the process of influencing it with a magnetic field makes no sense from a classical point of view. But the magnetization of water effect can be clearly detected by a variety of methods.¹⁸² In this case, the effect is caused not by a magnetic field but rather by a torsion field which alters the dynamically propagated attributes of the torsion field of the water. In the framework of the theory of electro-torsion interactions,¹⁸³ it is shown that if an electrostatic or electromagnetic field exists in one region of space, then a torsion field must always exist in that region of space as well. The law of complementarity demands it. Electrostatic or electromagnetic fields without a torsion component do not exist. This was rigorously demonstrated by G. I. Shipov.¹⁸⁴ Strong torsion fields are generated by high electrical potentials and by devices having organized circular or spiral electromagnetic processes. The first researcher known to have investigated and successfully harnessed the torsion fields created by such devices was Nikola Tesla.¹⁸⁵ In Russia, similar results were obtained by S.V. Avramenko, G.F. Ignatjev and others.

Using the principles associated with torsion fields as described above, it is possible to classify at least three different types of torsion generators. The first type employs materials/ objects having specially organized spin polarization [e.g., permanent mono-polar magnets]. In the second type of generator, the torsion component of electromagnetic or electrostatic fields is employed [e.g., generators design engineered by S.V. Avramenko, G.F. Ignatjev, G.A. Sergejev, S.N. Tarakhtiy and others]. The third type of torsion generator employs a specially organized rotation of a material substances such as generators design-engineered by A.I. Venik,¹⁸⁶ K.N. Perebeinos’ generators with mechanically rotating masses,¹⁸⁷ and V.M. Yurovitsky’s generators, which are based on the rotation of magnetic fields.

V.M. Yurovitsky was the first to point out that many otherwise inexplicable phenomena could be explained as a result of a manifestation of long-range fields generated by classical spin or spin-polarity and angular momentum density.¹⁸⁸ Later generators based on mechanically rotating magnets were developed by V.V. Bobyr and others. As a result of a series of experiments conducted at the I.N. Frantsevich Institute for Problems of Materials Sciences in Kiev, Ukraine, it was established that torsion radiation produced by this sort of generator is able to alter the inner spin-structure of any substance. It was also established that an identical alteration of the structure of various substances can be achieved by ‘sensitives’ [people gifted with psychic abilities], and could not be achieved by the use of any other known technologies.¹⁸⁹

¹⁸¹ Veinik experimental verification of torsion fields in permanent ferromagnets [ibid 5]

¹⁸² detecting magnetization of water via torsion fields. See Veinik ibid [“Thermodynamics of Real Processes”]

¹⁸³ theory of electro-torsion interactions. See Shipov G.I. ibid @footnote #50

¹⁸⁴ Shipov’s demonstration of complementary existence of torsion fields. See footnote #50

¹⁸⁵ Nikola Tesla. See I. Hunt, W.W. Draper, *Lightning in His Hand: The Life Story of Nikola Tesla*. Sage Books, Denver (1964).

¹⁸⁶ Veinik’s torsion field generator design. See footnote #5

¹⁸⁷ Perebeinos torsion field generator design. See Perebeinos K.N. “An Estimate of the Possibility of Using Gravitational Waves for Communications Purposes”, *Ochyot po NIR* Moscow (1966), page 17 (Russian)

¹⁸⁸ Yurovitsky’s angular spin momentum density devices. See Zaitsev V.I “Istoriya odnogo izobreteniya.” *Ixobretatel I Ratsionalizator* (1982) #11 (Russian)

¹⁸⁹ I.N. Frantsevich IPMS torsion field work. See Akimov A.E., Boichuk V.V., Tarasenko V. Ya. “Long-range Spinor Fields. Physical Models.” Kiev (1989), Institut problem materialovedeniya, preprint #4 (Russian)

A fourth type of torsion field generator is also known to exist. Torsion fields can be generated as the result of a distortion of the geometry of the physical vacuum. Every object having a certain surface geometry [archetypal form] will simultaneously generate left and right torsion fields of a certain configuration, depending on the geometry of the object. This can be detected by various types of physical, chemical and biological indicators. The unusual effects demonstrated by pyramids, cones, cylinders, flat triangles, etc. have been repeatedly observed and documented by many researchers in different countries. Researchers have described these phenomena by giving them names associated with the observed effects. For example, terms commonly used in the literature include ‘radiesthesiatic radiation,’¹⁹⁰ ‘cellular and hollow structure effect,’¹⁹¹ ‘shape power,’ ‘pyramid power,’ etc. In the USSR, the effects demonstrated by objects with various geometries have been investigated by A.I. Veinik,¹⁹² V.S. Grebennikov,¹⁹³ Yu.V. Tszyan Kanchzhen, I.M. Shaktparonov, A.A. Beridze-Stakhovsky and others.

In the mid-80’s, V.S. Grebennikov found that the empty honeycomb of certain bees could have an influence on biological objects placed in close proximity, ranging from micro-organisms to humans. The affected person basically felt sickness, illusions of falling, flying, etc.¹⁹⁴ The observed influence could not be shielded by Faraday-type EM cages or any known materials. As the result of the experiments he conducted, it was determined that the effect was caused by the shape/ form of the bee’s honeycomb. This construction of the experimental evidence facilitated the development of various types of devices having certain geometric proportions which have been shown to demonstrate the same effects. V.S. Grebennikov has interpreted the discovered effect as a “resonance interaction” between an organism and objects of a certain specific shape.

In the late 80’s, an experimental investigation of the torsion fields generated by objects having various surface geometries was conducted by A.E. Akimov and his group at the Physics Institute of the Ukraine Academy of Sciences and at Chernovitsky University. In particular, the influence of torsion fields generated by cones of different sizes and proportions upon various processes was investigated. It was experimentally established that objects having geometrical sizes that obey the rule known as the ‘golden section’¹⁹⁵ can be described as passive torsion generators.¹⁹⁶

Experts in meditation have long known that the shape of the building in which they meditate plays an important role in the process of meditation. Thus the spires and domes of churches and temples [as well as pyramids] can be considered ‘passive’ torsion field generators. The torsion fields propagated by a meditating person can be significantly magnified if the meditation takes place in a building having particular geometric proportions.¹⁹⁷ This fact is employed in the generators developed by A.A. Beridze-Stakhovsky. Over the course of the last 30 years, torsion generators based on the shape effect have been developed by a number of specialists.

¹⁹⁰ radiesthesiatic radiation. See Pagot J. “Radiesthesie et emission de forme.” Paris (1978) page 277

¹⁹¹ cellular and hollow structure effects. See Grebennikov V.S. “On the physical-biological properties of bee’s nests.” *Sibirskii vestnik sel'skhozoozhaistvennoi nauki* (1984) #3 (Russian)

¹⁹² Veinik investigations of geometric shapes in torsion field propagation [5]

¹⁹³ Grebennikov loc.cit.

¹⁹⁴ Grebennikov, loc.cit.

¹⁹⁵ The Golden Mean is a ratio that is present in the growth patterns of many things--the spiral formed by a shell or the curve of a fern, for example. The Golden Mean or Golden Section was derived by the ancient Greeks. Like ‘pi’, the number 1.618... is an irrational number. Both the ancient Greeks and the ancient Egyptians used the Golden Mean when designing their buildings and monuments. The builders of Paestum used the Golden Mean in their temples. Artists as diverse as Leonardo da Vinci and George Seurat used the ratio when constructing their paintings. These artists and architects discovered that by utilizing the ratio 1 : 1.618..., they could create a feeling of order in their works. Today, artists still use this proportion in their works, and scientists, like Roger Penrose, are discovering new things about the Golden Mean and its place in science, mathematics, and nature.

¹⁹⁶ archetypal shapes as passive torsion field generators. See Akimov A.E., Kurik M.V., Tarasenko V. Ya., “The Influence of Spinor (Torsion) Field on the Process of Crystallization of Micellar Structures.” *Biotekhnologiya*, (1991) #3 (Russian)

¹⁹⁷ Laszlo E., *The Whispering Pond: A Personal Guide to the Emerging Vision of Science*, Element Books, Inc., 1996.

The fifth type of torsion field generator employs a combination of the principles embodied in the first four. For instance, a combination of high frequency electromagnetic oscillations and topological effect [archetypal shape effect] is used in the generators developed by Yu.V. Tszyan Kanchzhen. The operation of his devices has been interpreted as a means for facilitating 'high frequency bio-communication.'¹⁹⁸

An analogous effect was discovered in the 1960's by the V.P. Kaznacheev group. Their research was related to the theoretical and experimental investigations conducted in the 1920's by a A.G. Gurvich. In the 1920's, Gurvich experimentally discovered the super-weak radiation emitted by cells which has been called 'mitogenic radiation.' Gurvich found that mitogenic radiation of one cellular culture was able to stimulate or suppress the vital activity of another cellular culture.¹⁹⁹ In the 1960's, Kaznacheev's group conducted a series of experiments using the following protocols:

- An infected cellular culture was encapsulated in an airtight enclosure.
- Another cellular culture that was intact [not infected] was encapsulated in another sealed structure.
- The two enclosures were attached together so that optical contact alone [via a glass or quartz plate] could operate between the two enclosures.
- The airtight seals of both enclosures remained intact.
- The degradation of the infected cellular culture was observed.
- After a certain period of time, the analogous process was observed to manifest in the other enclosure. The cells in the intact enclosure became infected in spite of the sealing of both enclosures.

Many different cellular types were used in his experiments, including cells of the human organism. In 1973, this effected was announced as the discovery of 'remote intercellular interactions in the system of two cultures' in the prestigious *Official Bulletin of the Soviet Ministry of the SSSR* in 1973.²⁰⁰

V.P. Kaznacheev relied on an the Standard Model of electromagnetics to interpret the phenomenon observed during this series of experiments. But in other experiments conducted by several other equally proficient research groups, it was established that the main factor in Kaznacheev's 'mitogenic radiation effect' [as well as the similar results obtained by Gurvich and Tszyan Kanchzhen] is that the intercellular interactions were the result of interaction between the torsion fields of the test cells. In particular, this conclusion was confirmed during experiments conducted by the L.N. Lupichev group in the late 1980's.²⁰¹ In the Lupichev experiments, the distant influence of various chemical substances on the cells was investigated. It was established that it is possible to create conditions where the influence can be detected even if the chemical substance is shielded by metal screens. Thus, the main factor in the observed effect had a non-electromagnetic nature.

¹⁹⁸ Tszyan Kanchzhen Yu.V. Torsion Field Generator: An object [a hen] is placed into the receiver-enclosure. Another object [a duck] is placed in the transmitter enclosure. The transmitter enclosure consists of a three-dimensional shape defined by a pentagon. Cones are placed on the sides of these pentagons. The object is subjected to the influences of a generator of high frequency [-11 GHz] electromagnetic oscillations. The torsion component of these EM oscillations excites the torsion field of the object. This torsion field is also intensified by the topological [shape] effect. The excited torsion field is concentrated at the tops of the cones and then is directed to the receiver enclosure. As a rule, after being subjected to this for several days, the objects exhibited the following results: If a hen is placed in the receiver enclosure and a duck is placed in the transmitter, then a hen gradually begins to assume physical features associated with the physiognomy of a duck. For example, during prolonged exposure to these fields, a hen will begin to grow webbing between its claws.

¹⁹⁹ Gurvich and mitogenic radiation. See Gurvich @ footnote #4.

²⁰⁰ remote cellular interactions. See Kaznacheev V.P. "Discovery #122. Remote Intercellular Interactions in the System of Two Cultures." *Ofitsialnyi buleten po delam izobryetenii I otkrytii pri Sov. Min. SSSR* (1973) #19

²⁰¹ Lupichev's experiments. See Lupichev L.N., Lupichev N.L., Marchenko V.G. "Distant Interactions of Material Objects in Nature." *Issledovaniye dinamicheskikh svoistv raspredelyonnyhsred*, Moscow, **IFTP AN SSSR** (1989) page 3-12]

The second important confirmation of the torsion nature of detected interactions was the fact that screening by aluminum was efficient while other screening materials were not. It should be noted that torsion fields in some cases can be screened by aluminum. This fact was first discovered by N.A. Kozyrev²⁰² and later was repeatedly confirmed by other researchers. Kozyrev discovered that torsion waves can be reflected by using a mirror equipped with a finely polished aluminum coating. This effect was employed by Kozyrev and others to conduct their astronomical survey of the heavens. Aluminum mirrors were used to reflect torsion waves via the mirrors of the telescope, working with undiminished reliability even if those mirrors were shielded by various types of metallic and non-metallic screens.²⁰³

Over the course of the past 30 years, various devices classified as torsion field generators have been patented in a number of countries. As a rule, no theoretical interpretation of the work of the inventors has been filed with the patent application. Devices which employ a combination of topological effects and an intense electric field are described in a French patent.²⁰⁴ The construction of the devices described in this patent document are similar to Yu.V. Tsyhan Kanchzhen's generator. According to the patent, 2 pairs of electrodes having a voltage between 60-300 kV are connected to a 16-sided prism. On one part of its sides a series of cones are arrayed. The authors of the patent claim that this generator reduces gravitation, accelerates the speed of chemical reactions and demonstrates other important effects. Since the generation of static torsion fields results in transverse spin polarization of the physical vacuum, in a meta-stable state, the device is also reported to create a residual field effect which lasts up to four days after the generator has been turned off. An analogous principle is employed in one of Veinik's generators.²⁰⁵ The Veinik device is reported to have demonstrated various physiological effects as well. The documented physiological effects persisted and could be measured for several days after the generator had been turned off and removed to another location. A number of generators using the combination of topological effects and electromagnetic fields have been developed by I.M. Shakhparonov and others.

The residual field effect demonstrated by these investigators is deemed to be the same as that discovered and documented in 1997 by V. Poponin during his work with the Russian Academy of Sciences. The results of that study are referred as the 'Phantom DNA effect.'²⁰⁶ Poponin's group twice disassembled and re-assembled

²⁰² Kozyrev – aluminum shielding of torsion fields. Loc.cit. "On the Possibility of Experimental Investigation of the Properties of Time."

²⁰³ torsion field shielding in telescopes. Kozyrev loc.cit.. See also Lavrentiev loc.cit.

²⁰⁴ French torsion field patent. See "Appareillage d'amplification on des emission des aux formes."Patent Republique Francaise #2,421,531 (30November1979)

²⁰⁵ Veinik's torsion generator and residual field effects. See Veinik ibid

²⁰⁶ V. Poponin, "Phantom DNA Effect," As this manuscript was being prepared, report of an extraordinary experimental procedure developed in Moscow by a group of Russian scientists was released via the world wide web and the Internet. Dr. Vladimir Poponin and a team of scientists and technicians sponsored by the Russian Academy of Sciences discovered an anomaly which cannot be accommodated by the Standard Model. Poponin's revolutionary discovery unequivocally demonstrates that nature at all scales is non-local in its characteristics and behaviors. Non-locality is not, as some have asserted, an artificial or rare phenomenon.

It is of more than passing interest that the results described in Dr. Poponin's study of a previously undiscovered attribute of human DNA were discovered while Russian scientists were examining the behavior of finely particulated sand. This new phenomenon, dubbed the *DNA Phantom Effect* by researchers, was first observed as an unexpected effect which occurred during a series of experiments designed to measure the electromagnetic and harmonic resonance attributes of DNA. A MALVERN laser photon correlation spectrometer was used to measure the light scattering effect produced by a carefully controlled cascade of free-falling, very finely particulated dust particles.

In the experiments, finely particulated dust was allowed to fall freely in measured quantities from the top of a light scattering chamber, from which all other particulates had been removed. The interior of the chamber was shielded from all other electromagnetic field effects and irradiated with diffused, extremely low-level laser light. The purpose of the MALVERN device was to trace the patterns created by the falling of each particle by three dimensionally mapping the cascading trails over a series of precisely similar trials. Once a baseline of randomness had been developed – that is, when it became clear that the same amount of particulate could be reliably predicted to behave in precisely the same random manner with each release in this carefully controlled environment – a new factor was added to the experiment.

At the base of the chamber, Dr. Poponin and his colleagues introduced a petrie dish. The dish had been sterilized prior to being introduced to the light scattering chamber. The introduction of the petrie dish exerted no measurable effect on the light scattering behavior of the free falling dust particles.

their experimental apparatus in order to eliminate any possibility that the residual non-local field effect detected in the light scattering chamber was the result of anything other than the introduction of human DNA to a pristine experimental environment.

Torsion Field Radio

Most drivers become annoyed when a radio station's signal weakens as they drive under overpasses, etc. The theoretical maximum capacity of torsion field communications is apparently 40 billion channels of radio and television through the entire earth without attenuation at a speed of one billion times the speed of light. A radio station using the torsion field for its medium of communicating could have its signal picked up

Next, the petrie dish was filled with distilled water. Again, as with the empty petrie dish, the distilled water was shown by repeated measurements to exert no effect.

In subsequent trials, ultra-pure granules of NaCl were added to the distilled water in concentrations which approximate the salinity of human blood. Again, the addition of the ionic salts to distilled water were demonstrated to exert no measurable effect.

Finally, Poponin introduced a petrie dish containing a controlled volume of live human DNA in the slightly saline solution. When the light scattering behavior of the free falling particulate was measured in the presence of living DNA and the same low-level, highly diffused laser light as had been used on each prior trial, an extraordinary thing occurred. The light scattering pattern produced by the cascading cloud of dust particles suddenly became no longer random but demonstrated patterns which were "distinctly different from the one obtained before the DNA was placed in the chamber." In the words of Dr. Poponin,

After duplicating this result many times and checking the equipment in every conceivable way, we were forced to accept the working hypothesis that some new field structure is being excited from the physical vacuum. We termed this the DNA phantom effect in order to emphasize that its origin is related to physical DNA.

After the discovery of this effect, Dr. Poponin's group conducted a more rigorous and continuous study of the phenomenon. They discovered that, as long as the space in the scattering chamber was not disturbed, they were able to continue to measure the DNA Phantom Effect for a long period of time after the petrie dish containing the DNA sample had been removed.

In several cases, we have observed it for up to a month. It is important to emphasize that two conditions are necessary in order to observe the DNA Phantom Effect. The first is the presence of the DNA molecule and the second is the exposure of the DNA to weak coherent laser radiation. This last condition has been shown to work with two different frequencies of laser radiation.

Perhaps the most important finding of these experiments is that they provide an opportunity to study non-local field effects on strictly scientific and quantitative grounds. This is made possible because of the phantom field's intrinsic ability to couple with conventional electromagnetic fields. The value of the coupling constant between the DNA phantom field and the electromagnetic field propagated by the laser's radiation can be estimated from the intensity of the scattered light.²⁰⁶ The importance of this discovery and the means by which it is being measured and evaluated simply cannot be overstated.

Dr. Poponin and his team have verified the existence at the DNA level of the mysterious field referred to by Dr. Candace Pert in her ground breaking work on neuropeptides. The non-local field effects described in Dr. Poponin's research files correspond precisely to the torsion field attributes identified above. Perhaps most importantly, Poponin's work provides an unexpected and therefore important independent verification that all living DNA produces a non-local torsion field effect as an attribute of its basic architecture. The DNA Phantom Field appears to operate non-locally and demonstrates a quantifiable and measurable residual field effect at distances of up to one meter, under experimentally verified conditions. The mathematical formulation which describes what the DNA Phantom Field is and how it may operate at this level is more fully described in the mathematical formulation known as the Fermi-Pasta-Ulam lattice (FPU), which describes a new class of localized solutions to anharmonic, nonlinear excitations (NLE). In Dr. Poponin's words,

It is fortunate that the experimental data provides us with qualitative and quantitative information about the nonlinear dynamical properties of the phantom DNA fields. Namely, these experimental data suggest that localized excitations of DNA phantom fields are long living and can exist in non-moving and slowly propagating states. This type of behavior is distinctly different from the behavior demonstrated by other well known nonlinear localized excitations such as solitons which are currently considered to be the best explanation of how vibrational energy propagates through the DNA.

anywhere in the world without dropouts. A torsion field radio station could broadcast directly from its studio without the expense and energy cost of sending its signal up to a radio signal transmitting tower. The drastically reduced cost of radio (and even television) broadcasting may hopefully lessen the need to generate revenue with commercials!

For more on the crystalline lattice structure that makes possible torsion field communications see “IPMS Advanced Solar Photo-Voltaic Crystal Lattice Cells” and “Torsion Field Attributes” below.

IPMS Advanced Solar Photo-Voltaic Crystal Lattice Cells

In 1989, during another flight of the Space Shuttle Atlantis, the U.S. military photographed a newly launched Soviet communications satellite in geo-synchronous orbit above Moscow. There were several things about the new Soviet satellite which were unusual. First, spectroscopic investigation of the signature of the satellite revealed the familiar tell-tale presence of nuclear material located in the aft section of the satellite. It was presumed (incorrectly, it later turned out) that this signature confirmed that the satellite was, indeed, powered by a small on-board thermo-nuclear reactor.

What did not make sense, though, was the fact that the power requirements, which American military analysts believed were needed to support the variety of functions being performed by the Soviet satellite, were believed to consume considerably more power than could possibly be produced by a nuclear reactor of the kind and size believed to be installed and operating on the satellite.

Further, the photographs revealed the presence of a peculiar kind of parabolic dish suspended from the nose of the satellite. It was shaped like the much larger satellite receiving dishes commonly used by television viewers in the West. The peculiar thing about this dish was that it was very small, less than three feet in diameter, and had a very flat parabolic surface. This meant that it did not focus the signals they presumed it received onto any boom-mounted collector or decoder device. No such device was mounted on or attached to the dish.

Finally, it appeared to be constructed of a material or combination of materials which was unknown at the time, but which appeared to be highly reflective, almost like a mirror. Interestingly enough, the dish was also apparently transparent to interstellar signals which originated behind it. For years it was believed that the strange parabolic device was a special kind of high-gain directional antenna. That assumption later proved to be totally false.

In fact, information recently supplied by the I.N. Frantsevich Institute for Problems of Materials Science (IPMS), Kiev, Ukraine, to support several of its patent applications confirms that the dish was constructed of the same crystalline lattice material which is used to construct the interior of exceptional energy storage devices, but built with some very special features. The purpose of the device was to convert sunlight and other ambient wavelengths of energy into ion flow or electrical current, in sufficient amounts to maintain the electronic and other operational functions of the satellite. In the West we refer to devices which act this way as photo-voltaic devices or solar cells. The device which looked like a high-gain antenna dish was certainly a solar cell, but it was much more than that.

The quantum physics and the new technologies which made it possible to produce the crystalline lattice structure of the energy storage devices also made it possible to produce a similar crystalline structure which was capable of simultaneously converting wavelengths of widely varying characteristics into ionic flow or electrical current. The strategy employed by this revolutionary new material worked across almost the entire spectrum of known wave lengths, from far out in the realm of extra-low frequency long wave lengths propagated by the original Big Bang all the way up through the visible light spectrum and beyond, into X-rays

and ultra-high frequency, ultra-short wavelength wave forms associated with pulsars, quasars and quantum singularities.

The quantum mechanics which describe the characteristics of the crystalline lattice structure recognize two distinct features of wave/particle propagation which are nowhere integrated in the linear quantum mechanics or solar cell technologies of the West. First, the characteristic of crystals which differentiates them from all other known material substances is that they resonate (or oscillate, to be more precise) at both primary and harmonic frequencies.

A crystal-based tuning fork which resonates at “A” natural will also resonate in sympathy with any harmonic of “A” natural propagated across the entire wave spectrum if the wave form is detectable and of sufficient intensity to activate the crystalline structure of the tuning fork.

The crystalline lattice of the Soviet solar cell was deliberately designed and constructed to resonate at all the harmonic frequencies of the entire wave length spectrum, as defined by six discrete bands which embrace all known wavelengths. These bands are each a harmonic of the next, and all of them cause excitation (oscillation) of the crystalline lattice structure at the same time.

This phenomenon reflects a new feature of quantum mechanics, instantaneous simultaneity of crystalline oscillation regardless of the distance of separation. The potential of this phenomenon in future applications is truly awesome. Properly harnessed, for example, this property of crystal structures as defined by the IPMS version of quantum mechanics could make it possible to communicate over vast distances with no time lag. The oscillation characteristics demonstrated by these structures operate outside the normal context of space-time.

Gary Vesperman happens to be the inventor of a major advance in torsion field communications – made possible by these special crystalline lattice structures. The maximum theoretical capacity of torsion field communications apparently is 40 billion channels of three-dimensional holographic television through the entire earth without attenuation at one billion times the speed of light.

It has long been recognized in the West that oscillating crystal structures can be engineered to create a usable flow of ions in the form of low-voltage direct electrical current. However, instead of relying exclusively on light in the visible spectrum alone to create ion flow, the Soviet system operates on all known ambient wave lengths simultaneously, in six harmonic resonant bands. It creates ion flow wherever and whenever such wave forms are present. It means that these devices operate on ambient heat remaining in a room or in the dead of night when there is no visible light present at all.

One more feature distinguishes the Soviet material from the Western photo-voltaic or solar cell. The Western cell operates by trapping photons of light in a cleverly designed network of glass, mirrors and other interconnected reflective materials which are deposited on a substrate of a dielectric material. When the volume of “photon” traffic striking the dielectric material reaches a minimal threshold, electrical current is created.

That is, when enough photons have been captured to excite the surface of the substrate by either directly impacting molecules on the substrate surface or by creating heat energy sufficient to cause those molecules to oscillate, ion flow is induced. It is not a particularly efficient method, but it is the best that has been devised in the West.

In the Soviet material, because photons are known to behave in precisely the same manner as electrons, the photons (which are present in all wave forms, including visible light) are simply introduced to the energy wells between the tips of the molecular pyramids on the sheets of crystal lattice which overlay each other. The

material is so efficiently designed that it actually absorbs (here is another place where imprecise common language gets us into technical difficulty) the individual photons in the same way it accommodates electrons.

During the discharge cycle, when a circuit is open and available, the photons simply follow the path of least resistance, which is out through the crystalline lattice and into an electrical circuit, energy storage device, or some other similar application.

The Soviet solar panel operates at a nominal efficiency of no less than 51% in the least consistent pieces which have been tested in the United States. The best pieces have produced test results demonstrating operating efficiencies in excess of 80%. These devices/materials produce electrical current at a higher rate per unit of exposed surface area in the dark of night than the best solar panel ever produced in the West will generate in the most ideal sunlight conditions.

The simple circular device attached to the Soviet satellite was a single solar cell which was used to power the entire ship and all its functions. The nuclear fuel signature detected by the Atlantis crew was nothing more than the emissions produced by a piece of spent nuclear fuel placed on board the satellite, intended to mislead the American surveillance team. It worked.

Advanced solar photo-voltaic cells produced by Em-Tech Technologies of Toronto, Canada, have demonstrated actual hands-on efficiencies in laboratory applications of more than 50%. These cells are based on designs developed by the IPMS. Theoretical models have yielded energy production efficiencies of more than 80%.

These cells operate on such wide band-widths and at such high efficiency rates that their performance characteristics in the dark of night exceed those demonstrated in broad daylight by the best current, state-of-the-art solar cells produced anywhere else in the world.

When applied to current global electric energy requirements for domestic, commercial, industrial and military use, the cost of electricity could be reduced to less than \$.002 per kilowatt hour, with the added capability of operating not only in daylight but at reduced loads throughout the night, regardless of weather, on virtually any scale.

For comparison, the very best solar cells ever produced in the West have been produced by the Japanese. These cells operate at a maximum of 19% efficiency. That is, they convert as much as 19% of the ambient visible sunlight shining on a clear, cloudless day into ion flow, which then becomes low-voltage direct electrical current flowing through a circuit. The Japanese panels require months per section to manufacture and literally cost more than their weight in gold to manufacture. They are very heavy and are so sensitive to vibration and calibration that once installed, they cannot be moved at all.

(Source: David G. Yurth, *The Anthropos Files: Tales of Quantum Physics from Another World – 2nd Edition*, 2007)

Phenomena Which Cannot Be Accommodated

SECTION ONE

LOOKING FOR SIMPLE, ELEGANT SOLUTIONS

CHAPTER EIGHT

Simple, Elegant Rules

Thus far, we have laid four essential foundational elements to support our new model. In the process, we have established that nature operates according to a set of simple, elegant rules at all scales.

The first cornerstone is that the fundamental building block of the cosmos is information. Everything consists of information. The corollary to this insight is the fact that light is both comprised of information at the primary scale, in the form of photons, and that light is by its unique nature the carrier of information through the physical domain. In Section Two, two additional attributes of light will be discussed – time domain polarization of photons as a distinct characteristic of the cosmos and the role of the interference fringe in information transfer functions.

Second, the rules governing the behavior of dissipative structures in closed systems, or those which are not self-organizing, drive the processes of chaotic, irreversible events²⁰⁷. The processes associated with self-organization, the self-driven processes of spontaneous emergence and catastrophic "avalanches," operate according to the rules of self-organizing criticality²⁰⁸. The contemporaneous operation of these two sets of rules, which are really complementary aspects of the same set of rules, govern the processes of self-organizing creation and destruction which operate side-by-side throughout the cosmos.

Third, the record of the evolution of all complex, self-organizing systems is manifested as a function of fractal geometry²⁰⁹. The fractal template defines the processes of evolution by repeating a set of simple, self-referencing functions in an infinite feedback loop to produce infinite variation, fundamental similarity and mutual exclusivity in the form of individuation. The process operates at every scale, from the Planck length to the infinite reaches of the cosmos. Its effect is to define forms and functions, with infinite variation and similarity occurring simultaneously, in every naturally occurring system. A key aspect of this function is that all the information contained in the entire system can be accessed through any detail and at every local scale. Fractal geometries constitute the local, linear component of information organization in the physical domain. Fourth, nature is holographic at all scales²¹⁰. The relationship between the defining attributes of the fractal geometries and the operating dynamics of holograms provides a revealing new insight - fractal geometry structures nature in such a way that all information about any part of the system is contained in every component of the system, at every locale and scale. Fractal geometry is local, observable and distinguishable in its most minute local characteristics.

Holographic functions operate in concert with the dynamics of fractal geometry by providing the mechanism which makes local information accessible non-locally, in all-where all-when. The hologram is the complementary counterpart of fractal geometry – it operates in a ??? which is non-linear and non-local at all scales. The holographic attributes of the cosmos operate at all scales in nature, from the Planck length to the ends of the cosmos, as an intrinsic attribute of reality-as-it-is. The Universe, it now appears, is a single, complex, self-organizing system. These components, operating together, comprise what physicist David Bohm described as the "implicate order" of the Universe²¹¹.

CHAPTER EIGHT

²⁰⁷ Prigogine, I., Stengers, I. *Order Out of Chaos: Man's New Dialogue With Nature*, Bantam, New York (April 1984).

²⁰⁸ Bak, P. *How Nature Works*, Springer-Verlag (New York @ Copernicus) 1996.

²⁰⁹ Clarke, A.C. *1984: Spring: A Choice of Futures*, Del Ray Books, Published by Ballantine Books, Serendib BV (1984) ISBN: 0-345-31357-7.

²¹⁰ Monoharan, H., Eigler, D. *Quantum Effect Might Be Used in Nanocircuits*, an online article by Alan Boyle, MSNBC, excerpted from *Nature*, February 2000. The lower part of the image shows a "corral" of cobalt atoms on a copper surface. The graph above the corral shows a steep peak where a magnetic cobalt atom was introduced - as well as a fainter peak, the "mirage" of the atom.

²¹¹ Bohm, D. *Wholeness and the Implicate Order*, Ark Paperbacks, London, Boston, Melbourne and Henley, Property of Routledge & Kegan Paul pic. (1980).

How Information is Transported

What remains, then, is for us to discover the means by which the information contained in a local address of the Universe can be accessed in another, regardless of the time, space or distance which separates them. So long as we subscribe to the Standard Model of physics in current use in the West, we should not expect to find what we are looking for. If everything is information; if the Milky Way Galaxy [for example] is an open, complex, self-organizing system, with a diameter of 100,000 light years; and if C , the speed of light, is the upper limit at which information can be transported in our Universe, how is it that the galaxy operates as a coherent self-organizing system, a cosmic sand pile operating at the point of criticality across vast distances? How is it that super galaxies consisting of millions of individual galaxies operate in the same way?

Clearly, notwithstanding recent attempts to explain this conundrum away by resorting to mathematical contortions of the laws of gravitational force, Dr. Gisin's experimental verification of the predictions made in Bell's Inequality Theorem cannot be disregarded. The non-local effect demonstrated by his experiments cannot be accommodated by merely tinkering with the mathematical functions associated with the Einstein-Podolski-Rosen formulation of the laws of gravitational force. It is likely, then, that something genuinely fundamental has been ignored in the construction of the Standard Model.

A New Approach

What we are proposing here is nothing less than a new Unified Theory of primary fields. We really have no choice. It is necessary because of the numerous important, irrefutable phenomenological anomalies [scientific jargon for things which are observed but cannot be explained] not accommodated by the current model of quantum mechanics. The basic idea is this: the Standard Model, which relies on four primary fields [strong and weak atomic forces, electromagnetic forces and gravitational forces] is incomplete and basically flawed in a number of primary aspects.

Two things should be kept in mind while we are working our way through this exercise. First, what we are doing here is perfectly straightforward. We are defining what needs to be done to bring the Standard Model into alignment with what has been experimentally verified. You do not need to be a theoretical physicist to understand these concepts. The prevailing notion that you have to have an advanced degree in mathematics or some sort of rocket science in order to comprehend this material is simply nonsense.

If, on the other hand, you are a theoretical physicist or mathematician, you will appreciate the need to discuss these issues in linguistic rather than mathematical terms. This of necessity generates a discussion in terms which are more conceptual than you are perhaps accustomed to. In the event you should prefer to examine the evidence for yourself, a detailed set of notes and original source references is available for your perusal.

Second, and perhaps more importantly, what we are attempting to do here is create a baseline of thought, based on the most current and far reaching information currently available to us, in terms of the scientific constructs which are focused on the material aspects of nature. After we have examined the empirical information related to the physical, material side of things, we will take up the other part of the discussion which deals with Descartes's 'spirit stuff'²¹².

Ultimately, our model attempts to integrate the best of empirical science with the disciplined practice of metaphysics. However, before we can grapple with consciousness-related issues, we are compelled to first deal with the task of re-examining the model of physical reality we already have. Let us begin, then, by re-examining the basics.

²¹² Descartes, R. *Principles of Philosophy*, Part I, principle 26, in *Philosophical Works*, translated by Haldane and Ross Cambridge, Mass: Harvard University Press, [1911].

Background

We have already discussed the work of the Copenhagen School in a limited context. In order to reset the meter, let's digress for a moment and re-examine what happened there. By the late 1960's, the Western scientific community realized that their model of quantum mechanics was incomplete. In what has come to be recognized as one of the more unique scientific events of the 20th century, Neils Bohr worked with a group of the world's leading physicists to reconstruct the paradigm which had been used to characterize the way the world works. It is enlightening to read the transcripts of the proceedings of the Copenhagen School. The scientists and mathematicians who participated had the great good sense to re-examine the assumptions on which their model was based in the context of a long list of observable phenomena which could not be accommodated by it.

In the end, they succeeded in crafting a wholesale restructuring of their model so that it could, indeed, explain phenomena which at the time were inconsistent with what they thought they knew. Thirty years later, we find ourselves in the same predicament.

As a result, they published what has come to be known as the Copenhagen Interpretation²¹³. Its publication was a signal event – a genuine milestone in the development of the modern theories associated with quantum physics. During the following ten years, the model they developed provided the springboard for a new world of sciences, technologies and materials such as the world had never imagined. The result of their work has been manifest in such things as lasers, fiber optics, photonics, atomically engineered carbon and a vast array of electronic devices. The modern desktop computer represents perhaps the most ubiquitous integration of the technologies resulting from their work. They changed the way the world works simply because they were willing to risk their professional reputations to develop a new way of looking beyond the limits of their understanding.

We can say without fear of contradiction that our lives have been immeasurably enriched by the courage and foresight demonstrated by those intrepid scientists who were willing to risk the censure of the mainstream scientific community by stepping out of the box. This is the essence of truly great science. It is because of such courage that we have come to appreciate the inordinate value of science, when it is practiced with courage and integrity.

Phenomenological Anomalies

Today, we find ourselves on the brink of a similar crisis of nerve. The scientific community and the model of quantum mechanics currently in general use have been shaken to their very foundations by a whole litany of newly discovered phenomena which cannot be explained or accommodated by the current laws of quantum mechanics. The list is long and getting longer.

A number of examples have been cited above, some of which are quite understandable to everyone and some of which, unfortunately, are more arcane. As you read through this list, you will find reference to some experimentally verified phenomena which can only be classified as among the most esoteric. Not to worry. As you will soon discover, there are plenty of things in this list to discuss which virtually anyone can understand. Among other things, the list includes the following:

Simultaneity - Non-local Effects at a Distance

Again, let us digress to a prior conversation to establish a context for the discussion which follows. Reference has previously been made above several times to the work of Nicolas Gisin at CERN in the late 1990's. It is

²¹³ Stapp, H. "The Copenhagen Interpretation," *American Journal of Physics* 40 1098 (1972).

important to revisit the details of his work to set the stage for our discussion about the mechanics associated with his experimental results.

Recall that in Switzerland, at the CERN Linear Accelerator Laboratories, a team of world class scientists succeeded in separating the twin particles of an electron-positron pair²¹⁴ by sending them off in two opposite directions through more than 15 kilometers of fiber optic cable. As one of the particles was exposed to an electromagnetic field which altered its spin polarity, the second particle instantaneously accommodated this alteration by modifying its own spin polarity to compensate, in the precise manner as it would have if the pair had not been separated.

After verifying this experiment a number of times, the team published a report which made the observation that the information which was shared between the two particles could not have been transmitted by light because the velocity of the information exchange occur at least nine orders of magnitude faster than the speed of light.²¹⁵ They further suggested that the information must have been conveyed by a mechanism which is not known to science or accommodated by the standard model of quantum mechanics. They have called their result '*Simultaneity – Non-local Effects at a Distance*'.

This phenomenon is the key to our considerations. This experiment was executed again in 1999 over a distance of more than 100 kilometers. In the later experiments, cesium clocks with an accuracy measured in single-digit nanoseconds (billionths of a second) were used to improve the precision of the measurements. As with the earlier experiments, the elapsed time between the alteration of the polarity of one particle was accommodated at a distance of 100 kilometers instantaneously. All nine digits of the cesium clock readout displayed a zero. This spectacular result proved one of the key predictions made by J.S. Bell in what has come to be known as Bell's Theorem.

Creating Matter From Light

In Chapter Two, we briefly examined a similarly important experimental result produced in California. In 1997, a team of more than 20 scientists on loan from a half dozen of America's top physics laboratories participated in an experiment which has world altering implications. The fact that no one saw this result posted in banner headlines on the 10:00 o'clock news should not be surprising.

At the Stanford Linear Accelerator facility in California, this team succeeded in creating electron-positron pairs, with measurable density and particle mass, by crashing two high-intensity laser beams of monochromatic light together in a vacuum. Their experiment was not an accident – they set out to do it deliberately and kept working at it for six months until they succeeded²¹⁶. Their result has since been replicated by other prestigious labs elsewhere in the world²¹⁷.

Quantum mechanics and Einstein's equations assert that it is not possible to create matter with nothing more than real photons, in any environment, under any circumstances, except as expressed by the equation $E=MC^2$. Nevertheless, the experimental result speaks for itself. The Second Postulate of the Special Theory of Relativity appears to have been invalidated by their results. Since the results of this work cannot be denied, there must be something incomplete about the way the Special Theory and quantum physics define the way the world works.

²¹⁴ The positron is the anti-matter counterpart of the electron, possessing a positive charge and opposite spin-polarity. When paired with an electron, the sum of the spin values and polarity values is always zero.

²¹⁵ Pool, R. "Score One (More) for the Spooks," *Discover*, January 1998, page 53.

²¹⁶ Tatterson, K.G. "Boom! From Light Comes Matter". *Photonics Spectra*, November 1997, page 31.

²¹⁷ The experimental results have been replicated thus far at Stanford University, The University of Rochester at Rochester, New York; Princeton University in Princeton, New Jersey, and the University of Tennessee at Knoxville.

This experiment validates a prime theorem of our new model. It proves that light is information. It is equally clear that matter is comprised of information at its primary sub-atomic structural level. In terms of the Second Postulate of the Special Theory of Relativity, this result can be expressed in terms of a modification of Einstein's famous equation:

Instead of $E=MC^2$, we propose to modify the equation to read $E=MCv \geq 0$.

Don't let this put you off. Here's how it works: E is the same function, connoting energy. So is M (mass) and C (the speed of light). What is different, however, is that instead of the speed of light being squared – that is, multiplied by itself to produce a value of almost infinite proportions, possessing 12 zeros, this formulation suggests that under some conditions E equals M as the speed of light approaches zero. This is precisely the opposite of the prediction contained in the Second Postulate of the Special Theory of Relativity. If this result can be verified in other physical phenomena, we will have no alternative but to examine the dynamics of physical reality from a fundamentally different point of view. Consider the following:

Mass At Rest = Energy

At the Institute for Problems of Materials Science in L'vov, Republic of Ukraine, Academician Trefilov, a Senior Fellow of the Russian Academy of Sciences and Vice-President of Mathematics of the Ukrainian Academy of Sciences, headed up a team which has produced a solid-state, non-chemical, carbon-lattice energy storage device called an 'energy accumulator.'

When the energy accumulator device is fully charged, it demonstrates a mass appreciably higher than when it is discharged. This result, verified by scientists at DARPA, INEEL and AMTL, is specifically prohibited by the Second Postulate of the Special Theory. The measurable mass of this solid-state device varies only with the measurable mass of electrons residing at rest in 'energy wells' defined by the crystalline lattice. In this specific instance, energy and mass are shown to be precisely equivalent when both the mass and the electrons are at rest.²¹⁸

Our formula $E=MC_{v \geq 0}$ [energy equals mass as its velocity approaches zero] has been independently verified by experimental means. $E=MC^2$ is shown to be invalidated. The scientifically validated attributes of this material suggest, among other things, that E [energy] and M [matter] become equivalent under some complementary conditions at the electron level, as the velocity of the primary sub-atomic mass approaches zero. This formula and its derivatives play a fundamental role in the architecture of our new model.

Unexplained Anomalies

In the wake of a growing list of books and articles which are critical of the current practices embraced by mainstream science, anyone who mounts an assault on the Standard Model risks being accused of science bashing. Accordingly, this author has taken the liberty of providing a list of some intriguing experimental results which call the validity of the Standard Model into question so you can begin to engage in this dialog yourself. If allowing the results provided by the methodology of science calls the model into question, we are required to allow the results to speak for themselves.

The list of phenomena which are not accommodated by the Standard Model is long and troublesome. While this list is intriguing, it is by no means exhaustive.

²¹⁸ Yurth, D. *The Anthropos Files* (unpublished report of the sciences, materials, technologies developed at the Institute For Problems of Materials Sciences, Kiev, L'vov, Chernovitsky, Republic of Ukraine, from 1951-1991).

- The seminal work of Alain Aspect demonstrated beyond question the inseparable relationship which operates at the quantum level between the conscious choices of the observer, the means of observation and that which is being observed²¹⁹. Since quantum physics absolutely excludes the role of consciousness in things material, this conundrum will require another kind of explanation.
- The equally stunning work of Dr. John Wheeler demonstrated conclusively that photons of light originating with stellar objects billions of light years distant behave, at the moment of detection, according to the conscious choice of the observer at the time, place and by the means of observation²²⁰. The most stunning implication of Wheeler's experimentally verified results is that choices made in the current moment exert a demonstrable effect on events which are believed to have occurred billions of years ago.
- The mind-matter connection and the teleological (time domain) effect demonstrated by Wheeler's work, which cannot be explained in terms of quantum mechanics, also operates in the macrocosm, in the far reaches of outer space. It is paradoxical to note that while observing the outer reaches of the macrocosm, Dr. Wheeler's results were determined by the behaviors exhibited by single photons, the smallest units of the sub-atomic realm. Unless we can find a way to accommodate this phenomenon, the Standard Model cannot explain how the known Universe operates as a self-organizing system.
- The observable phenomenon of attraction and repulsion in laser beams is clearly prohibited by the current model of quantum mechanics²²¹. This suggests, among other things, that light is probably not, as Faraday is falsely attributed to have claimed, an electromagnetic phenomenon. Unless we can explain how information is exchanged between coherent beams of monochromatic light in such a way as to demonstrate attraction and repulsion, we cannot explain how light operates as a carrier of information in the most basic sense.²²²
- The difference in neutron scatter on ortho- and para- hydrogen defies the current laws of quantum mechanics²²³. This may be a little esoteric for the non-technical reader, but if you have an interest in pursuing this anomaly, the end notes provide references to the research papers which discuss the subject. The significance of this anomaly is that it demonstrates an unpredicted behavior widely observed in certain isotopic forms of hydrogen which are unexplainable in terms of the Standard Model.
- The anomalous precession of neutrons as they are passed through a spin polarized target has been repeatedly observed and carefully documented – this behavior is prohibited by the current model.²²⁴ It is explained with elegant precision, however, in Santilli's extraordinary new work which reformulates hadronic mechanics [the mechanics of the behaviors and attributes of sub-atomic particles]²²⁵. It also

²¹⁹ Aspect, A., Dalibard, J., Roger, G. "Experimental Test of Bell's Inequalities Using Time-varying Analyzers," *Physical Review Letters* **49** 1804 (1982).

²²⁰ Wheeler, J.A., Zurek, W.H. *Quantum Theory and Measurement* ed. Princeton, N.J., Princeton University Press (1983).

²²¹ De Sabbata, V., Gasperini, M. "A Gauge-Variant Interaction Between a Charged Spinor Field and a Propagating Torsion Field," *Lett. Nuovo Cim*, vol. 30, no. 7, page 193, February 1981.

²²² Hait, J., United States Patent Number 5,093,802, March 3, 1992. "Optical Computing Method Using Interference Fringe Component Regions."

²²³ Shiposky, E. *Nuclear Physics*, Moscow, GITGL Pub., 1949, vol 1, page 523, 1959 vol 2, page 728 (in Russian).

²²⁴ Baryshevsky, V., Podgoretsky, N. "Neutron Nuclear Precession," *ZhETF*, 1964, vol 47, page 1050 (in Russian); V. Baryshevsky, "Nuclear Optics of Polarized Media," Minsk, *BUG Publications*, 1976, page 144 (in Russian).

²²⁵ Santilli, R. *The Physics of New Clean Energies and Fuels According to Hadronic Mechanics*, *Journal of New Energy* Vol. 4, No. 1, (Summer 1999) ISSN: 1086-8259. See also R.Santilli, *Ethical Probe on Einstein's Followers in the USA: An Insider's View [Il Grande Grido - A Cry in the Wilderness]*, Alpha Publishing (1984).

constitutes the basis for Dr. Shang Xian Jin's ability to harness free protons with soliton ion acceleration structures to remediate the radioactivity of spent nuclear fuels.²²⁶

- The unusual change in hydrogen interference intensity in the states described as $^2S_{1/2}$ and $^2F_{1/2}$ are also excluded by the formulas which describe quantum interaction at the quark and S-quark level.²²⁷
- The shift in circularly polarized electromagnetic waves from the plane of incidence, depending on their chiral direction and helical sign, cannot be explained and, in fact, are specifically prohibited by the Standard Model.²²⁸ This is one of the reasons the work conducted at St. Andrews University, which relies on circular entanglement in laser beams to exert 'tractor beam' effects on ultra-fine particles is significant.
- The repeated observation that gyroscope weight varies in a non-stationary [non-equilibrium] state is also unexplainable and specifically prohibited by the Einstein-Podolski-Rosen formulation of gravitational forces.²²⁹ This work demonstrates that gyroscopic spin has been demonstrated to reduce inertial mass under controlled conditions. Reduction in inertial mass means, in simple terms, that the laws of gravitational force appear to be mitigated with certain kinds of spinning bodies.
- The phenomenon described as 'dark matter' is, in this author's opinion, a demonstration of one of the most arrogant conceits of all time. It is rivaled in its obstinance only by the notion that the Earth is flat and sits at the center of the Universe. The so-called hidden mass which is supposed to exist in the cosmos, in sufficient quantity to accommodate the predictions of the current model of gravitational force, has caused no end of speculation in recent years.²³⁰

There is no such thing as dark matter. It is equally unlikely that any matter is missing from the fabric of the Universe. Rather, the fault is to be found in the Standard Model, which is incomplete and fails in a number of fundamental ways to recognize the dynamics by which the cosmos really operates as a self-organizing, open and complex system. What we are witnessing in the debate over dark matter is an irrational, utterly unscientific refusal by the scientific community to admit that the laws of gravitational force as currently formulated are incorrect and incomplete.

Surveys of the heavens failed to identify sufficient matter to satisfy the demands of the General Theory of Relativity and the Einstein-Podolski-Rosen formulations of gravitational force precisely because the formulations are in error, not because anything is missing from the heavens. In plain English, Science [big 'S'] is getting the wrong answers because it is asking the wrong questions.

²²⁶ Jin, S.X. "High-Density Charge Cluster Collective Ion Acceleration," *Journal of New Energy*, Vol. 4, No. 2, Summer 1999 ISSN: 1086-8259.

²²⁷ Sokolov, Yu. et al, "Optics of Nuclear States," I. Kurchatov *IAB* Publ., Scientific Council for Nuclear Energetic Processes and Technologies, Moscow, 1991, page 32 (in Russian); Yu. Sokolov, *Hydrogen Atom*, Eds. G.F. Bassani, M. Inguscio and T.W. Hausch. Springer-Verlag, Berlin, Heidelberg, 1989, page 16; Yu. Sokolov, B. Yakovlev, *Change of Lamb Shift in Hydrogen Atom (n=2)*, *JhETF*, 1982, vol. 83, no. 7, page 15 (in Russian).

²²⁸ Imbert, Ch. "Calculation and Experimental Proof of the Transverse Shift Produced by Total Internal Reflection of a Circularly Polarized Light Beam," *Phys. Rev. D*, 1972, vol 5, no 4, page 787 (in Russian).

²²⁹ Kozyrev N., "Causal or Non-Symmetrical Mechanics in Linear Approximation," *GAO AN SSSR* Publ., Pulkovo, 1958, (in Russian). See also N. Kozyrev, "Astronomical Observations by Means of Physical Properties of Time," in *Flair Stars*, International Symposium in Byurakan, 1976, Armenian Academy of Sciences Publ., Yerevan, 1977, page 209 (in Russian). See also H. Hayasaka, S. Takeuchi, "Anomalous Weight Reduction and a Gyroscope's Right Rotation Around the Vertical Axis of the Earth," *Phys. Rev. Lett.*, 1989, no 25, page 2701. See also S. Polyakov, O. Polyakov, "Introduction into Experimental Gravitonics," Moscow, *Prometei Publ.*, 1988 (in Russian). See also Imanishi Akira Mariyama, Midorikawa Shoichi, Moritomo Teruhisa, "Observations Against the Weight Reduction of Spinning Gyroscopes," *J. Phys. Soc. Japan*, 1991, vol 60, no 4, page 1150.

²³⁰ Naik, P.G., Pradhan, T. "Long-Range Interaction Between Spins," *J. Phys. A*, 1981, no 14, page 2795.

Of more than passing interest is the impeccably documented study cited in the Russian journal *Achievements of Physics Sciences*.²³¹ This prestigious journal reports the results of a vast survey of the heavens conducted by team of world-class scientists under the aegis of the Russian Academy of Sciences, over a period of more than ten years.

Highly sensitive gravimetric sensors were integrated with spectroscopic telescopes to provide images which verify the existence of numerous astrophysical objects, shown to be traveling through the heavens at velocities well in excess of the speed of light. As unthinkable as it might seem to conventional scientists, we have examined the data and methodology reported in the journal and find it to be compelling. The implications of the formula $E=MC^2$, that matter may never approach the speed of light, have clearly been called into question by some of the world's most capable scientists.

A Severely Crippled Physics

While the foregoing is not an exhaustive list, it demonstrates that many of the answers we are getting are flawed because the questions we are asking are both imprecise and inaccurately targeted. There is one more physical feature of the cosmos described by the Standard Model which is so important that this author decided it deserves a chapter all its own.

Time Domain Effects

When we talk about the time-domain effects exerted by the act of observation on the behavior of photons originating in deep space 12-15 billion years ago, we are really calling into question one of the primary assumptions of the Standard Model. The notion crafted into the Standard Model which deals with the phenomenon of time suggests that time is simply a convenient, arbitrarily defined attribute of the physical world which allows us to measure what happens in terms of increments of time. This is described in terms of feet per second, miles per hour, etc.

In terms of the Standard Model, time is not described as a separate dimension, with energy density and attributes of its own, which are mutually exclusive and distinct from those of the x, y and z dimensions. This fundamental error is the result of two equally powerful forces – a flawed mathematical construct and political expediency. In Section Two, this author provides a thorough analysis of this problem in the context of our discussions about the time-domain nature of the human mind.

For the purposes of the present discussion, however, the most important consideration is that the Standard Model fails to comply with the demands of complementarity by restricting the rate of information transport through physical space to the erroneously applied upper limit ascribed to the speed of light by Einstein's formulations.

A New Paradigm

At this point, we are positioned to consider some constructive alternatives. We have established that the physical attributes of the cosmos are manifestations of a universal set of simple, elegant rules which operate with uniformity at all scales. The principles of complementarity, the ever present marriage of intrinsic opposites, manifests itself at all scales and constitutes the single most important governing principle in the cosmos.

²³¹ Wask, J. et al, "Super-Luminal Resupply of Stationery Hot Spot 3G395," *Astron. J.*, 1985, vol 90, no 10, page 1989.

We have shown that the physical model in current use by scientists in the West is fundamentally flawed and essentially incomplete. We have also shown that the act of observation exerts a direct, measurable, teleological effect on matter at the primary level. We have reason to believe, however, that the human mind exerts a dramatic effect on physicality at all scales.

Perhaps as important is the demonstration that the speed of light is not the upper limit of information transport through the physical domain and that, as a corollary, matter and energy are equivalent at the primary level under some complementary circumstances. Taken together, these experimentally verified phenomena suggest something dramatic about the way the cosmos really works.

(Source: David G. Yurth's unpublished book "Seeing Past The Edge")

The Torsion Field: Information Link to Infinity

SECTION ONE

LOOKING FOR SIMPLE, ELEGANT SOLUTIONS

CHAPTER NINE

THE TORSION FIELD: INFORMATION LINK TO INFINITY

Metaphysical Considerations

There is another class of phenomena which, although equally well documented, is simply not allowed to impinge on the serious considerations of modern quantum physics. We refer to these phenomena collectively as metaphysics. This is the 'stuff' Descartes left out. We are all familiar with the controversial list which follows: the extensive studies which document the existence of such phenomena as extra-sensory perception, remote viewing, pre-cognition, telekinesis and the interaction of human consciousness with plants, other biological organisms and manmade machines.

Dr. Dean Radin of the University of Nevada at Las Vegas has published the results of a lifetime of investigation on this subject in his thoroughly documented book *The Conscious Universe*.²³² If you have any doubts about whether the metaphysical phenomena just listed are documented with sufficient attention to satisfy today's demands for public verification and experimental repeatability, this author suggests you read his book. There is simply no room left for any reasonable person to argue the existence or scientific validity of these phenomena.

Moreover, the life's work of Annie Besant and C. W. Leadbeater, as recorded in the carefully documented book *Extra-Sensory Perception of Quarks*²³³, prepared by the eminent physicist Steven M. Phillips, demonstrates the value and legitimate role of a disciplined attempt to integrate the disciplined and impeccably documented practice of metaphysics with the best of empirical science. Between 1895 and 1933, these two gifted and highly disciplined practitioners honed their metaphysical skills under the tutelage of the legendary mystic J. Krishnamurti.

Chapter Nine

²³² Radin, D. *The Conscious Universe*, (1997) HarperCollins, San Francisco.

²³³ Phillips, S.M. *Extra-Sensory Perception of Quarks*, The Theosophical Publishing House, Wheaton, Illinois, USA 1980. ISBN 0-8356-0227-3.

They devoted their lives to exploring the quantum world using nothing more than their own psychic powers of observation and, in the process, kept an impeccably documented journal. Until 1980, the results of their work were simply ignored by quantum physicists. But when Murray Gell-Mann announced the discovery of the quark and mapped the structure and behavior of this family of sub-atomic particles, researchers were absolutely shocked to discover that Besant and Leadbeater had produced nearly identical drawings more than 60 years earlier, without the aid of a linear accelerator or a computer. Dr. Phillips' book makes fascinating reading and leads us to our next consideration.

The Conscious Universe

Menas Kafatos and Robert Nadeau have developed what is perhaps the most cogent and articulate philosophical work to date in support of the thesis that the Universe and all its phenomena arise from a universal causal field which they refer to as 'consciousness'.²³⁴ In their watershed book, also entitled *The Conscious Universe*, they succeed in providing one of the principle philosophical underpinnings from which our proposed approach to a new theory of unified fields arises. They succeeded in establishing a firm basis for two pieces of the cosmological puzzle which are central to our considerations.

First, they establish that the Universe is an open, complex, quantum system, operating at all scales according to the dynamic forces which we have observed in both the microcosm and macrocosm.

Second, they establish that when all phenomena in the Universe are viewed as manifestations of information, the attributes of consciousness become intrinsic to and inseparable from any model we can construct to describe how the world operates.

Mind-Matter Connection

Finally, in case there is any question that consciousness is inseparable from the most fundamental aspects of the world we live in, this author highly recommends a stroll through the wonderful book *The Secret Life of Plants*, written more than twenty years ago by imminent researchers Peter Tompkins and Christopher Bird.²³⁵ It provides a fascinating account of the physical, emotional and spiritual relations which operate between plants and humans. In this simple paperback book is chronicled the impeccable work of Sir Jagadis Chandra Bose, whose demonstrations of the effect of human consciousness on plants are legendary. Bose's work covered a period of more than 40 years and was so unequivocal in its publicly demonstrable results that he was knighted and given his own university.

Baxter's effective utilization of plants as reliable detectors of truth in the criminal justice system is described there, as is the work of Marcel Vogel, whose explorations of the relations between liquid crystals and human consciousness has still not been fully appreciated. Pierre Paul Sauvin created an anxiety response device which interfaced plants with electronic sensors more than 100 times more sensitive than the best lie detector devices.

Perhaps most astonishing is the compelling work of Dr. Ken Hashimoto, Chief of Research and Development at Fuji Electronics Industries. His book, *Introduction to ESP*, now in its 60th printing, established the basis under which plants have become regularly used as truth detectors in the Japanese criminal court system. His second book, *Mysteries of the 4th Dimensional World*, now in its 80th printing, provides a voluminous catalog

²³⁴ Kafatos M., Nadeau, R. *The Conscious Universe; Part and Whole in Modern Physical Theory*, Springer-Verlag New York, Inc., 1990.

²³⁵ Tompkins, P. Bird, C. *The Secret Life of Plants*, Avon Books 1990, 1973

of carefully documented, often publicly repeated experimental results, which demonstrate that nothing in this physical world operates without being effected at a fundamental level by consciousness.²³⁶

The Problem

The Standard Model specifically prohibits the following scientifically verified findings:

- *Super-luminal velocities* – It is generally held that no velocity can exceed the speed of light;
- *Metaphysical phenomena* – Any connection between consciousness and the operational dynamics of the material world is not allowed; and
- *The 5th primary field* – The formulations describing the four primary fields (gravitational force, electromagnetics, strong and weak nuclear forces) are mutually exclusive and fundamentally distinct. It is generally held that if Michelson and Morley couldn't find the 5th field they called the 'Aether,' it simply doesn't exist.²³⁷ In this case, the Standard Model prohibits complementarity.

This is the crux of the current dilemma. We are confronted today by a growing list of undeniable and inexplicable phenomena which cannot be accommodated by the Standard Model of quantum mechanics. The psychological and cultural barriers which lie between us and the development of a new model are the same ones confronted by Galileo, Copernicus and the Copenhagen School. Our alternatives are precisely the same as theirs – we have no choice but to attack this newly discovered set of problems from another point of view. We have to have courage and step out of the box, risk the censure of our peers and take the next giant leap.

Torsion Field Phenomena

The new model proposes a new cosmology which accommodates many of the phenomena we observe and cannot explain. It also provides the framework for conducting our investigations well beyond the limits of current understanding. Here is how we think it works:

At the end of the 19th century, Michelson and Morley began looking for the mysterious energy source they called 'field energy'. They searched for seventeen years without success. Because of the restrictions imposed on them by their experimental methods and the technologies which were then available to them, they failed to identify the fifth field or confirm its existence until nearly twenty years later.²³⁸ They called it the 'aether.'

Over the past 150 years, scientists from all over the world have been looking for evidence of its existence. They have given it all sorts of interesting names, including pseudo-magnetism; the 5th force; Tesla called it the 'empty wave'; T. Henry Moray called it radiation energy; and Fienberg referred to it as the 'tachyon field' – Star Trek picked this one up because it sounded so good. A more current appellation is the 'torsion field'. There are more than 50 other names which have been used to define the fabric of spaces, including the fundamental silliness proposed by super string theory which refers to it as 'quantum foam.'

²³⁶ Dr. Hashimoto's books were printed in Japan in Japanese and are currently out of print. However, copies can be acquired by contacting <http://www.iuniverse.com/>. Additional information can be obtained from the Library of Congress, either by direct correspondence or online.

²³⁷ Turner, D., Hazelett, R. *The Einstein Myth and the Ives Papers – A Counter-Revolution in Physics*, The Devon-Adair Company, Publ., Old Greenwich, Conn., USA, 1979. ISBN 0-8159-5823-4 (Foreword by President Harry S. Truman).

²³⁸ Michelson A.A., Gale, H.G. "The Effect of the Earth's Rotation on the Velocity of Light," *Nature*, no 115, page 566 (1925). See also A.A. Michelson, "The Effect of the Earth's Rotation on the Velocity of Light, Part I," *The Astrophysical Journal*, no 61, pages 137-139. See also A.A. Michelson and H.G. Gale, "The Effect of the Earth's Rotation on the Velocity of Light, Part II," *The Astrophysical Journal*, no 61, pages 140-145 (1925).

The fact that so many excellent scientists have attempted to name the field by describing it as a function of some of its observable attributes simply demonstrates that a sufficiently robust model has not yet been developed to accommodate the many interesting attributes which have been ascribed to it over the years. What is true about this field, which is generally referred to in current literature as the torsion field, is the following:

More than 4,000 papers have been published by more than 150 teams of scientists over the past one hundred twenty years, describing what it is, what functions it performs, how it works and where it is to be found.²³⁹

State-of-the-art devices which have been created to operate in this field are becoming more prolific and sophisticated every day. Today, anyone can buy a 5th field generator from any of four sources in the former Soviet republics. Their devices have been constructed, operated, tested, documented and patented. They propagate information into and retrieve information out of the torsion field.²⁴⁰

The theoretical structure and functional dynamics of the physical vacuum and the role of the torsion field are becoming clearer every day. References are provided in the appendixes to more than 250 different papers, journals and books which describe many of the interesting features of the physical vacuum and the torsion field, including the research conducted by teams of scientists all over the world.

A New Approach

The new approach to constructing a unified theory is not exotic in the least. Collectively, let us do what the Copenhagen School did – let's look at the current model with a different set of glasses for a moment. We propose that a unified medium – which we refer to as a matter of convenience as the 'physical vacuum' – exists in a variety of different phase polarization states. In the state of charge polarization, the medium manifests an electromagnetic field. In the state of longitudinal polarization, the medium manifests a gravitational field. In the state of transverse spin polarization, the same medium functions as a torsion field. The electromagnetic, gravitational, strong and weak nuclear forces, and torsion fields all correspond to polarization spin states of the physical vacuum. Please consider the following:

It is proposed that the weak and strong nuclear forces, electromagnetic fields and the gravitational field are not separate and distinct phenomena at all. Rather, they all arise from the same original causal plane and arise as distinct expressions of a single field, which E.T. Whittaker described as 'scalar potentials'.²⁴¹ This is problematical because the Standard Model accommodates four fields which are considered to be primary. Whittaker's formulations demonstrate, however, that the four primary fields are purely derivative and non-exclusionary.

As Akimov suggests, for a wide range of situations, it is useful to interpret all five of the primary fields as derivative polarized expressions arising from the primary scalar potentials. While it may be true that the spin polarization states S_L and S_R [spin left and spin right] contradict a rule of quantum mechanics referred to as the Pauli Prohibition²⁴², we beg the question by suggesting that under quantum mechanical conditions, the

²³⁹ Akimov, Shipov et al, "Torsion Fields And Their Experimental Manifestations," *J. New Energy*, vol 2, no 2, 1997.

²⁴⁰ Akimov, A.E., Shipov, G.I. "Torsion Fields And Their Experimental Manifestations," *J. New Energy*, vol 2, no 2, 1997. See also V. Bunin, "Latest Problems of Gravitation in the Light of Classical Physics," abstracts of papers of the 4th Astrogeological Workshop of the Geographical Society under the USSR Academy of Sciences, Leningrad, 1962, page 88 (in Russian). See also, V. Bunin, "Unified Gravitational Equations of Mathematical Physics," author's abstract of MIOP section, 1965, vol 1, no 4 (in Russian). See also V. Dubrovsky, "Elastic Model of Physical Vacuum," *DAN USSR*, vol 282, no 1, 1985 (in Russian).

²⁴¹ Whittaker, E.T. "On An Expression of the Electromagnetic Field Due to Electrons by Means of Two Scalar Potential Functions," *Mathematics Annual*, vol. 1, no. 8, page 333-335, 1903.

²⁴² Wheeler, J.A. *Einstein's Vision*, Springer-Verlag, 1968, page 112. See also A. Dolgov, Yu. Zel'dovich, M. Sazhin, *Cosmology of the Early Universe*, *MGU Publ.*, Moscow 1988, page 200 (in Russian). See also M. Lavrent'ev et al, *On Remote Action of*

fundamental laws of quantum physics operate in ways we do not yet really understand²⁴³. If it were not so, Murray Gell-Mann would not have been awarded a Nobel Prize for the discovery and description of quarks, which also violate the Pauli Exclusion Principle.

The fact that the mathematical structure Gell-Mann ascribed to the operational states of quarks violates the Einstein-Podolski-Rosen formulations of gravitational effect, coupled with the fact that his mathematical model prohibited the existence of any smaller class of sub-atomic particles, does not speak well of the adequacy of the Standard Model. Just last year, for example, Gell-Mann's former colleagues at Fermi Laboratories announced the discovery of sub-quarks²⁴⁴, the constituent pairs of sub-atomic particles which are now known to comprise all six quark particles. Presumably, these structures also violate the Pauli Exclusion Principle. The concept of a physical vacuum and the operation of five primary fields as expressions of a single field cannot reasonably be excluded unless the discovery of quarks and sub-quarks is also excluded.²⁴⁵

Torsion Field Attributes

- A sizable list of attributes has been experimentally identified which demonstrates that the torsion field operates holographically, without regard to time and distance. Its operations are characterized by a variety of behaviors which have been described conceptually, experimentally and mathematically as functions of spin polarity, angular momentum and weighted waveform vector velocities.
- In August 1999, Dr. Myron Evans, Dr. Lawrence Crowell and a team of sixteen other physicists, engineers and mathematicians published the first reformulation of Maxwell's field equations in over a hundred years²⁴⁶. Contained in their extraordinary work are reformulations of the entire family of formulas which have been developed over the past 100 years to describe the attributes, functions and dynamics which characterize electromagnetic fields. Their seminal work demonstrates that the functions and attributes of the five primary fields, including those of the torsion field, can be expressed in terms of parallel geometricized equations²⁴⁷.
- A careful analysis of the basic formulas developed by Akimov²⁴⁸, Schwartz²⁴⁹, Anastasovski²⁵⁰, Trefilov²⁵¹, Reed²⁵², Santilli²⁵³ and others, is extremely revealing – the most stunning thing about them is the discovery that the characteristics of all four primary fields and the 5th field [which we have called the torsion field] appear to be completely accommodated by the set of functions which comprise spin polarity in linear, longitudinal and transverse wave functions, and angular momentum at both the

Stars on Resistor, *Doklady AN SSSR*, 1990, vol 314, no 2, page 352 (in Russian). See also A. Pugach, A. Akimov, "Astronomical Observations by N. Kozyrev's Methodology: Preliminary Results," in the press (in Russian)

²⁴³ Santilli, R. *Il Grande Grido*: A Cry in the Wilderness loc.cit.

²⁴⁴ "Inclusive Jet Cross Section in $p\bar{p}$ Collisions at $\sqrt{s} = 1.8\text{TeV}$," F. Abe et al., The CDF Collaboration, FERMILAB-PUB-96/020-E. Submitted to *Phys. Rev. Lett.* January 24, 1996 -- Abstract, Paper

²⁴⁵ R. Santilli, loc. cit.

²⁴⁶ **The New Maxwell Electrodynamics Equations: New Tools for New Technologies**. A Collection of 60 papers from the Alpha Foundation's Institute for Advanced Study. *Journal of New Energy*, Winter (1999) ISSN: 1086-8259

²⁴⁷ L.B. Crowell, "Quantum Electrodynamics of NonAbelian Electrodynamics in a Cavity," *Journal of New Energy*, Volume 4 No.2, page 70-81, (Summer 1999).

²⁴⁸ Akimov, A.E., Finogenov, V. "P Experimentainiya Proyavleniya Torsionnykh Polei i Torsionnye Tekhnologii" ("Experimental Manifestations of Torsion Fields and Torsion-Based Techniques"), Moscow: *NTTs "Informatehnika,"* 1996, 68 pages, published by Sci-Tech Center "Informatehnika."(in Russian).

²⁴⁹ Swartz, M.R. "Generality of Optimal Operating Point Behavior in Low Energy Nuclear Systems," *Journal of New Energy*, Vol. 4, No. 2, pp. 218-229.

²⁵⁰ Anastasovski, P.K., Benson, T.M. **Quantum Mass Theory Compatible With Quantum Field Theory**, Nova Science Publishers, Inc. (1995) ISBN: 1.56072-157-X.

²⁵¹ Trefilov, A. etal I.N. Frantsevich Institute for Problems of Materials Science, Anthropol File ref/

²⁵² Reed, D. "Torsion Field Research and Implications for New Physics and Energy Technologies," *Journal of New Energy*, Vol. 4, No. 2, pp 151-164 (Summer 1999).

²⁵³ Santilli, R., *Il Grande Grido*, loc.cit.

quantum and macrocosmic level. While there is still much work to be done here, it seems more than coincidental that these attributes are precisely what cause the torsion field to operate as it does. The formulas referred to include Einstein's equations, the Young-Mills equations and Geisenberg's equations.²⁵⁴

- It has been shown that information is conveyed via the torsion field at a rate which is at least 10^9 times faster than the speed of light. This revelation, which is largely due to the ground breaking work of Russian scientist V.A. Dubrovsky up to 1985, has now been confirmed by at least six other laboratories in the former Soviet republics,²⁵⁵ by Prof. Dr. Guenter Nimtz and his colleagues at Cologne University²⁵⁶, and Lijun Wang, Alexander Kuzmich and Arthur Dogariu of the NEC Institute²⁵⁷. The group velocity of torsion waves has also independently been shown to be at least 10^9 times the speed of light.²⁵⁸
- The litmus test regarding this issue is found in the recent award by NASA of a contract to develop a torsion field communications system. The award was announced on August 19, 1999, under the title, **NASA Glenn Announces Breakthrough Propulsion Physics Selections.**²⁵⁹
- A practical set of experiments which reveal just how important this concept is has been conducted both in the United States and in the former Soviet republics. In the United States, Bill Ramsay²⁶⁰ has

²⁵⁴ Akimov, A.E., "An Heuristic Discussion of an Issue of a Discovery of New Long Distance Interactions," *EGS-Concepts. MNTEC VENT*, pre-print N7A, page 63 (in Russian); Akimov, Shipov, "Torsion Fields And Their Experimental Manifestations," *Journal of New Energy*, Vol. 2, No. 2, page 68, Summer 1997.

²⁵⁵ Dubrovsky, V. "Elastic Model of a Physical Vacuum," *DAN USSR*, vol 282, no 1, 1985 (in Russian).

²⁵⁶ Nimtz, G. **Superluminal Signal Velocity**, *Annalen der Physik* 7, 618 (1998); see also G. Nimtz, W. Heitmann, **Superluminal Photonic Tunneling and Quantum Electronics**, *Progress in Quantum Electronics*, vol. 21, 81 (1997); see also, A. Enders, G. Nimtz, "Photonic Tunneling Experiments," *Physics Review*, B 47, 9605 (1993) regular paper; see also, A. Enders, G. Nimtz, **On Superluminal barrier Transversal**, *Journal of Physics (France)*, vol. 2, at pp. 1693 (1992); see also, G. Nimtz, A. Enders, H. Spieker, **Photonic Tunneling Experiments: Superluminal Tunneling**, Trani Workshop, 24-30 September 1992, *Waves and Particles in Light and Matter*. A.v.d. Merwe and A. Garuccio (eds.), Plenum Press, NY (1994).

²⁵⁷ Associated Press, Light Can Break Its Own Speed Limit..., July 20, 2000.

²⁵⁸ Bunin, V.A. "Newest Issues of Gravitation in the Light of Classical Physics," *Proceedings 4th Astro-Geological Meeting Geographical Society of AS USSR*, L. 1962, page 88 (in Russian). See also V.A. Bunin, "Unitary Electra-Gravitation Equations of Mathematical Physics," *Auto-repherates of speeches in the section entitled MOIP*, 1965, no 1, p 4 (in Russian).

²⁵⁹ Quantum Fields, LLC – Press Releases. Current NASA news is found at <http://www.grc.nasa.gov/Doc/news.htm>. On August 19, Quantum Fields, LLC, received word from NASA that their proposal submitted to the breakthrough propulsion physics program was selected for funding. A copy of the press release follows, along with a link to a summary of the proposal.

(2) Jordan Maclay Quantum Fields, LLC [Richland Center, WI] and MEMS Optical, Inc. (Huntsville, AL) proposed an experimental and theoretical study of quantum vacuum energy. The experiments will use micro-electromechanical devices to test force and energy effects by quantum electrodynamics.

FEASIBILITY OF COMMUNICATION USING QUANTUM CORRELATIONS

For all space missions, it is imperative to have reliable communication links to transmit data, computer codes, or other information. The current electromagnetic communications technologies (including laser, RF, X band, S. band) do not scale well as the mission distance increases. With current methods, the power, weight, cost and complexity increase rapidly with distance, while the transmission reliability decreases. We propose to explore the possibility of a revolutionary approach to communications based on recent theoretical and experimental developments in quantum physics, in particular based on quantum correlations between entangled atoms or ions (EPR pairs). Recent experiments have verified the existence of quantum correlations between entangled atoms (???) photons, in which the polarization measurement of one photon is always correlated with the measured polarization of another, distant photon (*this is a specific reference to the work of Nicolas Gisin and his team at CERN, Geneva*). Theory indicates it is not possible to use standard quantum mechanical measurements on entangled systems, such as polarization correlations of photons, for communications. Current theory restricts but may not deny the possibility of using quantum mechanical correlations in small movements or adiabatic perturbations of entangled atoms as a communication means. Further, if non-linear modifications to quantum mechanics suggested by Nobel Laureate S. Weinberg are present, then EPR communications is clearly allowed. If experiment verified that the use of EPR pairs was viable, it should be possible to develop an almost ideal communications system, a compact, low-weight, communication architecture in which no broadcast power or antenna is required, no environmental noise is present, the signal does not fall off as the inverse square of the distance, and high data rates with complete security are possible. The purpose of this effort is to investigate the possibility of using quantum correlations in the adiabatic movements of atoms as a means of communication, to perform an initial theoretical feasibility analysis, identifying the key issues with such an approach, and to propose an experiment to resolve some of the fundamental questions.

described an experiment in which Greg Hodowanec was able to record the occurrence of a solar flare more than eight and a half minutes before it was confirmed by NOAA, when the photons and particles liberated by the event entered the earth's atmosphere. He was also able to measure the magnitude of the event, as it occurred²⁶¹.

- Nick Anthony Fiorenza and Alistair Couper have both reported on the use of gravimetric devices to record the actual transit locations of the planet Pluto, orders of magnitude faster than was possible using measurements based on conventional light-wave sensing devices.²⁶² The devices used by Fiorenza and Couper have been employed by Russian astronomers to determine the precise real-time locations of stellar formations and planets²⁶³. The results of their work bears heavily on the assumption that information contained in any single location in the cosmos can be instantaneously obtained at any other remote location, regardless of the extent to which events are separated by time, space or distance. This assumes the means of observation are engineered to comport with torsion field dynamics rather than relying on the data transfer rates associated with radio frequency emissions [light].
- We have reason to believe, based on the ground breaking work of V.A. Ablekov, David Bohm and Karl Pribram²⁶⁴, that the torsion field is holographic. The combination of the features identified by their research suggests that the phenomena associated with Bohm's Implicate Order and Pribram's holographic model of human consciousness, which are otherwise inexplicable, can now be accommodated.
- Unlike electromagnetism, where analogous charges repel and opposite charges attract, in torsion fields similar charges attract and opposite charges repulse.²⁶⁵
- As a torsion field is generated by the classical spin of a magnetic plate, we can observe and measure the precise effects of the alteration of spin state of the object or system which is encompassed by it. At the Institute for Problems of Materials Science in Kiev, scientists have for more than 25 years used torsion field generators as an essential component of the apparatus used to manufacture exceedingly exotic materials, for which we have no comparable products in the West. These include mono-molecular powdered metals, solid-state energy accumulators and certain varieties of atomically engineered carbon.²⁶⁶
- Torsion field emissions are non-dissipative and are not attenuated by the interposition of mass or the effects of distance. Torsion fields cannot be screened by any known materials except aluminum, nor any known combination of materials or fields.²⁶⁷ The results of the 1986 Moscow M2 torsion wave communications experiments have been widely distributed. In this demonstration, a directional torsion field was modulated with a simple variation of the Morse code. The signal was instantaneously received at a point more than 22 kilometers distant, using a similar low-power gravimetric signal detection device. The signal was passed through steel reinforced concrete more than 50 meters thick,

²⁶⁰ Ramsay, B. "Generic Gravity Wave/ Scalar Detector," *Journal of New Energy*, Proceedings of the 5th INE Symposium, Vol.4, No. 2, Summer 1999, pp 148-150.

²⁶¹ Hodowanec, G. *Hodowanec's Rhysmonic Cosmology*, a collection of notes, papers and articles authored by G. Hodowanec, reflecting some of the theoretical and experimental findings, as well as the 1985 monograph *Rhysmonic Cosmology*. Available c/o B. Ramsay Publisher, 563 29 ¼ Road #3, Grand Junction, Colo, 81504, (970)241-5863. See also Bill Ramsay, "Fixed Rate Scanning, Enigma or Research Tool?", unpublished paper August 1997. See also, Bill Ramsay, "Exploring the Aethers: Adventures Inspired by Hodowanec's Discoveries," *Proceedings of the International Symposium on New Energy*, Denver, Colorado, May 12-15, 1994

²⁶² Fiorenza, Nick Anthony "Gravitational Wave and Planetary Correspondence," Argo Navis, Inc., 288 Bluff St. Suite 474, Boulder, Colorado, 80301, 1994. See also Alastair, "Measuring Gravity," 181 Star Route, Hana, Hawaii, 96713. See also aquarius@t-link.net.

²⁶³ Matveyenko, L.I. "Visible Superlight Speeds of Components Scattering Extra-Galactic Objects," *UPhN*, 1989, vol. 140, no. 3, p 469 (in Russian).

²⁶⁴ Hameroff, S. et al, "Tubulin Dimers" ref/

²⁶⁵ Akimov, Shipov et al, "Torsion Fields And Their Experimental Manifestations," *J. New Energy*, vol 2, no 2, page 72, 1997.

²⁶⁶ Yurth, D. *The Anthropos Files* loc.cit.

²⁶⁷ Akimov, Shipov et al, "Torsion Fields And Their Experimental Manifestations," *J. New Energy*, vol 2, no 2, page 74, 1997.

after having been propagated through a mountain more than 10 kilometers wide. Variations of this experiment have apparently been successfully performed in a number of other locations in the former Soviet republics since that time²⁶⁸.

- The absence of loss of signal strength, referred as attenuation, during the spread of a torsion wave group, suggests that long-distance communication may one day be possible with the use of very low transmission power and unlimited bandwidth. The fact that torsion waves are not attenuated [weakened] by any known material substances or fields suggests that we may one day be able to devise systems which are capable of communicating through water or any density of physical material²⁶⁹. This concept also suggests that we should be able to devise communications systems capable of supporting real-time communication without regard to the vast distances of space.
- Since all known substances possess a non-zero collective spin state [this means, in simple terms, that everything is always in motion at all scales], then all substances must also create and exist within their own localized torsion fields. The expanse and frequency structure of any substance is determined by its chemical composition and the expanse structure of its molecules or crystalline lattice. A clear understanding of these mechanics will enable us to commercialize energy storage devices which have energy conversion characteristics well in excess of gasoline [650 watt hours/kg].²⁷⁰
- At the I. N. Frantsevich Institute for Problems of Materials Science located in Kiev, Republic of Ukraine, a scientific team led by Academicians Trefilov, Tovschuk and Kovalyuk created a solid-state energy cell which produces 850-1040 watt hours/kg, in laboratory prototypes. This is at least 35-50 times the energy density of any known conventional energy storage devices developed in the West. The reliability of their claims regarding this technology has been verified by INEEL, DARPA and the AMTL. A key element of their crystalline lattice deposition method relies on the effects of a torsion field beam.²⁷¹ Scientists working at Sandia Laboratories in Los Alamos, New Mexico, have reported the successful development of a thin-film solid state energy storage device which reportedly demonstrates energy density in the range of 250-400 watt hours/kilogram.
- It has been shown that torsion fields demonstrate persistence. This attribute is referred to in the literature as a "residual field effect."²⁷² A torsion source of a defined expanse and frequency has been consistently shown to polarize the localized region of the physical vacuum. Once the energizing space-spin source has been put in motion and a torsion field created, and then removed to another place, the space which surrounded the torsion field generator will continue to exhibit the effects of the torsion field for as long as several hours.
- If we can delineate the dynamics which cause the persistence of residual field effects, we will be able to explain and harness the functional features attributed to dowsing, magnetically effected molecules of water and so on.²⁷³ A clear and present example of the applications made possible by this information is illustrated by the work of a team of physicians from the CIS. Using the work of V. Kronin as the

²⁶⁸ Akimov, A.E. "Torsion Communications of the Third Millennium," Papers of the International Conference "Modern Telecommunication Technologies," Moscow, May 1995 (Russian). See also A. E. Akimov, G.I. Shipov, "Torsion Fields and Their Experimental Manifestations," *Journal of New Energy*, Vol.2No2. 1997 @ page 78.

²⁶⁹ Akimov, Shipov et al, "Torsion Fields And Their Experimental Manifestations," *J. New Energy*, vol 2, no 2, page 72, 1997.G.

²⁷⁰ Convegno Internazionale: "Quale Fisca per 2000?" Bologna, 1991. See also D. Yurth, *Anthropos Files*, ibid.

²⁷¹ D. Yurth, *The Anthropos Files*, loc. cit. IPMS has also perfected the use of a specially modulated torsion field device to manufacture mono-molecular powders of strategic metals. Using this revolutionary manufacturing method, metals can be stored in conventional glass containers without involuntarily generating static electricity.

²⁷² Akimov, A.E., Binghi, V. "Homeopathy, Quantum Physics and Torsion Fields," *Proceedings of the Congress of the International Homeopathic Association*, Kiev, Sept. 25-29, 1991, page 143 (in Russian). See also V. Binghi, "Induction of Metastable States of Water within the Framework of Torsion Field Concepts," *CISE VENT*, 1991, preprint no 3, page 35. (in Russian).

²⁷³ Harvalik, Z.V. *The American Dowser*, 1973, vol 13, no 3, page 85, 87. See also D. Chadwic, L. Jensen, Utah Water Research Lab., College of Engineering, Utah State Univ., Logan, 1971, page 120. See also S.W. Tromp, "Experiments on the Possible Relationship Between Soil Resisting and Dowsing Zones," *Oegatgeest*, 1956.

basis for their treatment modality, a team of Russian physicians has been working at the laboratories of the Centers For Disease Control in Atlanta, Georgia, and Baylor University Medical Research Center in Houston, Texas, for more than a year. Their project demonstrates a revolutionary new medical treatment modality which capitalizes on this attribute of torsion field mechanics, to fundamentally cure patients infected with the hepatitis C virus.²⁷⁴

- Teams of scientists from more than 50 laboratories have shown that it is now feasible to deliberately perform a wide variety of carefully calibrated functions using torsion field devices.²⁷⁵ We can build torsion field generators of both static and radiating types.²⁷⁶ We can select, adjust and fine-tune frequencies modulated into the field with a high degree of precision.²⁷⁷ We can modulate into and retrieve data out of a torsion field, including via two dimensional spin matrices.²⁷⁸ We can operate efficiently in a variety of different modes of signal radiation.²⁷⁹ We can adjust and smooth the intensity of the S-waves, and we can operate in both left and right S-wave chiral helicities.²⁸⁰
- Torsion fields can be detected, generated and switched on and off (such as in communications applications).²⁸¹ We have demonstrated that torsion fields can be designed to interact with laser beams²⁸², to modulate light frequencies and perform other functions. Torsion fields have been demonstrated to have a specific effect on biological processes²⁸³ and have been shown to be generated by certain melting and solidifying materials.²⁸⁴ Torsion fields affect the oscillation of quartz crystals²⁸⁵,

²⁷⁴ The frequency signature of the hepatitis-C virus was mapped using infra-red spectrometry, a specially designed scalar interferometer and MRI technologies. The complex waveform which is mutually exclusive to the Hep-C virus was then fed into a desktop computer and converted to a waveform which was its phase conjugated opposite. The resulting waveform information was then fed to a torsion field generator which was used to irradiate a .5% molal solution of NaCl (Ringer's) for a period of 30 minutes. The ionic salt solution emitted a phase conjugated signal when fed into the patient's system. The solution was infiltrated into the vascular system of 15 patients diagnosed with advanced cases of hepatitis-C. After 30 days of three-times-per-week treatment, 14 of the 15 patients were diagnosed as being completely free of any sign of infection. The 15th patient died during treatment from complications arising from an extremely advanced, chronic case of the disease. The technology is now being tested under double blind protocols by Dr. Robert Pennington and virologists at the Baylor University Medical Center.

²⁷⁵ Sciamia, D.W. "The Physical Structure of General Relativity," *Rev. Mod. Phys.*, 1964, no 36, page 463. See also D. Ivanenko, P. Pronin, G. Sardanashvilli, *Calibrating Gravitation Theory*, *BGU Publ.*, Moscow, 1985, page 143 (in Russian). See also Ya Zeldovich, "Interpretation of Electrodynamics as Consequences of Quantum Theory," *Pisma v. SHETF.*, 1967, vol6 no 10, page 922 (in Russian). See also A. Sakharov, *Vacuum Quantum Fluctuation in Curved Space and the Gravitation Theory*, *DAN*, 1967, no 1, page 70 (in Russian). See also V. Bellin et al, "On Quantum Gravitation Effects in Isotrope Universe," *ZhETF*, vol 6, 1980, page 2082 (in Russian).

²⁷⁶ Akimov, A.E., Finogenov, V.P. "*Experimentainiya Proyavleniya Torsionnykh Polei i Torsionnye Tekhnologii*" (Experimental Manifestations of Torsion Fields and Torsion-Based Techniques), Moscow: *NTTs* "Informatekhnik," 1996, 68 pages, published by Sci-Tech Center "Informatekhnik." (in Russian).

²⁷⁷ *ibid.*

²⁷⁸ *ibid.*

²⁷⁹ Ivanenko, D., Pronin, P., Sardanashvilli, G. "*Calibrating Gravitation Theory*," *BGU Publ.*, Moscow, 1985, page 143 (in Russian).

²⁸⁰ *ibid.*

²⁸¹ Fox, H., Ramsay, B. "The Super-Luminal Velocity of Gravity Waves," Trenergy, Inc., Salt Lake City, Utah, 1998, 4 pages with references.

²⁸² Obukov, Yu., Pronin, P., Yakushin, I. "On the Experimental Estimations of the Axial Torsion Mass and Coupling Constants," in the press (in Russian). See also Ch. Imbert, "Calculation and Experimental Proof of the Transverse Shift Induced by a Total Internal Reflection of a Circularly Polarized Light Beam," *Phys. Rev. D*, 1972, vol 5, no 4, page 787 (in Russian). See also "Phantom DNA Effect" as defined by V. Poponin, *loc.cit.*

²⁸³ Zhvirblis, V.E. "Playing Bublik," *Chemistry and Life*, no 5, 1995, pages 10-15. See also V.A. Sokolova, "Investigation of the Plant's Response to the Action of Torsion Radiation," preprint no 48, Moscow: *VENT*, 1994, 32 pages. See also V.F. Panov, B.V. Testov, A.V. Klyuev, T.D. Afonina, "Effect of Torsion Radiation on Mammals Organism," in: *Reports Theses, PERM State Medical Academy, Scientific Session of 1997*, PERM, (Russia), thesis no 159. See also [28]

²⁸⁴ Kichigin, V.I., Klyuev, A.V., Kurapov, S.A., Panov, V.F., Khaldeev, G.V., Borisova, T.F. "Torsion Fields and Electrochemical Processes at Metal-Electrolyte Interface," *Journal of New Energy*, vol 1, no 2, 1996, pages 27-31. See also V.P. Mayboroda, A.E. Akimov, G.A. Maximova, V.Y. Tarasenko, V.K. Shkholniy, "Influence of the Torsion Fields in Tin Melt," *MNTP, VENT*, preprint no 49, Moscow: 1994, 13 pages (in Russian). See also V.P. Mayboroda, A.E. Akimov, G.A. Maximova, V.Y. Tarasenko, V.K. Shkholniy, N.G. Palaguta, G.M. Moltchanovskaya, "Structure and Properties of Copper Inherited From a Melt After Applying to it a Torsion Emission," *MNTP, VENT*, pre-print no 50, Moscow: 1994, 11 pages (in Russian).

affect the functional characteristics of some electronic components²⁸⁶, and have been shown to have verifiable, measurable and predictable effects on gravity.²⁸⁷

- In practical fact, we can point to a long list of applications which could benefit from carefully planned applications engineering which recognizes the properties of torsion fields and harnesses them for practical purposes. Among these are revolutionary new propulsion systems, communications devices, long range sensors, astrophysical monitoring and metering devices, geo-physical devices which can be calibrated to locate mineral deposits, water and subterranean structures; photographic applications which are capable of imaging the interior of virtually any substance or structure without X-rays; dental imagers; and so on.

Practical Applications

A consortium of technology developers and their partners around the world have embarked on an interesting development project. The project attempts to integrate the features of a newly designed torsion field pump with the information distribution properties discovered by Dr. John Hait.²⁸⁸ In his patented applications of the photonic transistor, Dr. Hait has established that a special class of monochromatic lasers which emit polarized, coherent light with standing wave forms, can be used to switch other laser beams with similar wave forms ‘on’ and ‘off,’ without the interposition of an intermediary physical medium, such as an opto-electric crystalline substance.

The beams of coherent light propagated by such devices exchange information via an interference fringe which interpenetrates and surrounds each beam of light. Information which has been encoded into one beam of light is flawlessly transferred to the other beam of light to perform all seven of the standard Boolean logic functions incorporated into computer operating systems. This discovery opens the door to a new era of light speed information processing technologies.

With the assistance of a newly developed holographic compression algorithm, a new electrically pumped high-temperature full spectrum, tunable laser glass material, and a new torsion field generator design, it may soon be possible to send and retrieve holographic data packets into the torsion field and retrieve them with predictable precision, instantaneously at any remote site. While there is still much work to be done to make this integration perform as we would like, our test data have convincingly demonstrated that the principles integrated into its design are sound.

Conclusions

There is no longer any question about the existence of a holographic information transport field which interpenetrates all things at all scales, in all places in the cosmos, and at all times. In short, torsion field technology is here to stay. By understanding how to operate in the context of torsion field mechanics, we hope eventually to be able to develop technologies and devices which will fundamentally alter the way we live. The practical applications to which this knowledge can be applied span the spectrum of literally all human experience and endeavor. We'll expand on the implications of this notion in the next section.

²⁸⁵ Akimov, A., Kurik, M., Tatasenko, V. "Effect of Spinor (Torsion) Field on Crystallization of Micellar Structures," *Biotekhnologiya*, 1991, no 3, page 69 (in Russian). See also V. Zhitnikov, A. Kamenshchikov, V. Ponomarev, "Precision Gravity Measurements and New Types of Physical Interactions," *Gravitational and Hypothetical Interactions*, ed. By Ya. Teriletsky *UDN Publ.*, Moscow, 1989, page 3 (in Russian). See also C.I. Cheng, P. Li, K.I. Szeto, "Microscopic Detection of Spin-Dependent Long-Range Interaction," *Phys. Lett. A.*, 1991, n0 4-5, page 235 (in Russian).

²⁸⁶ Reed et al., "Super-Luminal Velocity of Gravity Waves," loc.cit.

²⁸⁷ Obukhov, Yu., Pronin, P. "Physical Effects in Theory of Gravitation With Torsion," Moscow: *VINITI*, 1991, page 5 (in Russian).

²⁸⁸ United States Patent [19] Patent Number 5,093,802, March 3, 1992. "Optical Computing Method Using Interference Fringe Component Regions."

Institutional Resistance

Unfortunately, formidable barriers stand in the way of our pursuit of these avenues of inquiry. Physicists as a community are unwilling to give serious consideration to the investigation of superluminal phenomena. Conventional science continues to demonstrate an unwillingness to re-examine the findings and methodology of the Michelson-Morley experiments. It is generally held that the original methodology was so perfect that if Michelson et al couldn't demonstrate the existence of the physical vacuum in 1897, it simply doesn't exist.

Nevertheless, it should be noted that the extensive experiments conducted by Michelson and Gale²⁸⁹, which substantially supported the case for a physical vacuum, are never cited in conventional scientific publications, articles or physics texts. This is a peculiar case of selective recall and one of the disturbing symptoms that the pursuit of Science (big 'S') is in danger of creating the very problems scientists are supposed to be dedicated to solving.

Anytime the institutions of Science refuse to allow their practitioners to ask legitimate questions about how and why nature works as it does; any time the leaders of the scientific community refuse to dispassionately support any and every avenue of reasonable inquiry in the pursuit of truth and knowledge; anytime dedicated practitioners of the scientific arts are sanctioned, punished or ostracized for simply being willing to investigate a subject matter not accommodated by the Standard Model, everyone's interest in achieving a clear, untainted understanding of truth is jeopardized. This author has noted with growing dismay that the number of sacred cows, avenues of investigation either prohibited or aggressively discouraged by mainstream science, seems to be increasing rather than decreasing. It is cause for considerable alarm and provides a prima facie reason for stepping out of the box to re-examine the real relevance and validity of what we think we know.

The demonstrated existence of torsion fields appears to invalidate some of Einstein's postulates and equations. If torsion field phenomena are given credence, it will result at very least in the unequivocal invalidation of the Second Postulate of the Special Theory of Relativity. This by itself should be sufficient to cause scientists to dismantle much of the basis upon which quantum mechanics is predicated. This discovery can be reliably predicted to occasion the most strenuous resistance. In addition, in order to fully understand how the world works; that is, to formulate a robust theory of unified fields, we must also be able to accommodate the phenomenological aspects of metaphysics, in all their manifestations.

Consciousness Research

Today, the Standard Model does not accommodate metaphysical phenomena – it simply dismisses them. Any consideration of metaphysics is not a part of the scientific method, by definition, and is therefore prohibited or considered irrelevant. To succeed with this undertaking, we must be willing to conduct our pursuit of truth in a fundamentally different way. The scientific method itself must be expanded or redefined to embrace metaphysical phenomena if we are ever to have any realistic hope of achieving a clear grasp of how nature works.

The good news is that those of us who are exploring new technologies at the Edge are in good company. There are among us courageous, intrepid souls for whom the importance of knowing the truth surpasses the value of any degrees, certificates, credentials or investment in being right about outmoded notions. It is time for the greatest scientific minds of our time to turn their collective attention to solving the riddles associated with the discoveries which still remain not accommodated by the current Scientific Model.

²⁸⁹ Michelson, A.A., Gale, H.G. "The Effect of the Earth's Rotation on the Velocity of Light," *Nature*, no 115, page 566 (1925). See also A.A. Michelson, "The Effect of the Earth's Rotation on the Velocity of Light, Part I," *The Astrophysical Journal*, no 61, pages 137-139. See also A.A. Michelson and H.G. Gale, "The Effect of the Earth's Rotation on the Velocity of Light, Part II," *The Astrophysical Journal*, no 61, pages 140-145 (1925).

Much of what we witness in the pursuit of science is driven by the demands of culture. In our little corner of the world, scientists have learned to accumulate close to the sources of money like trout in a feeding pond. Those who dispense money have learned that science can be manipulated because it is only valued in the near term, so long as it produces technologies which can be patented, profitably commercialized or militarized. The result is predictable enough. The pursuit of pure science, research into the mysteries simply for the sake of obtaining knowledge, has become a seriously endangered species.

In its place, we discover that more than 70% of all scientific research is either funded by or geared toward applications of new technologies for weapons of mass destruction and related military uses. So long as our focus remains riveted on the selective pursuit of scientific advancements which hold the promise of near-term profitability to the exclusion of supporting a generalized search for truth and meaning, leading edge science and research into areas of knowledge which challenge the established order will find little fertile ground.

Nevertheless, science is teetering on the precipice of vast new arenas of knowledge, standing in that place which overlooks the void where nothing more can be learned from more powerful microscopes or larger telescopes. To go beyond the restrictions of our current level of understanding, the Edge of Knowing, there are no alternatives but to reconcile the pursuit of physics with the disciplined practices of metaphysics. The world has waited long enough to do this. Fritjof Capra showed us the way in the *Tao of Physics*. In the words of Star Trek's Captain Jean-Luc Picard, this author suggests it is time we decide to "Make it so, Mr. Crusher... Engage."

(Source: David G. Yurth's unpublished book "Seeing Past The Edge")

Torsion Field School Network

What may someday become one version of the 'ultimate' educational system is Gary Vesperman's design of a torsion field school network.

In June 1962 I read an article in Look magazine about programmed textbooks. A teacher claimed that one of her eighth-grade students took a programmed algebra text home, learned the whole course in four days, and tested 100% at the ninth-grade level. I myself as a high school junior in a very small northern Wisconsin high school over a rainy four-day Easter vacation in 1959 had solved all the problems in several chapters of an advanced algebra textbook. As there were only a half-dozen students in the class, for the remainder of the school year, our teacher allowed us to advance through the textbook at our own pace. Every so often we would stop to talk about advanced algebra.

That fall of 1962 I asked one of my electrical engineering professors John Asmuth at the University of Wisconsin-Madison "Why not use programmed textbooks in engineering courses?" He through a series of private chats in his office explained to me that programmed learning would make engineering courses too easy to learn. Furthermore, rote learning doesn't facilitate imaginative thinking and separating out the sharper students. (Later on when I was not attending engineering school I learned Boolean algebra with a programmed textbook – without the help of a teacher.)

Not satisfied with my professor's answers, I tried to visualize a better educational system. After considering as impractical various changes to the Labor Day to Memorial Day conventional course routine, I set out to design a completely different educational system as a hobby. I finally finished my design of a network of segmented courses in 1991!

One dozen to four dozen upper elementary schools, junior high schools, senior high schools and/or colleges are to be linked into a single network. The school network's three-layer computer system would comprise of a network coordinating and scheduling computer as the top layer, an administrative computer in each school as the middle layer, and personal computers as the bottom layer. The network's customized software would include network management and coordinating functions, two layers of software for the teachers to support 100 different functions, and 25 different functions for the students, only one of which is computer-assisted instruction. Each student's personal computer would have a monitor capable of also displaying televised or recorded classes.

The typically huge scale of a school network would economically justify the simultaneous teaching in parallel of all week-long segments of each course year round with no seasonal constraints. Segmented courses would still include the standard features of conventional courses such as classes, graded examinations, and credit load units. Short quizzes on each segment with pass/fail grading would provide quality control. Other nonstandard features of segmented courses include modifications of the project management tools Programmed Evaluation and Review Technique (PERT) and Critical Path Method (CPM), unique statistical techniques for selecting series of two or three local/televised classes for weekly scheduling, nearly unlimited self-pacing, replacement of 'grades' with student interest groups, and optimum utilization of the superlearning technique.

It should be emphasized that the school network's class scheduling algorithm gives priority to scheduling of local classes over televised or recorded classes as much as possible. Local teachers also could still provide personal help to students.

Both teachers and students would be able to take sick leave or vacation at any time. When the students return to school, they would be able to simply continue with their coursework without missing any school. At any time, a high school student for example could simultaneously be starting a course in English, halfway through a chemistry course, finishing a history course, and partway into a calculus course.

In 1992 I helped the Clark County School District apply to the New American Schools Development Corporation for a \$12 million grant to build a small prototype network of six high schools in Henderson and Boulder City. Competing with 685 other grant applications, our application failed.

In 1998 I invented a major advance in torsion field communications. The theoretical maximum capacity of torsion field communications is apparently 40 billion channels of three-dimensional holographic television through the entire earth without attenuation at one billion times the speed of light. Torsion field communication systems, with components only the size of coins, are expected to eventually displace all forms of electronic communications including telephones, television, radio, fiber optic cable, and communications satellites, plus the entire Internet backbone with possibly a cost reduction of much more than half.

Schools can be located all over the solar system and still be tightly linked via torsion field communications into a 'torsion field school network'. It could help bring about world peace if for example a school in each of Nevada, Iceland, Germany, India, Israel, Bahrain, Chile and even planet Mars were linked into a single torsion field school network.

A conventional course is thought of as a small-scaled static version of the full-scale dynamic segmented course in a school network. The conversion could take several months of installing and cabling equipments. Students, teachers, segmented course monitors, and network coordinators would then all be trained. In the meantime courses continue to be taught in the conventional manner. Whenever the network finally is running smoothly, and the people had become accustomed to using the software, parameters are changed in each and all of the courses. From that time on, smart students are able to speed ahead. Slower students learn at their own pace with some assurance that they are mastering the subject matter.

The end result would be a clear separation of teaching fundamentals from stimulating class discussions, graded examinations, and maintaining academic load standards. See www.padrak.com/vesperman for a detailed design of the torsion field school network.

Variations on the Maharishi Model: An Integration of Consciousness and the Unified Field

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Abstract:

Proposes that all phenomena in the material world arise from a unified causal plane denominated as Consciousness. Discusses numerous observable phenomena not accommodated by the current model of quantum mechanics [particularly the Second Postulate of Einstein's Special Theory of Relativity stated as $E=MC^2$], superstring theory, super-symmetry, spontaneously broken symmetry, conventional mathematical descriptions of the four primary fields or a variety of other conventionally accepted cosmological models. Proposes a new fractal-based 'spin-glass' model of the Cosmos which incorporates the attributes of a fifth primary field and the Lagrange points described in superstring theory with the harmonic resonances contained in the ancient Hindu text known as the Rig Veda.

General:

The baseline argument intrinsic to any discussion of the fundamental structure and underlying dynamics which govern the nature, attributes, behaviors and characteristics of the known Universe is simply stated: "Does consciousness arise as a consequence of self organizing complexity, or does matter arise as the manifestation of a causal plane of consciousness?" The purpose of this paper is to examine the expression of both sides of this discussion, evaluate the validity of the arguments and evidence, and propose a 'spin glass' model by which the apparent disparities between these two opposite positions can be reconciled.

Introduction:

It is taken as given that at the baseline, everything in the known Universe can be viewed as, and indeed is comprised of, information. The nature of the word itself is instructive. The structure of the word and its implicit meaning – in-formation – suggests that the description of the beginnings of the Cosmos contained in the ancient texts of many of the world's ancient cultures may not be far from the mark. We will demonstrate a cogent model by which to illustrate the validity of the concept, that at the beginning is the 'word' containing all the information required to create and un-create the Cosmos in a continuous, unending cycle. This what Fritjof Capra refers to as the Dance of Shiva²⁹⁰.

Before consideration is given to the underlying argument, it is instructive to define the terms and mechanisms which are believed to support the design of the 'spin-glass' model proposed here. Information is known to be self-organizing in complex, open systems. Four basic attributes are common to all such systems:²⁹¹

²⁹⁰ F. Capra, "The Tao of Physics", Shambala Press, 1995 3rd Edition.

²⁹¹ Per Bak, Per Bak, "How Nature Works", Springer-Verlag (New York @ Copernicus) 1996.

- (1) ‘noise,’ defined in conventional quantum mechanics as the one attribute intrinsic to every system. This is the background noise, the threshold of interference, above which a quantum event must rise before it can operationalize its discrete functions;
- (2) logarithmic relationship between the relative severity and frequency of events referred to in the current literature as ‘catastrophic,’ that is, events which arise from time to time as natural expressions of the system;
- (3) open systems self-organize to a point referred to as ‘criticality.’ This is the point at which the attributes and behaviors of constituent components comprising a complex, open system can no longer be distinguished from each other but operate, instead, in concert as a single, unified system; and
- (4) the behaviors of any such system, that is the severity and frequency of the observable events which arise from the system, always find expression in the form of fractal geometry²⁹²³.

Definition of Consciousness:

‘Consciousness’ is customarily defined in terms of "...the quality or state of being aware, especially within oneself...the state or fact of being conscious of an external event, object, state or fact...awareness." For the purposes of this discussion, we define ‘consciousness’ as "...the universal field which contains all information, referred to by the mystical traditions of the East as ‘Oneness’ or the ‘One.’ Having or exercising total consciousness means having access to the Source of all information. In the Zen tradition this state is referred to as Satori; in Las Vegas, at the gaming tables, it is referred to as ‘the Zone.’

The conventional definition, as described in the not inconsiderable works of Nobel Laureate Gerald Adelman, limits considerations related to the topic to the state of awareness of a single individual, one individual at a time. The reality of non-local attributes of transpersonal communication in all its various and often mysterious manifestations suggests that we have reason to question the sufficiency of Adelman's model. Nevertheless, we believe it is valuable to examine the contributions made to the state-of-the-art by such luminaries as Adelman and Varela.

Transpersonal Communication:

The component of communication not accommodated by the conventional models in current scientific use has been best described as Transpersonal Communication by E. Lazlo²⁹³. The areas of investigation which could be embraced by this general term are described as:

- * Telepathy [Extra-Sensory Perception (ESP)]²⁹⁴
- * Twin Pain Phenomenon²⁹⁵
- * Remote Viewing²⁹⁶
- * Synchronization of Brain Patterns²⁹⁷
- * Spontaneous Cultural Links²⁹⁸

²⁹² Add: Fractal as 3-D representation of holographic attributes = infinite complexity and non-local accessibility to information. Each component contains the analog of all information defined by the whole.

²⁹³ Erwin Laxlo, “The Whispering Pond: A Personal Guide to the Emerging Vision of Science”, Element Books, Inc., 1996.

²⁹⁴ As described in the work of Dean Radin [“The Conscious Universe”], the practice, use of and reliance on ESP as a fundamental means of communication, is still widespread among primitive tribes [see Mutant Walkabout Down Under etal] [ref: J.B Rhine, Hal Puthoff, Russell Targ, Grenberg-Zylberbaum, etc.]

²⁹⁵ See also "Treatment Results..." in Lazlo, “Whispering Pond”

²⁹⁶ See the literature of Schnabel, Moorehouse, McMoneagle, Puthoff, Targ, Swann, etal “Operation Stargate”.

²⁹⁷ [Particularly among groups of meditators ibid Lazlo]. The Maharishi Effect [Tolpingrud]. Tony Nader/John Hagelman. 101 Monkey Syndrome @ Rupert Sheldrake/ Morphogenetic Field effects as described in 7 Experiments That Could Change The World.

²⁹⁸ See also Lazlo, “Whispering Pond”, for added detail – The Archeulian hand-axe phenomenon. Parallelism of pyramid development, etc.

Consciousness and the Human Brain – notions about the physical links:

We can still hold to what science thinks it has learned, so long as we are willing to admit that reality at the quantum level operates in ways which are simply outrageous at the level of the human senses and ordinary experience. Nevertheless, we have become more comfortable with the quantum paradoxes. Things at the micro-scale are bizarre but explainable, quantifiable or at least describable, using complex numbers, Riemannian geometry, superstring theory and all the rest of the appropriate branches of mathematics. Santilli's recent work in Hadronic Mechanics has significantly contributed to our understanding of quantum dynamics at the nuclear level. Finding such stuff in the innermost workings of the brain should really not surprise us at all. Indeed, when compared to such complex considerations as human history, psychology or culture, it is even somehow comforting.

The original Hebb Hypothesis, first proposed by Donald Hebb in 1949, is still held to be true. This hypothesis holds that learning changes some physical aspect of the structure of the brain. It proposes that the altered feature somehow encodes the learning event in an identifiable physical format. This physical feature, called the Engram, was conceived of as occurring somewhere on the synaptic level. Since there are known to be hundreds of thousands of synapses for each of ten billion neurons contained in the brain, this has led researchers to the conclusion that the brain may be capable of holding upwards of 2.8×10^{20} data bits in active memory. Until recently, this seemed more than adequate to explain the human attribute referred to as consciousness.²⁹⁹

Since it is also within the realm of possibility that computers can be constructed with data storage and processing capabilities which are known to be roughly equivalent on a gross scale to those possessed by the average human brain, this has led to the now almost thoroughly discounted notion that it is possible to create machines with sentient artificial intelligence. This notion has since given rise to the machine fallacy, an inverse of the pathetic fallacy, in which the brain has been thought of as nothing more than the most powerful machine of all time. However, in spite of intensive, impeccably documented research, no evidence of Engram sites has ever been found. Any number of impeccably designed, conducted and documented experiments have failed to locate these sites, including one in which various parts of rat's brains were removed after they learned a task, with no part of the brain proving essential. Frustrated experimenters have been forced to conclude that memory is 'everywhere and nowhere,' leading to the recent analogy in New Age circles of the 'brain-as-hologram', which is perhaps even sillier than all other brain-as-machine analogies.

More recent experiments have clarified some of the underlying issues related to the question – "What is consciousness and how does it operate in the human form?" It is now obvious that all the actions of consciousness take place on a level far smaller even than that of neurons. In this finer grained appraisal, scientists today are investigating the cyto-skeletons of neuron cells, which have recently been demonstrated to be comprised of well-ordered internal arrays of microtubules. The structure of each of these microtubules consists of a symmetrical array of hollow tubes, each of which, in turn, is made of thirteen columns of tubulin dimers. Dimers are peanut-shaped globular protein pairs, each measuring in the neighborhood of $8 \times 4 \times 8$ nanometers, existing in two different configurations, depending on their electrical polarization. The dimers may represent the on-off switch which Hebb thought of as part of the Engram concept. The problem with his conclusion is that these components are so small that the electrical state of each dimer is influenced by the polarity and other attributes of the dimers which surround it. In this proximity, interactions between the individual dimers demonstrate the primary field effects described in quantum mechanics. This discovery provides a fascinating insight into the quantum level functional mechanisms which support the functions of human consciousness, including intelligence and memory.

²⁹⁹ G. Edelman, G. Tonori, "The Universe of Consciousness: How Matter Becomes Imagination". See also G. Edelman, *Bright Air, Brilliant Fire: on the matter of the mind.*

Messages of all kinds can be probably be propagated along each microtubule column and thence along the protein ridges which connect them. Each dimer contains about 450 amino acids, which are thought to retain information by reorganizing their amino acid sequences. Also contained inside the dimer columns are tiny threads of water in an ordered state, a state called vicinal water. Vicinal water is thought to be capable of conveying quantum-coherent oscillations for the length of the tubule – in effect, operating as an oscillating transceiver of quantum level frequencies which maintain a standing wave. The degree of complexity involved in the structure demonstrated at this level is compelling. Each dimer appears to contain sufficient amino-acid complexity to sustain independent life forms, the complexity of which exceeds the known minimum by at least one order of magnitude.³⁰⁰

A number of experiments conducted on the brains of living monkeys, using miniaturized instrumentation of many different and novel kinds, has established that while consciousness is engaged in the process called ‘thinking,’ the amino acid sequences contained in the dimers have been observed to shift, while the tubulin dimers themselves have been observed to actually change shape simultaneously in many different locations in the brain. All of this has been observed to take place in phased pulses. The most robust model developed to describe the incremental levels involved in this ‘thinking’ activity suggests that the microtubules actually move during the thinking process, sometimes growing to new quantum-defined states and remaining there.

On a much larger scale, dendrite spines have been observed to simultaneously grow and make new connections, sometimes changing synapses permanently and sometimes not. This is believed to be the physical mechanism by which the brain's 10^{24} neural connections develop into new, permanent neural pathways as part of the learning process.

The best model currently available suggests that memories are encoded somehow as standing patterns of quantum-coherent oscillations³⁰¹, set up by changes in the microtubules and their constituent parts, all working in patterns inside the individual neurons. There are now research models which suggest that there could be significant action at even finer ultramicroscopic levels, permanently beyond our ability to directly investigate. The results of the most sophisticated analyses suggests, in addition, that the brain's quantum-coherent oscillations may be structured in a kind of spin-network, comprised of patterns of nodes and sub-synaptic networks, eerily reminiscent of the palace-of-memory plan – rooms and hallways – suggesting that the ancient Greeks by introspection alone somehow intuited the very geometry of time-space. The nature, structure and the operative functions of these neural networks and nodes are described, in part, in the current version of superstring theory.³⁰² The descriptions and predictions made by superstring theory seem to be supported by discoveries also being described in the emerging literature arising from research into various aspects of the torsion field.³⁰³

It is becoming increasingly likely that the ultramicroscopic quantum interactions at the vicinal water level are implicated in the brain's plasticity. They are believed to play a fundamental role in how the brain learns and remembers. Memory, and therefore the functions of consciousness, apparently happens at a far smaller level than has previously been imagined. This would give the brain a much higher computational capacity than previously thought, up to perhaps 10^{24} operations per second – some calculations have this limit set as high as 10^{43} which, if true, suggests that the human brain is, in a sense, more complicated than all the rest of the Universe [minus its other consciousnesses, of course] put together.

³⁰⁰ See Grammatical Man: Information, Entropy, Language and Life, Jeremy Campbell, Simon & Schuster, New York, 1982, page 122-124. "Nature As An Information Process - Something Rather Subtle," describes the astonishingly clever adaptation in a virus known as ØX174. This virus stores information by means of a DNA text so cunningly comprised as to tax the ingenuity of a master anagrammist.

³⁰¹ See "Ruggero Santilli" and JNE - Hadronic Model of Quantum Interactions.

³⁰² John Hagelin, "Is Consciousness the Unified Field? A Field Theorist's Perspective", Maharishi International University, Fairfield, Iowa, 1989.

³⁰³ For a definitive description of the controversies and short comings of superstring theory, see Erwin Lazlo, "Whispering Pond" and Santilli, Book III JNE Aug 99.

Recent experimentation has made it clear that large-scale collective quantum phenomena occur in every brain. The human brain demonstrates both global quantum coherence and quantum entanglement, as functions of the quantum relationships between the various electrical states which operate at the level of the microtubules. This likely means that all the counterintuitive phenomena and sheer paradox of quantum reality are an integral part of consciousness itself. It has only been recently, by making allowances for the quantum effects operating in the cyto-skeletons, that a team of French researchers [Francisco Varela et al] has finally managed to put forth a plausible theory as to why general anesthetics work. In their model, pain is an informational function which operates in terms of non-local effects at a distance. This fascinating work begins to explain such mysterious phenomena as phantom pain originating in missing limbs and so on.

When we begin to investigate the attributes of consciousness, we are confronted by a bizarre quantum world in which we can observe non-local action at a distance, in which decisions not made could effect events that have already really happened, and in which certain events in the present seem to be triggered teleologically, that is to say, by events which appear to have occurred in the future. All these observations support our intuitive feeling that the human mind is a deeply mysterious black box which science can scarcely hope to investigate. In order to do so, we must be willing to crash hard against the great unexplainables of reality itself.

At an extremely fine level of structure in the brain, a record of much of one's past is encoded in a uniquely complex network of synapses, microtubules, dimers containing vicinal water and amino-acid chains, all small enough and near enough together to exert quantum effects on each other. The patterns of quantum fluctuation, diverging and collapsing, operate according to the same set of rules which also describe the wave forms associated with fractal geometry: Is this consciousness?

The patterns which accompany mental activity are clearly held or generated in specific parts of the brain. They are the result of a physical structure articulated in what appear to be repeated patterns of self-organized complexity on many levels. The hippocampus, for instance, is critically important, especially the dentate gyrus region and the perforant pathway nerves which lead to it. The hippocampus is extremely sensitive to action in the limbic system, located directly underneath it in the brain. The limbic region is in many ways the seat of the emotions, what the ancients would have called the heart. Thus, the emotional charge of an event has everything to do with how it is laid out in the memory. This is not wishful thinking – it is a quantum effect.

Things happen. Consciousness witnesses or experiences them. A great deal of this experience has been shown to result in physical changes in the brain which become hard-wired for as long as one lives. This is particularly true with respect to any event heightened by emotional content. This seems right – what is felt most profoundly is remembered best and most easily, or forgotten most assiduously, as certain experiments have suggested, with an unconscious constant effort that is not true forgetting at all but rather, repression.

If the work of our colleagues abroad is clearly understood, it also seems likely that the constant reversal of polarization attributed to the behavior of the dimers creates tiny torsion fields³⁰⁴ at the sub-nuclear quantum level of the brain. The standing wave quantum coherent oscillations which operate continuously in the vicinal water, accompanied by the reordering of the poly-peptide protein chains contained in the dimers, suggest that a dynamic information storage mechanism is at work at this level. The physical dimensions of the torsion fields generated by this mechanism are not directly measurable with existing technology, but it should be possible to calculate field strength, vortex attributes and other characteristics of these fields by extrapolating from calculations of the spin-polarity, angular momentum and vector velocity of the waveforms associated with them. When the combined effect of the individual torsion fields created by 10^{24} dimers, all operating simultaneously within an enclosed volume of less than 3 liters, is calculated, it becomes easier to appreciate the extraordinary dynamics associated with some of the brain's most mysterious functions.

³⁰⁴ Torsion field footnotes – see references to Akimov, Shipov, et al in the Journal of New Energy and independently published papers.

Accordingly, if we view the torsion field as a holographic field which interpenetrates space-time at the sub-nuclear, primary level throughout the Universe [and which conveys information at least 10^9 times faster than light], we begin to sense how the physical storage locations Hebb erroneously referred to as Engrams may actually operate. This suggests something genuinely profound about the nature of the brain – while it certainly cannot be referred to as a hologram in and of itself, it seems more likely than ever that the brain relies on a holographic field of information transference for even the simplest of its functions.³⁰⁵

More importantly, the quantum level behavior of the microtubulin dimers and the constant rearrangement of the amino-acid chains which bind them together, can be shown to operate with a clearly definable set of frequency resonant values. The quantum-coherent oscillations of these structures seem to operate in synchrony with a fixed set of harmonic resonances. It is of more than passing interest that the entire spectrum of these resonances may have been described in mystical literature more than 5,000 years old. The verses of the Rig Veda have been shown to be the lyrical representations of the manifold harmonic resonances which define the structure, behavior and attributes of the material world as we know it.³⁰⁶ If the inferences contained in these two bodies of information can be cogently integrated into our ‘spin-glass’ model of the Universe, this could provide us with a way to describe not only the mechanisms by which Consciousness operates in the human condition, but the attributes of the relationship between human consciousness and all things, living or inert, as well.

Superstring Theory – Issues:

Superstring theory is a mathematical attempt to describe the steps which characterize the organization of matter from a point of singularity – a pure datum defined as a point in a vacuum with diameter of 10^{-33} cm, the Planck distance – through numerous stages of quantum-defined organization and complexity. The theory defines the formation of matter in terms of 10 dimensions, which are defined by eight field operators, each of which possesses three axes. The theory breaks down at the primary level by resorting to a concept universally referred to as ‘super-foam.’ The inherent silliness of ‘super foam’ – the ‘glue’ which binds superstrings together at the 10^{-33} cm level of structure – has yet to be adequately dealt with by proponents of this theory. The theory does not address the functional dynamics which operate on the primary level, by which information as a singularity becomes an expression of complementarity and duality. Nor does it accommodate the reverse of this process, which is also thought to operate contemporaneously.³⁰⁷

String Theory and Hodowanec's Phytion Concept of Torsion Fields:

The current version of superstring theory embraces a number of exceedingly complex concepts, most of them theoretical and all of them subject to a certain degree of personal interpretation. These include Lie algebras, Euler numbers, six-dimensional spatial topologies, differential geometries, Grassmannian variables, a number of emergence operators and so on – pretty exotic stuff. While I don't pretend to be conversant enough in the language to write it, I believe the concepts embodied in superstring language and its constructs can be viewed from another angle. When converted to expressions of spin-polarity, angular momentum, vector velocities and

³⁰⁵ During a recent meditation, I began to visualize a fractal – I had just watched the film *Colours of Infinity*, an examination of the mathematical discipline known as fractal geometry, focusing on the Mandelbrot Set, a geometric shape of infinite complexity. As my mind descended into successive levels of the fractal image, I was struck by the fact that each level, indeed every component at each subset, contains both infinite complexity and all the information contained in the fractal itself. This is precisely what holograms do. Every subset of the hologram contains a portion of all the information contained in the whole. By its nature, the universal hologram manifests infinite complexity. I have never seen a mathematical integration of these two fundamental concepts – that doesn't mean no one has done it, but it does suggest that if I haven't read about it or seen reference to it in the literature I have been surveying for the past 15 years, it is unlikely that any work of this kind has been published in a context which has any general application or access.

³⁰⁶ See Dr. John Hagelin's integration of the Rig Vedic verses [Twenty-seven Expressions of the Constitution of the Universe] with the Lagrangian variants of superstring theory contained in the publication “Celebrating Perfection in Education: Dawn of Total Knowledge”, Maharishi Vedic University Press, 1997, pp. 52-64.

³⁰⁷ This is a fundamental point not addressed in known mathematical models relying on superstring theory. See Santilli's analysis of the inherent shortcomings of superstring and super symmetry theory. “The Physics of New Clean Energies and Fuels According to Hadronic Mechanics”, Special Issue, Journal of New Energy, Vol. 4, No.1, Summer 1999.

so on, I believe we will be able to quantize such things as the mathematical expressions for gravity, electromagnetic forces and the atomic nuclear forces in the same expressions as those which have been employed to define and describe torsion fields.

One of the problems with string theory is that it has always been impossible to reduce any of its terms to experimentally verifiable components. The theory describes the smallest particles of the space-time continuum, not as geometrical points but as ultra-microscopic loops, vibrating in ten (10) dimensions, six (6) of which are compactified around other loops, which makes them exceedingly small mathematical objects. The space they are thought to vibrate in can be quantized into loop patterns which can then be referred as spin networks. This concept is enticingly close to Hodowanec's torsion field phyton construct.³⁰⁸

In superstring spin networks, the lines of force in the finest grain of the gravitational field are described as acting somewhat like the lines of magnetic force around a magnet, allowing the strings to vibrate only in certain resonant harmonic patterns. When I began to understand this component, I could not help but reflect on Hodowanec's note in the March 1999 New Energy News entitled Resonant Frequency of the Aether, page 21, in which he specifically describes the nature and frequency of the harmonic resonances which operate in the Schumann Resonance as harmonics of the Rhythmic baseline frequency of 1.855×10^{43} Hz.

The current model suggests that the super-symmetrical strings, vibrating harmonically in ten-dimensional spin-networks, account for all the various forces and particles which are known to operate at the sub-atomic level, including bosons, fermions, quarks and now sub-quarks.³⁰⁹ The current Lagrangian formulation includes descriptions of the gravitational effects associated with each of them. A fully integrated theory based on spin-polarity, angular momentum and vector velocities of the waveforms of these sub-atomic components should be able to successfully mesh the fundamental requirements of quantum mechanics with the dynamic features of gravitational force – this has always been the shortcoming of the superstring theory approach.

The problem with all this is the intrinsic difficulty of accommodating experimental verification. The difficulty arises because of the exceedingly small diameters of the loops and spaces described in the theory. They are all in the 10^{-33} centimeter range, which is precisely the so-called Planck length. This dimension is twenty magnitudes smaller than the smallest sub-atomic particles described by quantum mechanics, including sub-quarks [if they even exist at all]. This means that the size of a single string network is to the size of an atom as the size of an atom is to the diameter of the solar system. This means that under conventional protocols, this distance is much too small to be experimentally verified.

The challenge here requires a rather fantastic leap beyond the revised model of superstring theory to measure the Planck distance, which is the smallest realm possible. This is the minimum quantum movement, which cannot be decreased without violating the Pauli exclusion principle. With conventional experimental protocols, in order to actually 'view' events at this diameter, energy levels on the order of 10^{19} GeV would be required. There is nothing even remotely close in our sciences, technologies or materials to accommodate this kind of power output requirement. This is the kind of energy which is only to be found in the heart of a supernova event at the moment of maximum compression – not likely to be found in the bottom of a test tube or anyone's laboratory.

The closest anyone has come to approximating the dynamics of this requirement is the experiment recently conducted at the Stanford Linear Accelerator. In 1997, a team of more than 20 scientists on loan from a half dozen of America's top physics labs participated in an experiment which has world altering implications. The

³⁰⁸ See Hodowanec's Rhythmic Cosmology, unpublished private papers compiled from the files of Bill Ramsay, 1985.

³⁰⁹ See R.Santilli, Ethical Probe on Einstein's Followers in the USA: An Insider's View [Il Grande Grido – A Cry in the Wilderness], Alpha Publishing, 1984. There is considerable question as to whether quarks and sub-quarks actually exist as definable particles. The unresolved issue which challenges the conventional view suggests that because these sub-atomic particles cannot be assigned gravitational coefficients, they cannot exist in space-time.

fact that no one saw this result posted in banner headlines on the 10:00 o'clock news should not be surprising. At the Stanford Linear Accelerator facility in California, this team succeeded in creating positron pairs, with measurable density and particle mass, by crashing two high-intensity laser beams of monochromatic light together in a vacuum. Their experiment was not an accident – they set out to do it deliberately and kept working at it for six months until they succeeded.³¹⁰ Their result has since been replicated by a number of other prestigious labs elsewhere in the world.³¹¹ Quantum mechanics and Einstein's equations clearly assert that it is patently impossible to create matter with nothing more than real photons, in any environment, under any circumstances. The result speaks for itself. The Second Postulate of Einstein's Special Theory appears to have been invalidated by their results. Since the results of this work cannot be denied, there must be something incomplete about the way quantum physics defines the process by which matter is continually created and destroyed at the sub-quark level. Santilli's hadronic mechanics may hold the key to unlocking these mysteries.

An interesting item of note is that the concept of a torsion field detector, in effect a monopole detector of non-local events at a distance, is comfortably accommodated by superstring theory. Since conventional physicists have no concept about what this kind of device would look like, it has always been assumed that such a thing is just another impossible phenomenon – but we know differently. It is the current availability of this sort of device, which the Russians have been using for years without calling it by this name, which has enabled the Soviet Academy of Sciences to verify the existence of the Z particles – matched pairs have long been predicted but only one variety of Z particle has ever been actually detected. They have also used such devices to isolate the particle referred to as the 'weakly interacting massive particle,' a WIMP, with a particle mass as large as that of a bacterium. The controlled use of such a device would provide the physical means by which the notions we have about black holes and dark matter could be experimentally investigated.³¹²

Rig Veda - Issues of Coherence and Harmonic Resonance:

The structure and nature of the Rig Veda, including its peculiar orientation to the linguistic structure of Sanskrit, makes no accommodation for non-local effects at a distance which characterize the complex functions of the brain and the self-organizing behaviors of the Cosmos. These issues of time/space and an appraisal of the mechanisms of information transfer and access which define and regulate their nature and functions are an essential component of our inquiry.

The Maharishi Model of Consciousness, as described in publications provided by Maharishi Open University Press, defines consciousness and the acts of creation as inextricably related at an initial point which is defined as a singularity – a single waveform – a sound – which contains by definition all information. The model holds that this singularity is archetypal by nature and demonstrates no polarity, duality or other manifestations of a convergent relationship in time/space. The singularity is further defined as a sound which arises into being from a causal plane comprised of all information in the form of infinite potential and total silence. Each emergent singularity marries another to create a perfectly matched pair – not at all unlike that which is described in Santilli's hadronic mechanics and Hagelin's version of superstring theory. The combination of two sounds is shown to contain all elements of the material world in a primary prototype – a beginning, a gap of separation between beginning and ending, and a sound of completion.

The organization of the harmonic resonances described in the Rig Veda occurs at quantum-equivalent levels referred as the 'gap.' This is the interval between the dynamic and silent operators which correspond to descriptions of synchrony and assynchrony found in Hagelin's version of the Lagrangian computations of superstring theory.

³¹⁰ K.G. Tatterson, "Boom! From Light Comes Matter." Photonics Spectra, November 1997, page 31.

³¹¹ These experimental results have been replicated thus far at Stanford University, the University of Rochester at Rochester, New York; Princeton University in Princeton, New Jersey, and the University of Tennessee at Knoxville.

³¹² See Santilli's paper on the miscalculation of total mass required in the Universe as a direct result of the inconsistencies of quantum mechanics at the level of 10^{-13} cm and beyond.

As matched pairs of 'sound' find harmonic resonance with other pairs, combinations of harmonic resonances proceed through a series of carefully defined levels of complexity, which comport with a set of rules which Hagelin and Nader have compared with the rules of quantum mechanics. The ten dimensions defined in superstring theory are compared with the ten (10) Mandalas contained in the totality of the Rig Veda. The eight (8) field operators of superstring theory comport nicely with eight (8) Parushas, which are defined as alternating dynamic and silent states. Each Parusha is characterized by three (3) discrete components. These elements, which comport with the three-dimensional axes defined in superstring theory, are referred to in the Rig Veda as the Viewer, the process of Viewing and that which is observed.

According to the model proposed by Hagelin³¹³ and further refined by Akimov,³¹⁴ the plane of corporeal existence, the space-time dimension we currently experience in waking states of consciousness, the process of creation and destruction, occurs at all times and places without regard to time or distance. The mechanisms which operate at the point of interface between the causal plane of all-knowing Consciousness, at which each resonant singularity emerges or disappears, is not defined in these models – no operative vehicle is separately provided in the text or structure of the Rig Veda. Nor is any provision made for the mechanism which supports the phenomenon referred to as the 'Maharishi Effect.'³¹⁵ Hagelin argues that conscious is the Unified Field itself, but this begs the question we are compelled to ask – "How does this mechanism operate?"

The absence of a mechanism to support the non-local effects relied on to characterize this Model, in either the Rig Veda or superstring theory [this is where the silliness referred to in the theory as 'super foam' comes into play] is illustrative. At every level of material existence, in every open complex system from paired positrons to cultural parallelism, from the 101st monkey syndrome to the self-organizing behaviors of galaxies, it is clear that the information which is intrinsic to each of those processes operates non-locally, without regard to time or space and without attenuation. We propose that the medium by which the information which defines the attributes and governs the operative behaviors of all such systems, is simultaneously and instantaneously shared via a fifth primary field, referred to in the literature as the torsion field.

Torsion Field Phenomena:

Today, we propose a new cosmology which we believe not only accommodates the phenomena we observe and cannot explain,³¹⁶ but which also provides the framework for conducting our investigations well beyond the limits of current understanding. Here is how we think it works:

Michelson and Morley looked for the mysterious energy source of field energy for seventeen years and because of the restrictions imposed on them by their experimental methods and the technologies which were then available to them, failed to identify it or confirm its existence.³¹⁷ They called it the 'Aether.' Over the past 150 years scientists from all over the world have been looking for evidence of its existence. They have given it all sorts of interesting names, including pseudo-magnetism; the 5th force; Tesla called it the Empty Wave; Moray called it radiation energy; Fienberg referred to it as the Tachyon Field – Star Trek picked this one up because it sounded so good. The current favorite appellation is Zero Point Energy. There are more than 50 other names which have been used to define the fabric of space.

³¹³ Hagelin – "Is Consciousness the Unified Field?"

³¹⁴ Journal of New Energy – Heuristic Model ...

³¹⁵ Maharishi Effect - data and references.

³¹⁶ Akimov, A.E., "An Heuristic Discussion of an Issue of a Discovery of New Long Distance Interactions," EGS-Concepts, MINTC VENT, pre-print N7A, page 63 (Russian).

³¹⁷ A.A. Michelson and Henry G. Gale, "The Effect of the Earth's Rotation on the Velocity of Light," Nature, no 115, page 566 (1925). See also A.A. Michelson, "The Effect of the Earth's Rotation on the Velocity of Light, Part I," The Astrophysical Journal, no 61, pages 137-139. See also A.A. Michelson and H.G. Gale, "The Effect of the Earth's Rotation on the Velocity of Light, Part II," The Astrophysical Journal, no 61, pages 140-145 (1925).

The fact that so many excellent scientists have attempted to name the field by describing it as a function of some of its observable attributes simply demonstrates that a sufficiently robust model has not yet been developed to accommodate the many interesting attributes which have been ascribed to it over the years. What is undeniably true about this field, which is generally referred to in current literature as the physical vacuum, is the following:

1. More than 10,000 papers have been published by more than 500 teams of scientists over the past one hundred twenty years, describing what it is, what functions it performs, how it works and where it is to be found.³¹⁸
2. The state-of-the-art devices which have been created to operate in this field are becoming more prolific and sophisticated every day. Today, anyone can buy a 5th field generator from any of four sources in the former Soviet States. Their devices have been constructed, operated, tested, documented and patented. They propagate information into and retrieve information out of a field which we will describe as the Torsion Field.³¹⁹
3. The theoretical structure and functional dynamics of the physical vacuum and the role of the torsion field are becoming clearer every day. References are available to more than 250 different papers, journals and books which describe many of the interesting features of the physical vacuum and the torsion field. Trenergy, Inc., had plans to offer a number of gravimetric sensors and torsion field generators for sale to other researchers. In addition, Nu OmniComm Technologies, Inc., has applied for a patent which describes a process that is hoped will become the first fully functional bi-directional torsion field communications system.

A New Approach:

The context within which we propose to introduce this new approach to constructing a unified field theory is not exotic. Collectively, let us do what the Copenhagen School did – let's look at the current model with a different set of glasses for a moment. We propose that a unified medium – to which we will refer as a matter of convenience as the physical vacuum – can exist in a variety of different phase polarization states. In the state of charge polarization, the given medium manifests itself as an electromagnetic field. In the state of longitudinal polarization, the medium manifests itself as a gravitational field. In the state of transverse spin polarization, the same medium displays itself as a torsion field. At the nuclear level, Santilli's model of hadronic mechanics provides the mathematical constructs needed to support the parallel geometrization of the field equations which describe the strong and weak nuclear forces. When considered together, the electromagnetic, gravitational, nuclear and torsion fields all correspond to polarization of spin states in the physical vacuum. Please consider the following:

[1] It is proposed that the weak and strong atomic forces, electromagnetic fields and the gravitational field are not separate and distinct phenomena. Rather, we suggest that they all arise from the same original causal plane and operate inextricably and contemporaneously in the physical vacuum. As Akimov suggests, for a wide range of situations, it is useful to interpret all five fields as polarized conditions of the physical vacuum. We grant that the spin polarization states SL and SR contradict the Pauli Prohibition.³²⁰ We beg the question by suggesting that under certain quantum mechanical conditions, the fundamental laws of quantum physics

³¹⁸ Akimov, Shipov et al, "Torsion Fields And Their Experimental Manifestations," J. New Energy, vol 2, no 2, 1997.

³¹⁹ A.E. Akimov, G.I. Shipov, "Torsion Fields And Their Experimental Manifestations," J. New Energy, vol 2, no 2, 1997. See also V. Bunin, "Latest Problems of Gravitation in the Light of Classical Physics," abstracts of papers of the 4th Astrogeological Workshop of the Geographical Society under the USSR Academy of Sciences, Leningrad, 1962, page 88 (in Russian). See also, V. Bunin, "Unified Gravitational Equations of Mathematical Physics," author's abstract of MIOP section, 1965, vol 1, no 4 (in Russian). See also V. Dubrovsky, "Elastic Model of Physical Vacuum," DAN USSR, vol 282, no 1, 1985 (in Russian).

³²⁰ J.A. Wheeler, "Einstein's Vision", Springer-Verlag, 1968, page 112. See also A. Dolgov, Yu. Zel'dovich, M. Sazhin, "Cosmology of the Early Universe", MGU Publ., Moscow 1988, page 200 (in Russian). See also M. Lavrent'ev et al, "On Remote Action of Stars on Resistor", Doklady AN SSSR, 1990, vol 314, no 2, page 352 (in Russian). See also A. Pugach, A. Akimov, "Astronomical Observations by N. Kozyrev's Methodology: Preliminary Results," in the press (in Russian).

may operate in ways we do not yet understand. If it were not so, Murray Gell-Mann would not have been awarded a Nobel Prize for the discovery and description of quarks, which also violate the Pauli exclusion principle in every regard. The fact that the mathematical structure he ascribed to the operational states of quarks prohibited the existence of any smaller class of sub-atomic particles does not speak well of our understanding, since just last year his colleagues at Fermi Lab's validated the discovery of sub-quarks of six specific kinds. Presumably, they also violate the Pauli Exclusion Principle. The principles of hadronic mechanics as proposed by Santilli appear to reconcile the apparent conflicts not accommodated by the current model.

[2] Along with the attributes which have been developed to describe the torsion field as a holographic medium, characterized by a variety of behaviors which have been described conceptually, experimentally and mathematically as spin polarity and angular momentum, the formulas which have been developed over the past 100 years to describe the other four primary fields can all be converted to parallel geometricized form. A careful analysis of the basic formulas developed by Akimov, Ilyanok, Trefilov and, more recently by Myron Evan, Lawrence Crowell and Ruggero Santilli, is extremely revealing. The most stunning thing about them is the discovery that the characteristics of all four primary fields and the 5th field [which we have called the torsion field] appear to be completely accommodated by the set of functions which comprise spin polarity in linear, longitudinal and transverse functions, and angular momentum at both the quantum macrocosmic and nuclear levels. While there is still much work to be done here, it seems more than coincidental that these attributes are precisely what cause the torsion field to operate as it does. The formulas referred to include Einstein's equations, Young-Mills equations and Geisenberg's equations.³²¹

[3] It has been shown that information is conveyed in the Torsion Field at a rate which is at least 1,000,000,000 times the speed of light. This revelation, which is largely due to the ground breaking work of Russian scientist V.A. Dubrovsky up to 1985, has now been confirmed by at least six other laboratories in the former Soviet states.³²² The group velocity of torsion waves has also independently been shown to be at least 1,000,000,000 times the speed of light.³²³ A practical set of experiments which reveal just how important this concept is have been conducted both here and in the former Soviet States.

Here in the United States, Bill Ramsay describes an experiment in which Greg Hodowanec was able to not only record the occurrence of a solar flare more than eight minutes before it was confirmed by the photons and particles which entered the earth's atmosphere, but he was also able to measure the magnitude of the event, as it occurred. Nick Anthony Fiorenza and Alistair Couper have both reported on the use of gravimetric devices to record the actual transit locations of the planet Pluto, orders of magnitude faster than was possible using measurements based on conventional light wave sensing devices.³²⁴

³²¹ Akimov, A.E., "An Heuristic Discussion of an Issue of a Discovery of New Long Distance Interactions," EGS-Concepts. MNTC VENT, pre-print N7A, page 63 (in Russian); Akimov, Shipov, "Torsion Fields And Their Experimental Manifestations," Journal of New Energy, Vol. 2, No. 2, page 68, Summer 1997.

³²² A.E. Akimov, G.I. Shipov, "Torsion Fields And Their Experimental Manifestations," J. New Energy, vol 2, no 2, 1997. See also V. Bunin, "Latest Problems of Gravitation in the Light of Classical Physics," abstracts of papers of the 4th Astrogeological Workshop of the Geographical Society under the USSR Academy of Sciences, Leningrad, 1962, page 88 (in Russian). See also, V. Bunin, "Unified Gravitational Equations of Mathematical Physics," author's abstract of MIOP section, 1965, vol 1, no 4 (in Russian). See also V. Dubrovsky, "Elastic Model of Physical Vacuum," DAN USSR, vol 282, no 1, 1985 (in Russian). V. Dubrovsky, "Elastic Model of a Physical Vacuum," DAN USSR, vol 282, no 1, 1985 (in Russian).

³²³ V.A. Bunin, "Newest Issues of Gravitation in the Light of Classical Physics," Proceedings 4th Astro-Geological Meeting Geographical Society of AS USSR, L. 1962, page 88 (in Russian). See also V.A. Bunin, "Unitary Electra-Gravitation Equations of Mathematical Physics," Auto-repherates of speeches in the section entitled MOIP, 1965, no.1, p.4 (in Russian).

³²⁴ Bill Ramsay, "Fixed Rate Scanning, Enigma or Research Tool?," unpublished paper August 1997. See also, Bill Ramsay, "Exploring the Aethers: Adventures Inspired by Hodowanec's Discoveries," Proceedings of the International Symposium on New Energy, Denver, Colorado, May 12-15, 1994. Nick Anthony Fiorenza, "Gravitational Wave and Planetary Correspondence," Argo Navis, Inc., 288 Bluff St. Suite 474, Boulder, Colorado, 80301, 1994. Alastair, "Measuring Gravity," 181 Star Route, Hana, Hawaii, 96713. See also aquarius@t-link.net.

[4] We have reason to believe, based on the ground-breaking work of V.A. Ablekov, David Bohm and Karl Pribram, that the torsion field is holographic. The combination of these features suggests that a number of phenomena which are otherwise inexplicable can now be accommodated.³²⁵

[5] Unlike electromagnetism, where analogous charges repel and opposite charges attract, in torsion fields similar charges attract and opposite charges repulse.³²⁶

[6] As the torsion field is generated by a classical spin, we can observe and measure the precise effects of the alteration of spin state of the object or system which is encompassed by it. At the Institute for Problems of Materials Science in Kiev, scientists have for more than 25 years used torsion field generators as an essential part of the manufacture of exceedingly exotic materials for which we have no comparable products in the West.³²⁷

[7] Torsion field emissions are non-dissipative and are not attenuated by the interposition of mass or the effects of distance. Torsion fields cannot be screened by any known materials or combination of materials or fields.³²⁸ The results of the 1986 Moscow M-2 torsion wave communications experiments have been widely distributed. In this demonstration, a directional torsion field was modulated with a simple variation of the Morse code. The signal was instantaneously received at a point more than 22 kilometers distant using a similar low signal power device. The signal was passed through solid concrete more than 50 meters thick after having been propagated through a mountain more than 10 kilometers wide. Variations of this experiment have apparently been performed in a number of other locations in the former Soviet states since that time.

[8] The absence of any measurable attenuation of signal strength during the spread of a torsion wave group suggests that long-distance communication may be possible with the use of very low transmission power. The fact that torsion waves are not attenuated by material substances suggests that we may be able to devise systems which are capable of communicating through water or any density of physical material.³²⁹ This concept also suggests that we should be able to devise communications systems capable of supporting real-time communication without regard to the vast distances of space.

[9] Since all known substances possess a non-zero collective spin state, then all substances must also create and exist within their own localized torsion fields. We now know that the expanse and frequency structure of any substance is determined by its chemical composition and the expanse structure of its molecules or crystalline lattice. In addition to providing a fascinating insight into the way consciousness may operate at the level of vicinal water in the human brain, a clear understanding of these mechanics could enable us to create energy storage devices which demonstrate energy conversion characteristics well in excess of gasoline [650 watt-hours/kilogram].³³⁰ At the Institute for Problems of Materials Science, Trefilov, Tovschuk and Kovalyuk have created a solid-state energy cell [energy accumulator] which produces 850-1040 watt-hours/kilogram in laboratory models. The reliability of their claims regarding this technology have been verified by INEL, DARPA and the ATML. A key element of their construction method relies on the effects of a torsion field beam which operates during the process of crystalline lattice deposition.³³¹ IPMS has also perfected the use of a torsion field device which enables them to manufacture mono-molecular powders of strategic metals which can be stored in conventional glass containers without voluntarily generating static electricity.

³²⁵ David G. Yurth, Proceedings of the 4th Annual Symposium of the International New Energy Society, J. New Energy, Fall 1998.

³²⁶ Akimov, Shipov et al, "Torsion Fields And Their Experimental Manifestations," J. New Energy, vol 2, no 2, page 72, 1997.

³²⁷ David G. Yurth, "The Anthropos Files", (unpublished report of the sciences, materials, technologies developed at the Institute For Problems of Materials Sciences, Kiev, L'vov, Chernovitsky, Republic of Ukraine, from 1951-1991).

³²⁸ Akimov, Shipov et al, "Torsion Fields And Their Experimental Manifestations," J. New Energy, vol 2, no 2, page 74, 1997.

³²⁹ Akimov, Shipov et al, "Torsion Fields And Their Experimental Manifestations," J. New Energy, vol 2, no 2, page 72, 1997.

³³⁰ Convegno Internazionale: "Quale Fisca per 2000?" Bologna, 1991. See also David G. Yurth, Anthropos Files, *ibid*.

³³¹ Yurth *ibid*.

[10] It has been shown that torsion fields demonstrate persistence. This attribute is referred to in the literature as a residual field effect.³³² A torsion source of a defined expanse and frequency has been consistently shown to polarize the localized region of the physical vacuum. Once the energizing space-spin source has been put in motion and a torsion field created, and then removed to another place, the space which surrounded the torsion field generator will continue to exhibit the effects of the torsion field for as long as several hours. If we can delineate the dynamics which cause the persistence of residual field effect, we will be able to explain and harness the functional features attributed to dowsing, magnetically effected molecules of water and so on.³³³

(Comment from Gary Vesperman regarding "...torsion fields demonstrate persistence. This attribute is referred to in the literature as a residual field effect": A few years ago, I had on my office desk for a while Stewart Harris' theory of magnetic instability (TMI) toy demonstration device. The horizontal moving part of Harris' device comprises of a three-inch long stack of circular magnetic disks (roller). Each disk was an inch and a quarter in diameter, about an eighth of an inch thick, and had a magnetic north pole on one face, and a south pole on the disk's opposite face. The stationary portion of the device was two similar cylinders/stacks of magnetic disks placed in parallel with each other and taped down on a cardboard incline of approximately 30 degrees from the horizontal plane. Their distance apart was just enough to accommodate the length of the roller stack of magnetic disks.

If the roller cylinder is placed at the bottom of the incline between the bottom ends of the stationary cylinders, the roller by itself will roll *uphill* the incline. One interpretation of the roller being able to roll uphill is that it is drawing energy out of the omnipresent zero point energy field; not in seeming violation of the 'law' of conservation of energy. At the top of the incline, the roller normally stops between the upper ends of the stationary cylinders. But if the roller was immediately picked up, after it completes its roll up the incline, and placed back at the bottom of the incline, its spinning would retain enough residual torsion field energy to cause it to fall over the top of the incline.

If an experimenter wishes to build a TMI device, try to get buy disks with weak magnetic fields so that the roller will slowly uphill between the stationary stacks. Stewart Harris' device had weak magnetic disks. The magnetic disks I bought from Radio Shack for my toy were so strong the stationary cylinders were hard to tape down on the cardboard incline, and the roller would zip uphill too fast to easily demonstrate the residual torsion field energy effect. If weak magnetic disks can not be easily bought, try heating strong magnetic disks in an oven just long enough to weaken their magnetic fields, but not to completely erase them!)

[11] Teams of scientists from more than 50 laboratories have shown that it is now feasible to deliberately perform a wide variety of carefully calibrated functions using torsion field devices.³³⁴ We can build torsion field generators of both static and radiating types.³³⁵ We can select, adjust and fine tune frequencies modulated into the field with a high degree of precision. We can modulate and retrieve data into and out of

³³² A.E. Akimov, V. Binghi, "Homeopathy, Quantum Physics and Torsion Fields," Proceedings of the Congress of the International Homeopathic Association, Kiev, Sept. 25-29, 1991, page 143 (in Russian). See also V. Binghi, "Induction of Metastable States of Water within the Framework of Torsion Field Concepts," CISE VENT, 1991, preprint no 3, page 35. (in Russian).

³³³ Z.V. Harvalik, "The American Dowser", 1973, vol 13, no 3, page 85, 87. See also D. Chadwic, L. Jensen, Utah Water Research Lab., College of Engineering, Utah State Univ., Logan, 1971, page 120. See also S.W. Tromp, "Experiments on the Possible Relationship Between Soil Resisting and Dowsing Zones," Oegatgeest, 1956.

³³⁴ D.W. Sciamia, "The Physical Structure of General Relativity," Rev. Mod. Phys., 1964, no 36, page 463. See also D. Ivanenko, P. Pronin, G. Sardanashvilli, "Calibrating Gravitation Theory", BGU Publ., Moscow, 1985, page 143 (in Russian). See also Ya Zeldovich, "Interpretation of Electrodynamics as Consequences of Quantum Theory," Pisma v. ShETF., 1967, vol6 no 10, page 922 (in Russian). See also A. Sakharov, "Vacuum Quantum Fluctuation in Curved Space and the Gravitation Theory", DAN, 1967, no 1, page 70 (in Russian). See also V. Bellin et al, "On Quantum Gravitation Effects in Isotrope Universe," ZhETF, vol 6, 1980, page 2082 (in Russian).

³³⁵ A.E. Akimov, V.P. Finogenov, Experimentainiya Proyavleniya Torsionnykh Polei i Torsionnye Tekhnologii (Experimental Manifestations of Torsion Fields and Torsion-Based Techniques), Moscow: NTTs "Informatekhnik", 1996, 68 pages, published by Sci-Tech Center "Informatekhnik".(in Russian).

the torsion fields, including via two-dimensional spin matrices.³³⁶ We can operate efficiently in a variety of different modes of signal radiation.³³⁷ We can adjust and smooth the intensity of the S-waves,³³⁸ and we can operate simultaneously in both left and right S-wave chiral helicities.³³⁹

[12] Torsion fields can be detected, generated, switched on and off (such as in communications applications).³⁴⁰ We have demonstrated that torsion fields can be designed to interact with laser beams,³⁴¹ to modulate light frequencies and perform other functions. Torsion fields have been demonstrated to exert a specific effect on biological processes³⁴² and have been shown to be generated by certain melting and solidifying materials.³⁴³ Torsion fields affect the oscillation of quartz crystals,³⁴⁴ affect the functional characteristics of some electronic components,³⁴⁵ and have been shown to have verifiable, measurable and predictable localized effects on gravity.³⁴⁶

[13] In practical fact, we can point to a long list of applications that could benefit from carefully planned applications engineering which recognizes the properties of torsion fields and harnesses them for practical purposes. Among these are revolutionary new propulsion systems, long-range sensors, communications devices, astrophysical monitoring and metering devices, geo-physical devices which can be calibrated to locate mineral deposits, water, subterranean structures; photographic applications which are capable of imaging the interior of virtually any substance or structure, and so on.

The New "Spin-Glass" Model - Includes Torsion Field Effects:

It seems to me that what is needed to integrate torsion field theory with superstring theory is to create a task force, comprised of some of the finest mathematicians and theoretical physicists from wherever we can find them, to [1] geometricize the baseline equations which describe the four primary forces, [2] bring Hodowanec's Phyton concepts into line with the similarly rigorous discipline applied by Dr. Rugerro Santilli to the development of hadronic mechanics, [3] apply these rules and disciplines to modify superstring theory to describe torsion field spin-networks in terms of angular momentum, spin-polarity and waveform vector

³³⁶ D. Ivanenko, P. Pronin, G. Sardanashvili, "Calibrating Gravitation Theory", BGU Publ., Moscow, 1985, page 143 (in Russian).

³³⁷ *ibid.*

³³⁸ *ibid.*

³³⁹ J.A. Wheeler, "Einstein's Vision", Springer-Verlag, 1968, page 112. See also A. Dolgov, Yu. Zel'dovich, M. Sazhin, "Cosmology of the Early Universe", MGU Publ., Moscow 1988, page 200 (in Russian). See also M. Lavrent'ev et al, "On Remote Action of Stars on Resistor", Doklady AN SSSR, 1990, vol 314, no 2, page 352 (in Russian). See also A. Pugach, A. Akimov, "Astronomical Observations by N. Kozyrev's Methodology: Preliminary Results," in the press (in Russian).

³⁴⁰ H. Fox, B. Ramsay, "The Super-Luminal Velocity of Gravity Waves," Trenergy, Inc., Salt Lake City, Utah, 1998, 4 pages with references.

³⁴¹ Yu. Obukov, P. Pronin, I. Yakushin, "On the Experimental Estimations of the Axial Torsion Mass and Coupling Constants," in the press (in Russian).

³⁴² V.E. Zhvirblis, "Playing Bublik," Chemistry and Life, no 5, 1995, pages 10-15. See also V.A. Sokolova, "Investigation of the Plant's Response to the Action of Torsion Radiation," preprint no 48, Moscow: VENT, 1994, 32 pages. See also V.F. Panov, B.V. Testov, A.V. Klyuev, T.D. Afonina, "Effect of Torsion Radiation on Mammals Organism," in: Reports Theses, PERM State Medical Academy, Scientific Session of 1997, PERM, (Russia), thesis no 159.

³⁴³ V.I. Kichigin, A.V. Klyuev, S.A. Kurapov, V.F. Panov, G.V. Khaldeev, T.F. Borisova, "Torsion Fields and Electrochemical Processes at Metal-Electrolyte Interface," Journal of New Energy, vol 1, no 2, 1996, pages 27-31. See also V.P. Mayboroda, A.E. Akimov, G.A. Maximova, V.Y. Tarasenko, V.K. Shkholniy, "Influence of the Torsion Fields in Tin Melt," MNTP, VENT, pre-print no 49, Moscow: 1994, 13 pages (in Russian). See also V.P. Mayboroda, A.E. Akimov, G.A. Maximova, V.Y. Tarasenko, V.K. Shkholniy, N.G. Palaguta, G.M. Moltchanovskaya, "Structure and Properties of Copper Inherited From a Melt After Applying to it a Torsion Emission," MNTP, VENT, pre-print no 50, Moscow: 1994, 11 pages (in Russian).

³⁴⁴ A. Akimov, M. Kurik, V. Tatasenko, "Effect of Spinor (Torsion) Field on Crystallization of Micellar Structures," Biotekhnologiya, 1991, no 3, page 69 (in Russian). See also V. Zhitnikov, A. Kamenshchikov, V. Ponomarev, "Precision Gravity Measurements and New Types of Physical Interactions," Gravitational and Hypothetical Interactions, ed. By Ya. Teriletsky UDN Publ., Moscow, 1989, page 3 (in Russian). See also C.I. Cheng, P. Li, K.I. Szeto, "Microscopic Detection of Spin-Dependent Long-Range Interaction," Phys. Lett. A., 1991, no 4-5, page 235 (in Russian).

³⁴⁵ Fox et al, *ibid.*

³⁴⁶ Yu. Obukhov, P. Pronin, "Physical Effects in Theory of Gravitation With Torsion," Moscow: VINITI, 1991, page 5 (in Russian).

velocities, [4] develop predictors based on these integrations and [5] operationalize the predictions using gravimetric sensors to conduct astrological and sub-quantum investigations. Based on currently available information, we believe it is now possible to design an integration which takes advantage of a new software-based electron microscope device, to accommodate a gravimetric sensor device. This could be employed to provide experimental verification of certain sub-atomic predictions.

The following are examples of areas of experimental research which could be supported by this new class of devices:

- (1) Extra-Sensory Perception of Quarks – documented research over a period of 23 years.³⁴⁷
- (2) The Maharishi Effect – the coherent brain patterning of meditators in a group.³⁴⁸
- (3) 101 Monkey Syndrome – non-local transference of information at a distance.³⁴⁹
- (4) Secret Life of Plants – carefully documented work originally developed over a period of 31 years by Sir Jagadis Chandra Bose, Luther Burbank and others describing the effect of human consciousness on plants.³⁵⁰
- (5) Nikolas Gisin @ CERN – non-local effects at a distance, experiments with positron pairs via fiber-optic cables proving the predictions of Bell's theorem.³⁵¹

Conclusions:

The process by which matter is constantly created and destroyed at the fundamental level of sub-nuclear event horizons is described with equal facility by two fundamentally disparate sources – modern mathematics/ the physical sciences v. harmonic resonances which comprise the ancient Hindu text referred to as the Rig Veda. Both approaches suffer from the same fundamental shortcoming – they fail to provide a cogent description of the mechanism by which non-local effects occur at a distance. These issues are accommodated by the experimentally verified attributes of a 5th primary field, described as the torsion field. When this component is added to the mix of the four conventionally held fields, the Maharishi model of Consciousness becomes viable. When every aspect of the known Universe is viewed as information, and when information is made accessible throughout the Cosmos at a fundamental holographic, non-local level via the operations of the torsion field, which has been shown to facilitate the transmission of information non-locally, without regard to time or distance, then the set of rules which govern the operations of space-time [at least in this dimension] are discovered to be both simple and elegant.

The Search for Extra-Terrestrial Intelligence

The transmission of signals over vast astronomical distances via the electromagnetic field, i.e., radio, is hopelessly slow and weak. Perhaps by far the most profoundly interesting application of torsion field communications is to search for extra-terrestrial intelligence.

³⁴⁷ S.M. Phillips, "Extra-Sensory Perception of Quarks", Theosophical Publishing House, Madras, India/ London, England, 1980.

³⁴⁸ "The Maharishi Effect: Creating Coherence in World Consciousness, Results of scientific research conducted between 1974-1990", Maharishi International University Press, Fairfield, Iowa; see also E. Lazlo, "The Whispering Pond: A Personal Guide to the Emerging Vision of Science", Element Publishing, 1996, pp. 103-114.

³⁴⁹ R. Sheldrake, "Seven Experiments That Could Change the World: A Do-it Yourself Guide to Revolutionary Science", Riverhead Books, New York, 1995.

³⁵⁰ P. Thompson, C. Bird, "The Secret Life of Plants", Avon Books, New York, 1972; see also P. Yogananda, Autobiography of a Yogi, Self Realization Fellowship, 12th Edition Third Printing, 1994.

³⁵¹ Photonics Spectra Magazine, August 1997, pp 30-36. Dr. Gisin and his team borrowed fiber optic phone lines running from Geneva to two nearby towns. In Geneva, they shone photons into a potassium-niobate crystal, which split each photon into a pair of less energetic photons, traveling in different directions – one north toward Bellevue and the other southwest towards Bernex. At these two destinations, nearly seven miles apart, each photon was fed into a detector. When the attributes of one positron were altered at the point of detection by an electromagnetic field, the other positron of the pair instantaneously adjusted its characteristics to accommodate and mirror the altered spin polarity of the first. In this instance, "instantaneously" means that the highest resolution atomic clock available detected no time delay.

There can be only two possibilities – each with staggering philosophical implications: One is that we humans, living only on Planet Earth, are truly alone in the Universe. Or, there are indeed other intelligent beings out there. If so, on what logical basis, if any, can torsion field communications channels be selected so we might be able to begin conversing with them?

Mike Hanson has correlated crop circles to his physics theory of two and maybe three atom formats, transmission and reception of a lightwave, and his flying saucer engine design comprising of a triangle of three anti-gravity spheres and a dematerializer in the center.

Mike Hanson happened to see a particular episode of the TV show “Sightings”. In this episode, a single sphere-type UFO having a purple color maneuvered directly over these two guys in a pickup truck. The driver had a major cut in his left hand, which was resting on the top of the cab. After the craft passed overhead, the man noticed that there was no more pain in his hand, and after removing the bandages, realized that the injury was gone. It was cut open earlier in the day. This convinced Hanson that positive ions, format 7, inhales enough of the right types of particles when re-formatting to #3, to allow the DNA or even RNA to heal rapidly. The natural healing rate of human DNA is made possible by a very slow movement of particles from the brain and pelvis to all other points in the body.

Petition for Full Government Disclosure of ET Presence on Earth Now

Gary Vesperman posted on his website www.padrak.com/vesperman in September 2007 his compilation of 95 cases of suppression of energy inventions. While many people understandably don't find suppression of energy inventions credible, well, if it looks like a duck, flies like a duck, waddles like a duck, swims like a duck, and even quacks like a duck, maybe it's actually a duck?

Gary Vesperman has signed a petition circulating on the Internet demanding “Full government disclosure of ET presence on Earth now!” at https://secure.avaaz.org/en/petition/Full_government_disclosure_of_ET_presence_on_Earth_now/?sqwYCbB. The website does claim that there is suppression of energy inventions as well as suppression of mass media coverage, etc of UFOs, visits by extra-terrestrial aliens, etc.

Gary Vesperman has hiked in 125 national parks and wilderness areas plus dozens of state and Canadian provincial parks. He never saw any UFOs or knowingly chatted with extra-terrestrial aliens. Sir Arthur C. Clarke (*2001: A Space Odyssey*) has said during a TV interview that he would believe in UFOs if he ever got close enough to read a UFO's license plate!

DISCLAIMER: Inclusion of any invention or technology described in this compilation of space travel innovations does not in any way imply its suitability for investment of any kind. All investors contemplating any investments in these devices and technologies should first consult with a licensed financial professional. Prospective investors should exhaustively perform their own investigation of pertinent facts and allegations of facts. Investors should also ensure thorough compliance with regulations of the federal Securities and Exchange Commission and appropriate state securities divisions. For more information, see <http://www.zpenergy.com/modules.php?name=News&file=article&sid=1655>.

Carlos Aliaga Uria's Metaphor for the Emergence of Space Travel Innovations

Artist Carlos Aliaga Uria lives in Cochabamba, Bolivia with his wife Anna Hosbein. See their company's website www.ahabolivia.com. They contract with native Bolivians to ethically manufacture exquisitely artistic handicrafts and wholesale them in Europe and the USA. Carlos has suggested this photograph as a magnificent metaphor for the emergence of space travel innovations from mankind's dark hole of ignorance:

