The Rodlin Glossary

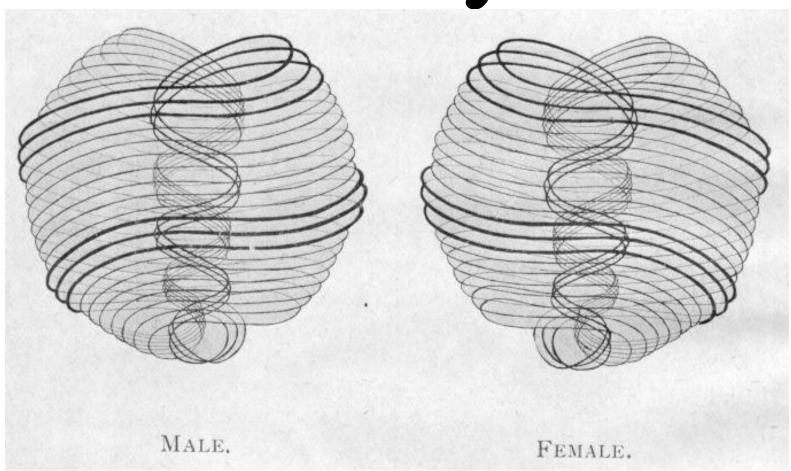


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How To Use This Book

1. The topics in this glossary are listed alphabetically

2. Each topic represents a body of knowledge in its own right. The glossary entries in this book

should be considered only as a portal to the information.

3. Each topic in the glossary is linked directly to the Rodin Torus, the Dandelion Puff Principle, and Polarized Fractal Geometry. Throughout the glossary, all glossary topics begin with upper-case letters to indicate topics which link directly. You will encounter many other related topics as you read a specific glossary topic, and these related topics are indicated by their upper-case first letters (example, see "Rodin Torus" and Dandelion Puff Principle" as examples within this paragraph).

4. Attempt to link the concepts in your own mind, until a holographic body of coherent thought exists

within your mind. Integrate the concepts. Ask questions. Seek answers.

Allow the diagrams and symbols to enter your mind and let them seek the part of your mind for which they were intended. Do not force your linear thought patterns onto the diagrams, allow the diagrams to simply exist within your consciousness. As your understanding of the Torus material grows, you will gain increased insights into the meaning of the diagrams.

5. The book may be opened randomly to any point. Linear, sequential reading of the book is not

needed. Let the topics lead you to an understanding of the material.

Record your own observations, tests your own ideas, on the worksheets provided.

The Future of the Rodin Torus

The Rodin Torus has a bright future as both an explanatory and mechanistic theory, and as a tool with virtually unlimited applications.

The Rodin Torus is a model which combines number theory and geometry with cosmogony. Many natural and galactic phenomena are unified in their association with the torus shape, and the Rodin Torus is the equivalent of a Unified Field Theory in this regard. The Rodin Torus is a theoretical model, both conceptually and literally. It's simplicity, elegance and absolutely perfect internal symmetry allows it to function as a simple theoretical system of great utility for a wide array of scientific disciplines (e.g., botany, chemistry, medicine, physics, architecture). Religious, spiritual and mystical traditions and organizations throughout the millennia have understood aspects of the Rodin Torus material, as their written symbols attest. The Dandelion Puff Principle is a unifying force, allowing all spiritual emanations to exist while being anchored at a central, unifying core.

The Rodin Torus is a tool of great utility. For example, potential use of the concepts in this glossary include:

- · Physics a new model of the universe and its phenomena
- · Medicine harmonic balancing of physical and etheric energies (chakras)
- Travel wormhole travel through space and time; standard engines
- · Power toroid coils, plasma coils, generators, etc.
- · Crystallography crystal manufacture
- Computer memory, fractal data storage systems

'Abjad Numerical Notation System

'Abjad is an Arabic word consisting of four letters of the Arabic alphabet 'A', 'B', 'J', and 'D'. The sacred 'Abjad numerical notation system is an ancient system of allocating a unique numerical value to each letter of the 28 letters of the alphabet, so that numbers may be represented by letters. Thus, words can assume both a literal and a numerical value. This notation system represents the four, metaphysical 'element states' (earth, fire, water, air), and a fifth divine state (the unseen Aetherons). Prophets and others have used the system to encode sacred names as "equations". The Symbol of Enlightenment, the Doubling Circuits and the Polarized Fractal Geometry of the Rodin Torus are derived from the mathematics of this notation system. The number and corresponding alphabet characters are:

Source: A Basic Baha'i Dictionary. Wendi Momen, ed. (1996). Biddles Ltd, Guilford and King's Lynn, London. 261 pp.

In the Arabic word, 'Baba' (the comparative case), is the name for God. The superlative case name for God is 'Abha'. In the 'Abjad numerical notation system, the following numbers are assigned to this tetra-valent name of God:

Baha (B = 2, a = 1, h = 5, a = 1)
Therefore, the
$$\Sigma$$
 (B + a + h + a) = 9
Abha Σ (A + b + h + a) = 9

Thus, God = 9. The number 9 was selected to represent the singularity, the center, the axis, the still, unmoving point of the Rodin Torus.

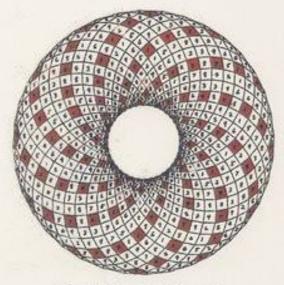
Notes:

- The alphabet forms the number sequence: 1-2-3-4-5-6-7-8-9-1-2-3-4-5-6-7-8-9-1-2-3-4-5-6-7-8-9-1. The sequence begins and ends with the number one. Therefore, the language itself represents a linear emanation with a circular aspect.
- 2. The Rodin Torus Map of Numbers can be created from this number string and it's polar opposite, as demonstrated elsewhere in this glossary.

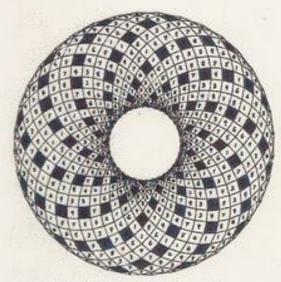
Activation Sequence

The term, 'activation sequence', refers to the sequential pattern of firing by the Aetheron Flux Monopole Emanations, and thereby the sequential pattern of number activation by the rarefying Emanations as they pass through the Skin of the Torus (the Map of Numbers). The Emanations are in phased array, activating numbers of the three Family Number Groups in succession, followed by a rest interval (a four-cycle process creating a two-cycle surge pump). The infinitely repeated sequence of activation is:

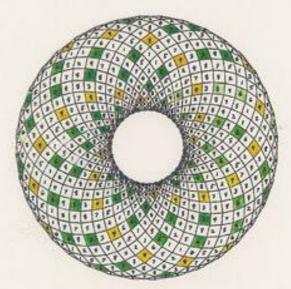
Family Number Group 1 - Family Number Group 2 - Family Number Group 3 - Rest



Family Number Group 1 (+1, +4, +7)



Family Number Group 2 (+2, +5, +8)



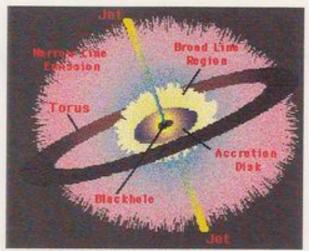
Family Number Group 3 (+3, +6, +9)

Active Galactic Nuclei

"Active Galactic Nuclei" are toroids.

Active Galactic Nuclei. "Active Galactic Nuclei" (AGN) galaxies have a galactic nucleus (center) which emits significantly more radiation than the remainder of the galaxy. "Quasars" are a familiar example: relatively bright galaxies that are very distant from Earth, up to 60 billion light years away. This type of galaxy has a massive, central black hole as its nucleus. These galactic nuclei produce enormous amounts of energy at all measurable wavelengths of the electromagnetic spectrum. Many AGN also show evidence for a huge torus, or donut, of gas around the central black hole.

The AGN Model. The black hole is surrounded by a gas-accretion disk. Surrounding the gas accretion disk and the black hole is a torus. The black hole, accretion disk, and torus are centrally embedded inside a host galaxy of stars. Gas and matter in the accretion disk swirl around the black hole. They accrete (fall) into the black hole, generating enormous compression and heat. Some energy escapes and is emitted from this region.



Model of Active Galactic Nucleus



NASA photograph of AGN galaxy, compliments of Dr. Laura Whitlock (NASA)

Aetheron Flux Monopole Emanations

"Phased-Array, Quasi Mass-Energy"

Aetheron Flux Monopole Emanations, or "Aetherons", are linear Emanations of quasi-mass/energy, traveling in a straight line from the center of mass outwards. They radiate in phased-array from the Aeth Coalescence (the central essence of God). The Aetheron Flux Monopole Emanations Rarefy the Diamond Tiles. This rarefication is spread over the Torus Skin, creating Doubling Circuits and Nested Vortices.

Aetherons cannot be seen or felt by the average human being. Yet, Aetherons are responsible for life as we know it. Aetherons are Life Force of the universe, and are responsible for all form and movement. Aetherons are the source of all magnetic fields and create "instantly reacting, high inductance, dual magnetic field flows". Aetherons generate Synchronized Electricity. They are irresistible and can penetrate anything.

The Aetheron Flux Monopole Emanations comprise the positive, transparent 'Z' axis of the Rodin Torus. This is not the traditional Z-Axis of the traditional, Euclidean geometry. The transparent Z-Axis of the Rodin Torus is actually a point source from which linear Emanations pour in all spherical directions from the center, as demonstrated by the Dandelion Puff Principle.

The Emanations activate the positive numbers of the Family Number Groups in the Map of Numbers on the Skin of the Torus. They emanate in phased-array, so that only 1/6 of the total numbers on the torus surface is activated at any one point in torus space-time (the positive members of one of the three Family Number Groups). The phased-array activation of aspects of the Torus Skin creates Negative Draft Counterspace, the phenomenon creating the Nested Vortices.

Historical synonyms for the Emanations include: tachyon, orgone, prana, essence of God, fifth force, light of eternity, animating spirit, living waters, cosmic rays, etc.

Review:

The Aetheron Flux Monopole Emanations are the reason the Torus exists.

The Emanations pierce the Skin of the Rodin Torus, creating Nested Vortices of energy flow.

The Aetheron Flux Monopole Emanations determine the phased-array activation of the three Family Number Groups.

The phased Aetheron Flux Monopole Emanations activate spatially at 180 degree angles, and by Family Number Group.

The Emanations are the "The Dandelion Puff Principle".

The emanations originate from the glottal stop impulse of Alif, the first letter of the Arabic alphabet. -

The center of mass (of an atom) is devoid of mass; it is empty space.

Aetherons are linear Emanations of energy which originate from the center of all mass.

In all the universe, only Aetherons move in truly straight line, without deflection or deviation from a straight line.

The Aetheron Emanations trigger cell regeneration.

Aetheron flow is the source of all movement. All mass warps around the Aetherons. All movement curves around the aetheron flow.

There is Aetheron emanation from the center of atomic nuclei.

The Emanations impart non-decaying spin to electrons.

Aetheron Emanations determine angular properties of molecular and physical structure.

There are three arrays of aetheron Emanations.

The three arrays are phased (activated) in thirds, by the three Family Number Groups. Aetheron Emanations are of positive Polarity.

Aetherons pierce the outer skin of the torus, activating numbers of positive Polarity for one of the three Family Number Groups. Therefore, 1/6 of the total torus surface is activated by the Emanations at any one point in time. Activation of the arrays proceeds in a sequence which repeats infinitely: positive numbers of Family Number Group 2 (1/6 of torus), followed by Family Number Groups 1 and 3. Then, there is a single rest interval to complete the firing activation sequence. 2-1-3-rest-2-1-3-rest....

Aetherons are the source of all movement.

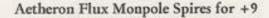
They create a Negative Draft Counterspace, which is Gravity.

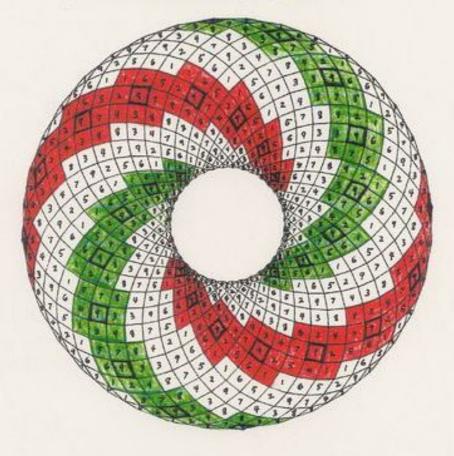
Aetheron flow and the phenomenon of Negative Draft Counterspace creates Nested Vortices on the torus. Because of the aetheron flow, these vortices are present in the gap spaces between bound matter. Aetherons deflect matter, so where the 9 is there can be no solid matter.

Aetheron Flux Monopole Emanations do not bend, and they do not decay.

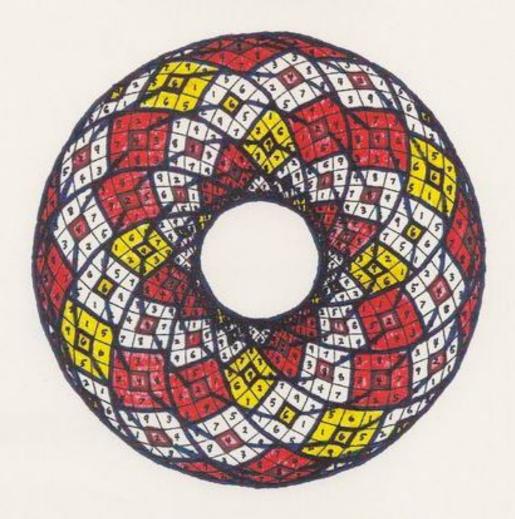
Aetheron Flux Monopole Spires

The Aetheron Flux Monopole Spires are sets of four, spiraling arms (one set for each of the three Family Number Groups) on the skin of the Rodin Torus. Of the four spires per set, two are negative and spiral inwards towards the Aeth Coalescence (compression) and two are positive, and spiral outwards from the Aeth Coalescence. Three sets of four spires are activated in phased-array by the Aetheron Flux Monopole Emanations, one for each Family Number Group. The spires are separated by 90 degrees, with spires of like charge opposing each other at 180 degrees. The spires traverse laterally across (they intersect) the Doubling Circuits. Spires alternately "flip" to reverse polarity in a binary rhythm which constitutes the compression-decompression cycle. These spires are actually composed of spiraling series of the swirling, Nested Vortices "sunspots" created by the skin-piercing, Aetheron Flux Monopole Emanations.





Aetheron Flux Monopole Family Spires



3 Family Number Groups and their Nested Vortices combine to create the Aetheron Flux Monopole Family Spires.

Sequential and repeated firing of the Family Number groups creates a counter-flow, spiraling vortex motion, as indicated by the 4 blue spirals which surround the center of the Torus, and the by the Spires (the positive-number-red or positive-number-yellow Nested Vortices from the 3 Family Number Groups, shown in their firing order). The blue spirals are logarithmic spirals which unite positive and negative polarity Nested Vortices in an unfolding from the center in a fashion that models Phyllotaxis.

Alchemy

As matter approaches the Aeth Coalescence, it is transformed by compression and heat.

Alchemy is the transformation of one thing into another. Alchemy is commonly referred to as a transformation of a baser element (lead) into a higher element (gold), a process shrouded in mystery and associated with mystics or the supernatural. Alchemy also represents spiritual transformation, as in the ascension process. Alchemy represents change. The spiritual process of alchemy involves the use of supplied energy and intent within a framework of coherent (love) emotional energy. The cosmos are a model of alchemy, as matter and energy are drawn into black holes and completely and utterly transformed. Our physical bodies (our digestive tract) are alchemical factories, transforming a variety of substances. G. I. Gurdjieff pointed out that a spiritual journey is like elevating one's "diet", so that higher and higher octaves of "food" are transformed. Transmutation is alchemy. To transmute connotes the changing of a negative factor to a more harmonious one, accomplished by directing a coherent field of energy towards the source of disharmony. Sound is alchemy: Overtones and undertones arise like a Phoenix from the ashes of a fundamental tone. Christ and Buddha were master alchemists, special men capable of literally transforming matter. Were they supernatural men...beings the likes of which we can never hope to achieve? No, Christ and Buddha represent the human potential, the potential to become master alchemists.

Alif



Alif is the first letter of the Arabic alphabet.

The Aetheron Flux Monopole Emanations originate from Alif
Alif is the Centroid Pinch Nozzle

Alif is a glottal stop alphabet character.

Alif serves as a carrier for the consonant sign of the glottal stop (Hamza).

The numerical value assigned to Alif by the 'Abjad numerical notation system = +1.

Alif, the glottal stop, occurs initially or terminally, not medially.

Alif corresponds to the Toroidal Pinch Centroid Nozzle at the Aeth Coalescence of the Rodin Torus.

The Arabic Alphabet Models the Rodin Torus

1. The Base Number Sequence is the 28-letter Arabic Alphabet. The Arabic alphabet is also a group of numbers that can be arranged in sequences and patterns. The number assignments are from an ancient system known as the 'Abjad Numerical Notation System. Please refer to the section on the 'Abjad Numerical Notation System in this glossary for more specific information.

Following are the numerical values for all of the 28 characters of the Arabic alphabet. Here the numbers are placed in an ascending sequence (not is their normal, alphabet sequence):

1-2-3-4-5-6-7-8-9-10-20-30-40-50-60-70-80-90-100-200-300-400-500-600-700-800-900-1000

The numbers > 9 in the sequence above can be reduced to their archetype value via Horizontal Addition:

1234567891234567891234567891 →...

Now, the Arabic alphabet appears as a sequence (1-2-3-4-5-6-7-8-9) repeated three times, and terminated on both ends by a single number 1. This actually represents a circle which begins and ends at the number 1.

The Introduction of Duality, Yin/Yang, Opposing Forces. One may place the alphabet sequence in contra-direction to the blue sequence shown above.

... - 1987654321987654321987654321

One direction (e.g., the forward moving alphabet) represents de-compression; the other direction (the backward moving alphabet), represents compression:

1234567891234567891234567891 → Arabic alphabet forwards

← 1987654321987654321987654321 Arabic alphabet backwards

The result is two, identical number sequences moving in reverse direction.

3. The Harmonics of Language is a Matrix of Alphabet Strings. One may arrange repeating strings of the forward moving alphabet in an Harmonic Series. The number s from adjacent strings follow a Harmonic Series (4-8-3-7-2-6-1-5-9). The Harmonic Series proceeds at right angles to the direction of flow of the forward moving and reverse moving Arabic alphabet.

Staggered sequences of the forward moving Arabic alphabet, producing an Harmonic Sequence in each column of the matrix:

Note: an identical arrangement (in reverse direction) of harmonically related, backwards moving Arabic alphabet strings can be constructed as above.

4. Number Map Assembly. Now, insert the harmonic, backwards alphabet strings <u>between</u> these harmonic, forward strings, so that the arrangements of forward and backwards moving strings is in an alternating sequence, as shown below:

```
Harmonic series for forwards alphabet (blue)

∠ Doubling Circuit (magenta)

1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 ->forward
←1 9 8 7 6 5 4 3 2 1 9 8 7 6 5 3 3 2 1 9 8 7 6 5 4 3 2 1
           1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1
  backward ←1 9 8 7 6 5 4 3 2 1 9 8 7 6 5 3 3 2 1 9 8 7 6 5 4 3 2 1
  1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 →
  ←1 9 8 7 6 5 4 3 2 1 9 8 7 6 5 3 3 2 1 9 8 7 6 5 4 3 2 1
             1\ 2\ 3\ 4\ 5\ 6\ 7\ 8\ 9\ 1\ 2\ 3\ 4\ 5\ 6\ 7\ 8\ 9\ 1\ 2\ 3\ 4\ 5\ 6\ 7\ 8\ 9\ 1 \rightarrow
            ←1 9 8 7 6 5 4 3 2 1 9 8 7 6 5 3 3 2 1 9 8 7 6 5 4 3 2 1
     1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 →
    ←1 9 8 7 6 5 4 3 2 1 9 8 7 6 5 3 3 2 1 9 8 7 6 5 4 3 2 1
               1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 →
               ←1 9 8 7 6 5 4 3 2 1 9 8 7 6 5 3 3 2 1 9 8 7 6 5 4 3 2 1
       1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 >
      ←1 9 8 7 6 5 4 3 2 1 9 8 7 6 5 3 3 2 1 9 8 7 6 5 4 3 2 1
                  1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 1 →
                ←1 9 8 7 6 5 4 3 2 1 9 8 7 6 5 3 3 2 1 9 8 7 6 5 4 3 2 1
         1 2 3 4 5 6 7 8 2 1 2 3 4 5 6 7 8 9 1 2 3 4 5 6 7 8 9 →
        ←1 9 8 7 6 5 4 3 2 1 9 8 7 6 5 3 3 2 1 9 8 7 6 5 4 3 2 1

→ Equipotential Major Groove (green)

          Harmonic series for backwards
                 alphabet (red)
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Harmonic integration of forward- and backward-moving Arabic alphabet strings. Forward moving strings (blue arrows→) and bakward moving strings (←red arrows) are interwoven in alternating fashion and also within barmonic relationship with all adjacent alphabet number strings. A Number Map identical to the Rodin Torus Map of Numbers is produced above by harmonically staggering, the linear and opposing strands of alphabet strings. This is evidence that the Arabic alphabet does indeed model the Rodin Torus. The primary circuits and axes of the Rodin Torus are all included in the number map above.

- 5. Torus Construction. Using a pair of scissors, one could cut out the number plane above, roll into a cylinder and joint the cylinder ends together (stretching and curving the plane) to make a torus.
- 6. The Arabic alphabet is a linear/circular emanation. This and other sacred languages represent Emanations of God. The Emanations impart motion, spin and momentum to matter and are responsible for sustaining and animating life and matter, respectively. The alphabet characters stand for frequency, wavelength, proportion, harmonics, overtone.

Arabic Alphabet Number Sequences

There are Number Sequences fractally *embedded* within the Arabic Alphabet. As per the Abjad Numerical Notations System and Horizontal Addition, a numerical equivalent of the Arabic alphabet is:

This simple number sequence contains Number Sequences of the Rodin Torus.

Numbers Sequences embedded within the Arabic Alphabet: (they run in both directions, only one direction depicted below)

1. The Doubling Circuits (1-2-4-8-7-5)

2. The Horizontal Axis (4-8-3-7-2-6-1-5-9)

3. The Vertical Axis (1-2-3-4-5-6-7-8-9)

4. The Invisible Z-Axis (1-3-5-7-9-2-4-6-8)

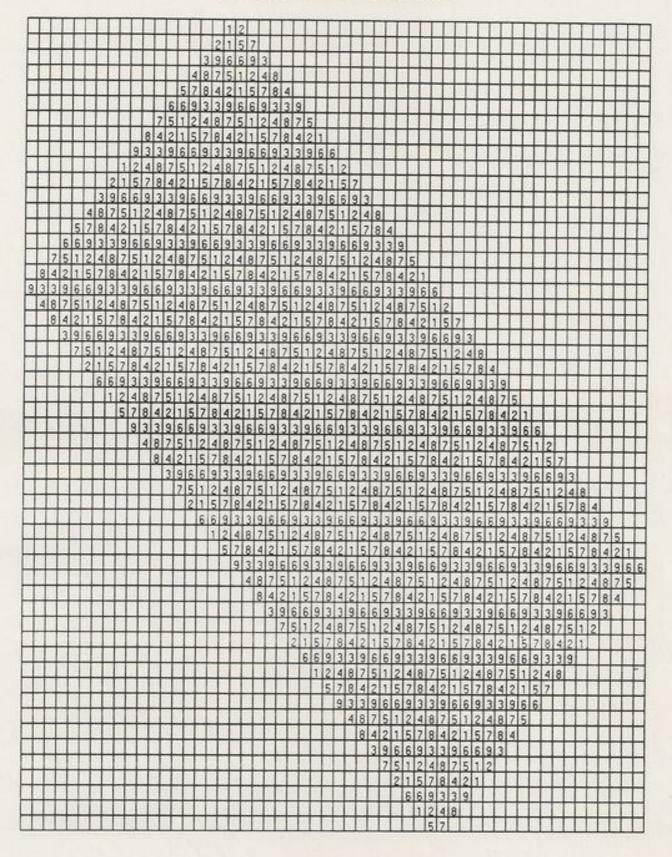
Can you find the Nexus Key?

Atoms

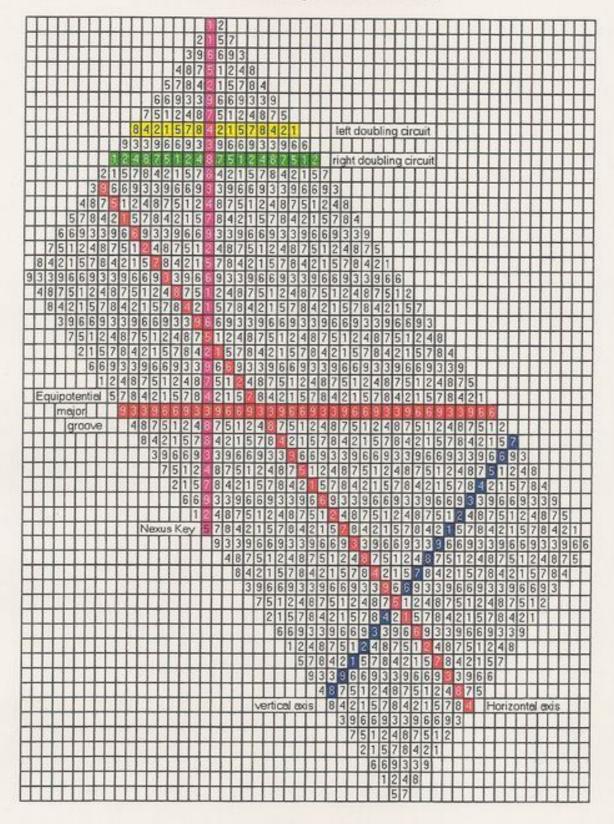
Atoms. An atom is a miniature galaxy. An atom has a contracting black hole and an expanding white hole. Electrons follow orbital pathways which follow a logarithmic spiral through the nuclear region (spiraling around the "magic circle"). Electrons do not orbit the nucleus, contrary to the widely accepted model. The orbital pathways are logarithmic spirals defined by the path of the Doubling Circuits.

Map of Numbers

The complete parallelogram of numbers for the surface of the Rodin Torus, showing the integrated Axes and Circuits of the Rodin Torus.



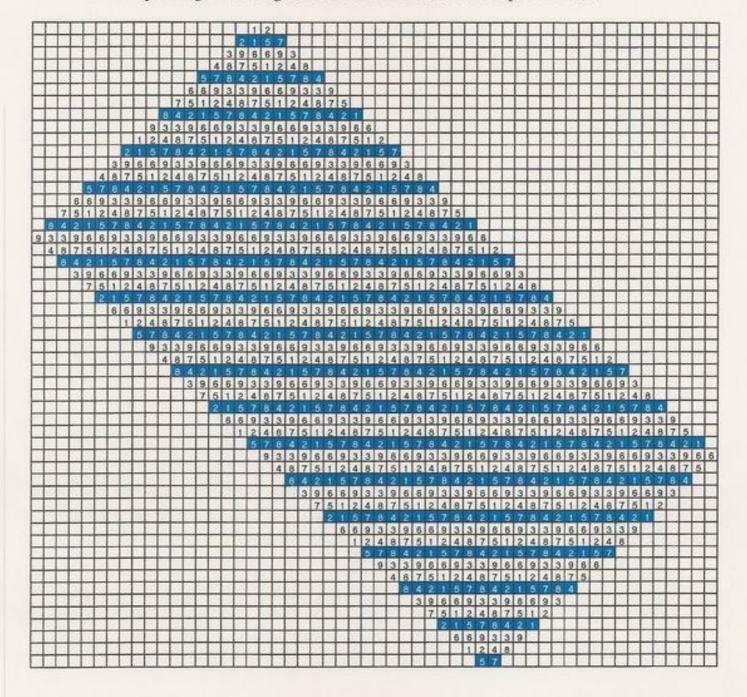
Axes and Circuits of the Rodin Torus randomly selected to show their relationships on the plane of the Number Map of the Rodin Torus.



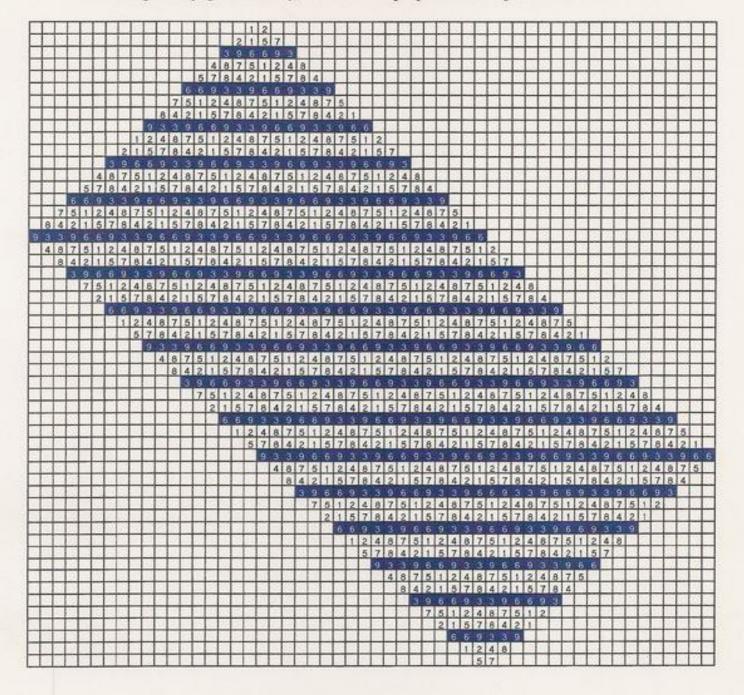
The complete Left Doubling Circuit is shaded in red on the Map of Numbers.

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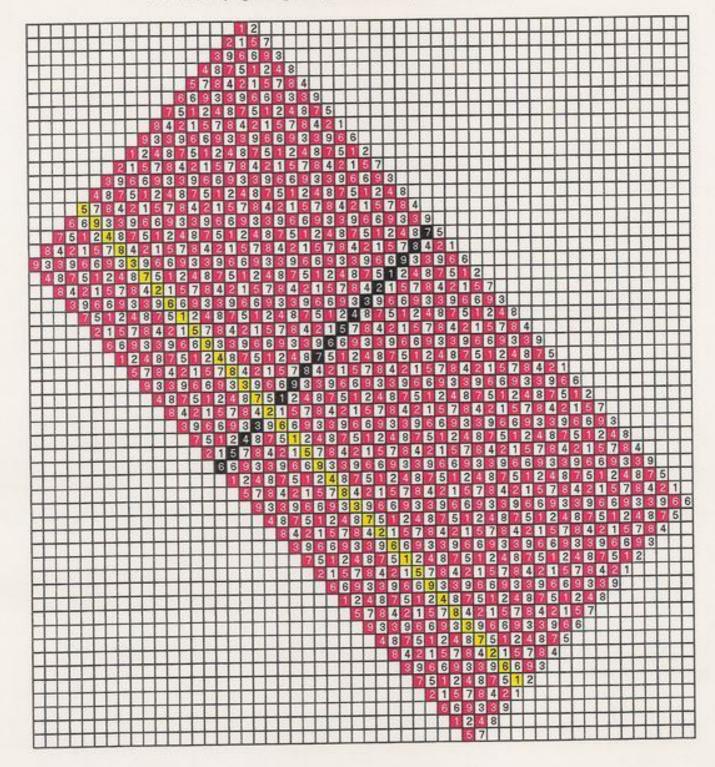
The complete Right Doubling Circuit is shaded in blue on the Map of Numbers.



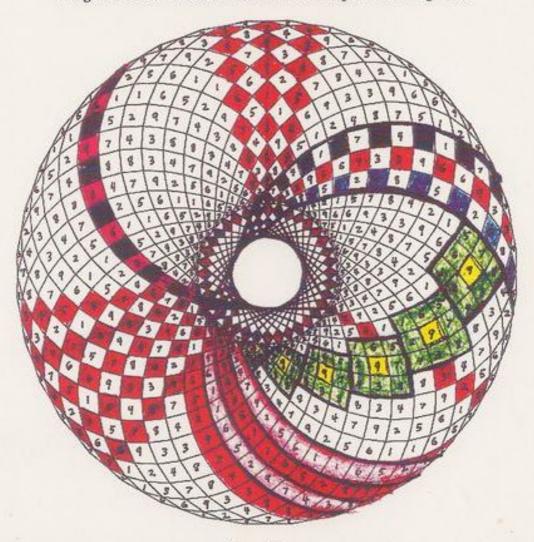
The complete Equipotential Major Groove is in purple on the Map of Numbers.



One Horizontal Axis Spire (yellow) and one Vertical Axis Spire (black) intersect at 90 degree angles. All Positive Numbers on the Number Map are shaded (negative polarity indicated by lack of shading).



Axes and Circuits of the Rodin Torus Magic Circle is inscribed within isosceles 36-pointed triangle-star



Key to diagram

Color depiction	Axis or Circuit	Number Sequence
Red diamonds	Vertical Axes	(1-2-3-4-5-6-7-8-9) (+ Polarity)
Black and Blue	Doubling Circuit	(1-2-4-8-7-5) (Polarized)
Dark Pink and Black	Equipotential Major Groove	(3-3-9-6-6-9)
Green and Yellow	Aetheron Flux Monopole Spire	Nested Vortices for (+9)
Red and Light Pink	Nexus Key	(3-4-7-9-2-5-6-1-1-6-5-2-9-7-4-3-8-8)

Axes and circuits are continuos on the Torus. They wrap around the other side. This is a Northern Hemisphere perspective and all colors and axes were selected arbitrarily for illustration.

A central, isosceles triangle was placed in the center of the Rodin Torus. The triangle was rotated 10 degrees (about the 9-axis) around the circumference of the inner Torus circle, forming a 36-pointed star with a Magic Circle inscribed within. Around the circumference of the magic circle is the sequence 4-8-3-7-2-6-1-5-9. The number sequences of the axes and circuits are drawn in towards (or ejected out from) the Magic Circle. Nothing ever enters or crosses the Magic Circle, except the 9-axis, which pierces the center of the Magic Circle.

Axes and Circuits of the Rodin Torus

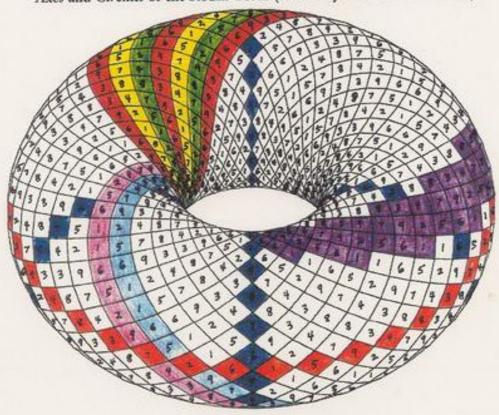
The 3 Axes of the Rodin Torus are:

- 1. Horizontal Axis (4-8-3-7-2-6-1-5-9)
- 2. Vertical Axis (1-2-3-4-5-6-7-8-9)
- 3. The Invisible Z-axis (the Aetheron Flux Monopole Emanations) (2-4-6-8-1-3-5-7-9)

The axes of the torus intersect the:

- 1. Doubling Circuits (1-2-4-8-7-5)
- 2. Equipotential Major Groove (3-3-9-6-6-)
- 3. Nexus Key (3-4-7-9-2-5-6-1-1-6-5-2-9-7-4-3-8-8)
- 4. Aetheron Flux Monopole Spires (ratcheting Nested Vortices)

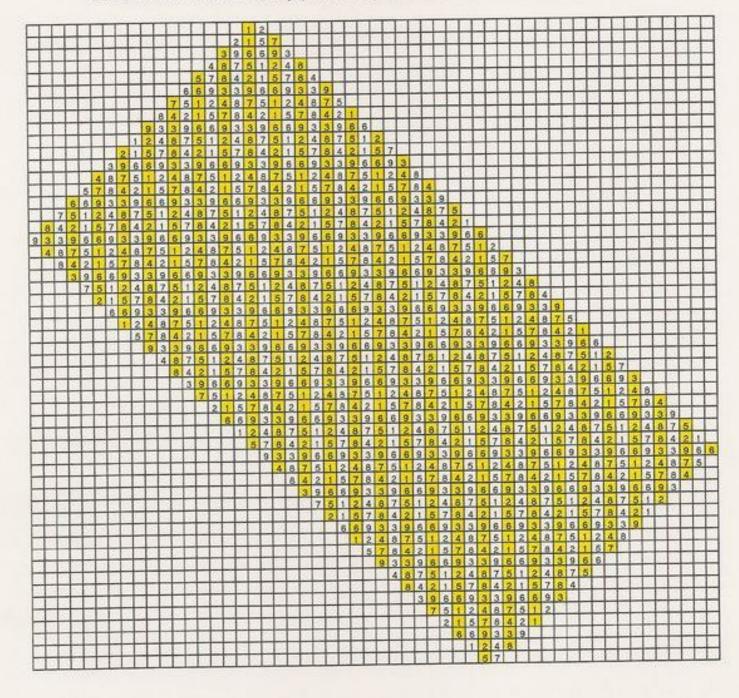
Axes and Circuits of the Rodin Torus (randomly selected and colored)



Key to diagram

Color depiction	Axis or Circuit	Number Sequence
RED	Horizontal Axis	(4-8-3-7-2-6-1-5-9)
BLUE	Vertical Axis	(1-2-3-4-5-6-7-8-9)
VELICIW	Doubling Circuit	(1-2-4-8-7-5)
GREEN	Doubling Circuit	(5-7-8-4-2-1)
ORANGE	Equipotential Major Groove	(3-3-9-6-6-9)
VIOLET	Aetheron Flux Monopole Spire	Nested Vortices for (+9)
MAGENTA	Nexus Key	(3-4-7-9-2-5-6-1-1-6-5-2-9-7-4-3-8-8)
CYAN	Nexus Key	(8-8-3-4-7-9-2-5-6-1-1-6-5-2-9-7-4-3)

The Nexus Key is shaded in yellow on the Map of Numbers. The unshaded, white columns of numbers also are the Nexus Key (number sequence is in the reverse direction).



Base Ten Numerical Counting System

The Base Ten Numerical Counting System is a universal, numerical language which describes motion, energy and mass.

There are nine conditions of the Base Ten Numerical Counting System: 1, 2, 4, 8, 7, 5 and 6, 9, 3. Zero is not a number, but is considered a placement holder. In the third-dimension, the Base Ten Numerical Counting System exhibits a hexagonally polarized, bounded infinity: i.e., a bounded, perpetual, harmonic motion represented in the Doubling Circuits and the Equipotential Axis Major Grooves. Polarization occurs when the nine conditions activate in the three, phased-array sets of Family Number Groups, a "trinary dwell setting" of the Aetheron Flux Monopole Emanations. The system is a actually a triad (there are three Family Number Groups). The three Number Groups, each consisting of three numbers, are activated sequentially by the Aetheron Flux Monopole Emanations. The Emanations are emitted from the Aeth Coalescence in phased-array (i.e., by Family Number Group). They rarefy the skin of the torus at the positions on the Number Map corresponding to the lattice positions of the respective Family Number Group being activated at that time. The Emanations produce Negative Draft Counterspace (motion in opposing directions), creating the Nested Vortices on the Skin of the Torus. All vortices are centered by a 9-axis. The 9-axis is immovable, immutable. The 9-axis centers the dualities. Energy oscillates from 3 to 6, about the 9-axis. This creates a tetrahedron-shaped field as 9 switches from + to - and the 3 and 6 move from the (+)-side of the 9-axis to the (-)- side of the 9-axis. The Doubling Circuits follow this oscillation back and forth.

Black Hole and White Hole

Black Hole and White Hole. The Aetheron Flux Monopole Emanations from the Aeth Coalescence create a Negative Draft, which helps to create a Vortex which draws light and matter back to the Aeth Coalescence. The third-dimensional universe consists of a two-cycle process. The black hole is the first cycle of the universe and the white hole is the second cycle of the universe. Rejuvenated matter, in the form of a gaseous jet-streams, is transmitted out from the bottom of the torus white hole, away from the Toroid Pinch Centroid Nozzle, fed by the opposing black hole, sucking vortex action. The black hole is male in gender and the white hole is female in gender. Black holes and white holes are accurately modeled by the Polarized Fractal Geometry of the Rodin Torus. They represent the Ying and Yang, Compression and De-compression, fusion and fission. Black and white holes exist everywhere, in every atom. Between the Black Hole and the White Hole is the Aeth Coalescence.

Black Holes and White Holes are part of the same circulating cosmic re-cycling mechanism



(Direction of Vertical Axis of Torus →)

Cone-shaped, logarithmic spirals feed matter and energy into the Black Hole, towards the Aeth Coalescence. At the Singularity (Aeth), the Monopole Emanations are created and matter and energy are ejected from the reverse side of the Torus, through the White Hole De-Compression spirals.

Cadeuceus

The Cadueceus is reflected in the Rodin Torus.

Cadeuceus. The Cadeuceus is an axis (staff) adorned with wings and two, intertwined snakes. The Cadeuceus was the magic wand carried by the Greek God Hermes (Hermes Trismegistus, and The Roman God, Mercury, and the Egyptian God, Thoth). The Cadeuceus bestowed prosperity and wealth. The Cadeuceus is the symbol of today's medical profession.



Relationship of the Caduceus and the Rodin Torus.

- 1) The axis of the Cadeuceus corresponds to the 9-axis of the Rodin Torus and the 9-axis of the Symbol of Enlightenment.
- 2) The serpents of the Cadeuceus model the:
 - a) Doubling Circuits, spiralling around the central axis of the Rodin Torus.
 - b) Duality, which is also reflected in many aspects of the Rodin Torus (Polar Pairs, ADD MORE HERE).
 - c) Vortex action.
 - d) Oscialltion, waves.
 - e) harmony, symmetry
- 3) The wings of the Cadeceus indicate its use as a travelling device, which is a potential use of the structure and function of the Rodin Torus.

Symbolism of the Cadeuceus. 1. Symbolism of the Serpents: a) duality (yin-yang, positive-negative, active-passive, compression-decompression, magnetism-radiation); b) Horus and Osiris; c) Eagle and Lion. 2. Symbolism of the Wings: Flight, Ascension, Liberation, Speed. 3. Overall symbolism of the Cadeucus: a) Microcosm-Macrocosm; b) Alchemy; c) Earth-Heaven, d) Physical-Spiritual.

Chakras

"...wheel-like vortices which exist in the surface of the etheric double of man."

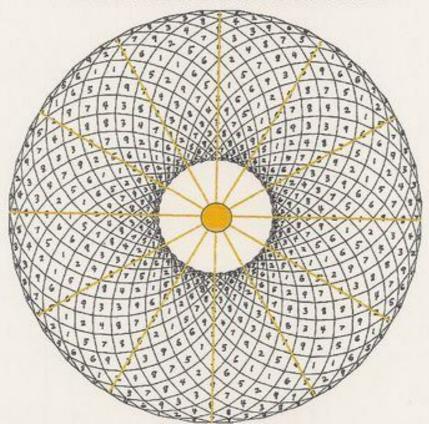
C. W. Leadbeater, The Chakras

"Quite literally, a Chakra is a Torus, and the Rodin Torus is the first system to model the Chakra vortex action with numbers and geometry."

Scot Nelson

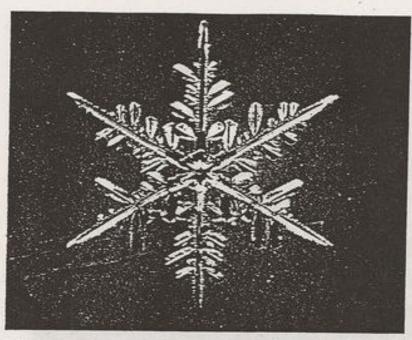
The word, "Chakra", is the Sanskrit word meaning wheel. These wheels are force-centers in human beings, energy-accumulating and -distributing devices that handle quite specific types and wavelengths of energy. They are the engines of biological life, and quite literally our connection to the universe. A Chakra is a wheel of light. As the wheel turns, a spiraling vortex into and out of the human body is created. The energy passing through the Chakra and then into and through the human body is in constant motion. The Buddhist and Hindu traditions are in close agreement as to the exact nature and location of the 7 primary Chakras, Hindu names (from base to crown): Muladhara, Svadisthana, Manipura, Anahata, Vishuddi, Anja, Saharara. Chakra points are located along the spine. Each Chakra governs different aspects of physiology and consciousness, serving as lenses which focus certain wavelengths of cosmic energy. Future health-care will include Chakra balancing and tuning with a Torus.

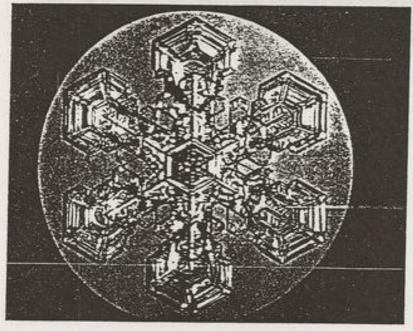
The Rodin Torus is the Twelve-Petaled Heart Chakra



The Heart Chakra has a Fractal Skin

All Chakras are created from a basic Skin of Triangle Tiles, which divide or multiply and combine into Diamonds, Hexagons, Squares or other Triangles creating the specific spin and emanation geometry for each specific Chakra. The hexagonal symmetry of snowflakes is created from the Aetheron Flux Monopole Spires polarization.





Photomicrographs of typical natural snow crystals, showing almost perfect hexagonal symmetry in their habit. The crystals are, in each case, approximately 2 mm in diameter Magono & Lee, 1966).

Chaos Theory and the Torus

Chaos Theory. Chaos theory is a branch of mathematics that seeks to explain the behavior of systems that lose their predictability. Chaos is the existence of complex, intricate fractal behavior in a system. Chaos occurs when the predictability of a system breaks down. Chaos represents predictability at one scale, an unpredictability at another scale. Chaos theory became important when humans realized that systems governed by apparently immutable physical laws can undergo transitions to highly irregular forms of behavior.

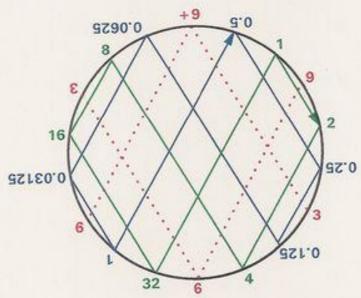
The idea underlying Chaos theory is that the universe is essentially chaotic, and that order is manifested from the underlying chaos through the action of "Attractors". An attractor is a place where the motion of phase-space trajectories of an equation (as seen in phase-space) settle down and become fixed.

There are four basic types of attractors identified by Chaos theory:

- 1. Point attractors
- 2. Circle attractors
- 3. Torus attractors
- 4. Strange attractors

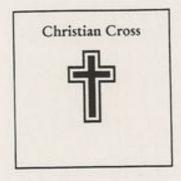
Attractor type is a function of phase-space and Period Doubling.

A Torus Attractor represented by the Symbol of Enlightenment



The Symbol of Enlightenment is shown in double, inverted image. The Doubling Circuits are indicated by the green arrow lines. The Halving Circuit is indicated by the blue arrow lines. These two circuits move in the same direction, as do the Nested Vortices. The Equipotential Major Groove are indicated by the red dotted lines.

Note the central diamond (half green and half blue). The apices of the central diamond are the points of oscillation which comprise the Torus Attractor. These are the two Primal Points of Unity for the two Symbols of Enlightenment which are presented in this diagram.



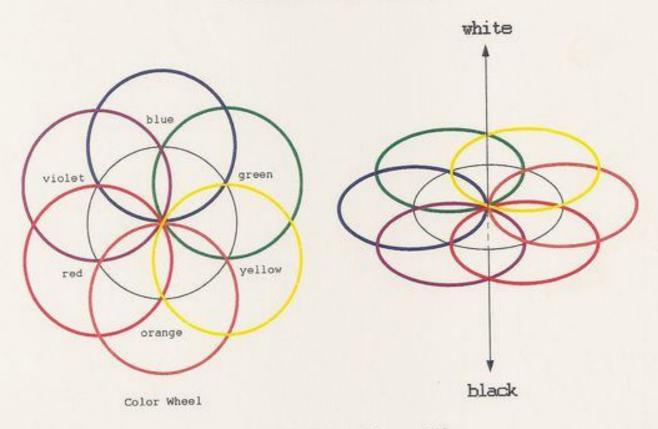
The Christian Cross is a model of the Rodin Torus.

- The vertical and horizontal bars of the Cross correspond the Vertical and Horizontal Axes of the Rodin Torus. And, the number sequences of the vertical (1-2-3-4-5-6-7-8-9 or 9-8-7-6-5-4-3-2-1) and horizontal (4-8-3-7-2-6-1-5-9 or 9-5-1-6-2-7-3-8-4) represent the minimum amount of information needed to construct the Rodin Torus Map of Numbers.
- The horizontal bar of the Cross is the axis of spin for the two tetrahedron-shaped energy fields which
 comprise the Cosmic Eggbeater. The vertical bar is the axis of the descending spiral vortex which is
 created by spinning on the perpendicular axis by the tetrahedron eggbeaters. The Cross represents
 bringing down something from a high potential (dimension) into a lower potential (dimension) and
 back again...the cycle of birth, rebirth and ascension.
- The vertical bar of the Cross represents the immutable 9-axis, the unchanging axis that bend and curves the direction of all matter and energy. The horizontal bar of the Cross represents a balanced duality which oscillates about the 9-axis.
- The vertical bar of the Cross is an Aetheron Flux Monopole Emanation and the horizontal bar is a Nested Vortex on the Skin of the Rodin Torus.
- The Cross and the Rodin Torus represents Alchemy, a spiritual transformation.
- The horizontal bar of the cross intersects the vertical axis of the Cross at a position which is higher
 than the middle of the vertical axis of the Cross (the horizontal bar is off-center). This off-center aspect
 represents the possibility of attaining higher levels (e.g., consciousness) by traveling the path of the
 vertical axis, upwards.

Color

The Aetheron Flux Monopole Emanations create all hexagonal polarization patterns in nature.

Color in light is polarized hexagonally



The Color Wheel is also a Flower of Life

The unseen, eternal Aetheron Flux Monopole Emanations have a hexagonal rotation-emission cycle from the Aeth Coalescence. This is a function of the Trinary Dwell Setting firing action at the Toroidal Pinch Centroid Nozzle. Note how the colors spin around the 9-axis.

Complex Planes and Fermat's Last Theorem

Periodic functions, such as sines and cosines, were studied by Poincare on a "complex plane" rather than on a "number line" as did Fourier. Poincare examined the complex plane, which contains real numbers on the horizontal axis and imaginary numbers on a vertical axis. This allowed Poincare to model perdiodicity along multiple axes, and to place elements of the matrix into algebraic groups with infinitely many possible variations. Poincare extended this concept of periodic functions on a complex plane to complicated functions called modular forms.

Goro Shimura's conjecture dealt with the folding of a complex plane: "If we 'fold' the complex plane as a <u>Torus</u>, then this surface will hold all the solutions to elliptic equations over the rational numbers, these in turn arising from the equations of Diophantus."

What proved to be important later was that if a solution to Fermat's equation $(x^n + y^n = z^n)$ existed, then the solution would have to lie on that <u>Torus</u>.

The Cosmic Eggbeater

The Cosmic Eggbeater is also known as "The Unit". This Unit is the unseen, geometric mechanism which creates the Torus Field, The Aetheron Flux Monopole Emanations, Polarity, the Black Hole/White Hole vortexes, virtually every aspect of the Rodin Torus can be explained in terms of the Cosmic Eggbeater Unit. The Cosmic Eggbeater is at the center of the Torus Field. The Cosmic Eggbeater is also the Mer-ka-ba, and is an important branch of study in the vast cosmic science of the Mer-ka-ba. The Cosmic Eggbeater differs from the Mer-ka-ba science taught by Drunvalo Melchizedek. The essential difference is in that the Eggbeater is a Melchizedek Mer-ka-bah lying on its side, creating a vortex which draws surrounding love energy into a central singularity.

The eggbeater-effect. The eggbeater is a comprised of two, interpenetrating fields of energy which themselves are spinning at the speed of light, and in opposing directions. The fields of energy take the shape of Tetrahedrons (one is depicted below).



Tetrahedron-shaped field of energy, spins on axis at speed of light and intersects with another tetrahedron of opposing polarity to create the eggbeater effect

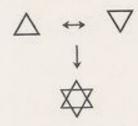
The axis of spin is the straight line dropped down from the apex of the tetrahedron to a 90 degree union with the base (it's center) of the tetrahedron.

Two Energy fields. The tetrahedrons are not solid, they are actually tetrahedron-shaped energy fields. The energy fields are of opposite polarity (e.g., male and female, positive and negative, yin and yang). Each energy field oscillates at specific harmonic frequency (light or sound) which can fluctuate and change. The energy fields can assume any wavelength and are always harmonious. The fields of energy may be sound or light...any type of energy possible.

Axis of Spin. The main axis of the tetrahedron is a line dropped from the apex down to the center of the triangular base, forming a right angle. This is the primary axis of spin. In relation to this primary axis, the two tetrahedrons appear as mirror images of each other, with apices pointing in opposing directions. Placed base-to-base, they share the same axis of spin.

Tetrahedron Spin. Each tetrahedron spins at the speed of light upon its primary axis. They spin in opposite directions from each other (e.g., clockwise vs. counter-clockwise).

Two Interpenetrating Fields. The two field of energy interpenetrate to form a Star Tetrahedron (a three-dimensional Star of David). (Note: the triangle symbols below represent tetrahedrons).



Locked Fields Spin on Perpendicular Axis (see diagram below).

 The tetrahedron-shaped energy fields spin at the speed of light. The tetrahedron-shaped energy fields spin in opposing directions (e.g., one clockwise, one counter-clockwise) in relation to each other.

2. The tetrahedrons interpentrate, joining to make a single, operative Unit.

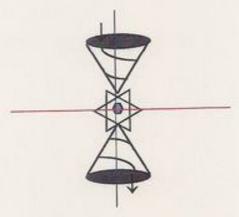
3. The tetrahedron-shaped energy fields share the same primary axis of spin, and it is called the First 9-axis (shown in red below).

4. The tetrahedrons share a common center point.

5. Their union creates the Aeth Coalescence.

6. The apex of each tetrahedron-shaped field of energy is at 180 degrees opposition with the other tetrahedron, (pointed in opposite directions), one on the left and one right (in the diagram below). This is essentially a Mer-ka-ba which is lying on its side.

7. The entire Unit (the two spinning, interlocked tetrahedrons) begins to spin, also at the speed of light along the axis which is perpendicular to the primary axis. This is referred to as the Second 9-axis (shown in blue below).



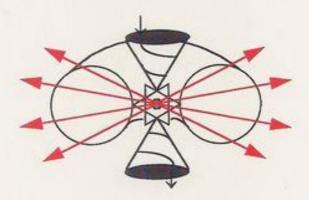
The Tetrahedrons spin on the red 9-axis while The Unit spins on the blue 9-axis. This creates the Rodin Torus Field.

Vortex creation. Above, the Star Tetrahedron Unit is depicted as lying "on it's side", with the primary axis of spin pointing along the horizontal (→). The spinning motion of the two tetrahedrons creates the "Cosmic Eggbeater", and along with the spinning motion of the Unit itself, create two vortices. Note that the vortices do not enter and exit the Unit via the Primary axis of spin, but enter and exit along the perpendicular axis.

Black Hole. One vortex spirals down from above (compression cycle) into the black hole

White Hole. One vortex spirals out of the bottom (the de-compression cycle). This eggbeater effect attracts energy from the surrounding field of electrical potential and Cosmic Energy.

The two vortices meet at the center of the Unit.



The Cosmic Eggbeater creates the Vortexes and Aetheron Flux Monopole Emanations. Cross-section diagram of the Rodin Torus, similar to a doughnut which has been cut in half and is lying on a table. The Unit is shown in the central hole of the Torus...the Star move matter and energy into and out of the Aeth Coalescence. The power created by the spinning is tremendous. The vortex power is great enough to create a singularity. From the singularity, rarefied energy known as Aetheron Flux Monopole Emanations are created (red arrows \rightarrow). The emanations created movement and flow and harmony in the Torus Field as they rarefy matter that is circulating through the vortexes of the Torus Field. The black arrows show the general direction of movement of matter and energy into and out of the Torus. The black, curving lines on the surface of each cone represents the spiraling path (defined by the Harmonics of Vortex Motion). The Emanations are defined by the precise angles of the tetrahedrons.

Notes of significance about the Cosmic Eggbeater (The Unit).

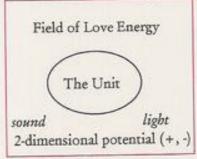
1. The Unit is at the center of all organized matter, from atoms to molecules to cells to humans planets to galaxies.

2. Therefore, there are millions of such units within a single human being, but only one primary Unit

which integrates all aspects into the single human being's field.

The Cosmic Eggbeater is the reason that life exists, because the Cosmic Eggbeater creates a coherent, harmonic field of energy about which life can crystallize from the aether, the void.

4. The Unit creates the geometric, energy-grid environment needed for the Transformation of Elements, and creates the bonding affinities among elements at various compression levels. Absolutely, the key to the Cosmic Eggbeater is the following: Matter can only exist if the energy drawn in by the Eggbeaters Vortex action is love energy. Only love energy has the non-decaying coherence and harmonics necessary to sustain life and all matter. Past societies have failed to understand that nothing of permanence can be created with this technology without s surrounding field of love energy.



5. Other types of energy also exist in the field of love energy. The type a wavelength of the energy existing in the field surrounding the Unit is also drawn in by Vortex Action in to the Aeth Coalescence. There are an infinite number of wavelengths, therefore, there are an infinite number of holographic, harmonic Torus energy filed which can exist.

6. The entire Unit is vibrating at and emitting a Fundamental Tone. The Fundamental tone is a

product of the union of the two, spinning Tetrahedron tone (i.e., frequencies).

7. The emission of this Fundamental Tone creates a series of harmonic overtones and undertones. These tones define the harmonic spiral path of matter through the circulating Torus system.

8. The two tetrahedrons can ratchet with respect to one another, forming various geometric shapes

when viewed along the axes of spin.

 The two tetrahedrons, being of opposing polarities, create Positive (expanding) and Negative (contracting) Emanations. The Positive Emanations impart spin and momentum to matter, the

Negative Emanations create Gravity.

10. The axis of spin (the Second 9-axis) for the Unit can move and pulse through space, creating more spatially complex forms than the Rodin Torus. For example, DNA is created and sustained by a pulsing movement of the Unit through space, is essence a "link-sausage" molecule comprised of linked Rodin Tori. This axis may shift while the tetrahedron-shaped energy fields are themselves spinning and ratcheting through space, changing their angular harmonics.

11. The Unit can undergo oscillation, or repeated back and forth motion, and rocking movements which may be infinite in their complexity, creating patterns which are inscribed on the inner surface of the surrounding sphere of spin. The concept is that of a gyroscopic, Star Tetrahedron. For the Rodin Torus, the energy field is created by the spin of the Unit in a bounded region (a bounded plane). The

Unit is analogous to a Kaleidoscope.

12. The Unit is a 3-dimensional field of energy which exists within a field of two-dimensional potential. the 4-dimension draws upon the 3rd dimension in a similar manner, and so on. Third dimensional life is created by the union of potentials with this Eggbeater mehanism. God keeps the eggbeaters going.

Dandelion Puff Principle

The Dandelion Puff Principle is the principle that a simple dandelion flower (in seed stage) models the linear emanations which emerge from the center of mass and provide the energy "skeleton" of matter. The seeds are in a spherical or torus-shaped array, like spokes radiating out in all directions in a three-dimensional wheel of life. This principle is a fractal principle, and is the underlying mechanism for the existence of organized matter. The Dandelion Puff Principle is evidence that order is being drawn from chaos along strict geometric lines of force.



Aetheron Flux Monopole Emanations of the Rodin Torus are like a simple dandelion flower

Creation proceeds from a central point and radiates out

Crystal Structure

The Rodin Torus models the 7 Crystal Systems.

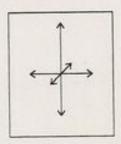
A perfect crystal is bounded or defined by plane faces. The planes meet at specific angles for each kind of material. Sometimes two distinct minerals can have the same chemical composition whereas their basic properties are quite different, owing to their different crystalline structure. Crystal structure affects mineral properties more than their chemical nature, in fact. For example, diamond (carbon, cubic) and graphite (carbon, hexagonal structure) are composed of carbon and Calcite (trigonal structure) and aragonite (orthorhombic structure) are both forms of calcium carbonate.

Crystal systems. Most minerals are crystalline. All crystal forms can be assigned to 7 Crystal Systems (cubic, tetragonal, hexagonal, trigonal, orthorhombic, monoclinic, and triclinic).

Crystal forms for the 7 Crystal Systems:

System	Crystal Forms
Cubic	Cube, Octahedron, Dodecahedrons, Icositetrahedron
Tetragonal	Dipyramid, 4-sided Prisms and pyramids, 8-sided pyramid
Hexagonal	Hexagonal prisms, Hexagonal dipyramid, 12-sided pyramids
Trigonal	Dipyramids, Rhombohedra, Scalenohedra, 3-sided pyramids
Rhombic	Prism, Dipyramid, Prism with pinacoid
Monoclinic	3 pinacoids, 2 pinacoids with 2 prisms, Clinopinacoid with 2 prisms
Triclinic	3 pinacoids, 6 pinacoids, 4 pinacoids

The 7 Crystal Systems are differentiated according to several factors: a) the relative length of the axes of the crystals; b) the angles at which the axes intersect; and c) the symmetry.



3 Axes define a Crystal Form

The Rodin Torus is essentially a Hexagonal System.

However, by virtue of the fact that the torus is a Fractal system,
all forms in each of the 7 Crystal Systems are coded within the Rodin Torus.

Dagaz

The Dagaz is a simple model of the Doubling Circuits of the Rodin Torus.

Dagaz is a letter from the ancient Runic Alphabet, which is thought to have evolved from ancient rock carvings such as the Hallristingnor Rock Carvings.

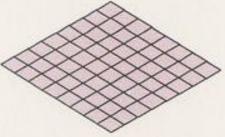


Dagaz translates as "day". Ancient peoples counted a day from evening to evening. Therefore, Dagaz refers to a period of darkness and light, an infinitely repeating duality, or interchange of opposing forces. This interplay of dualities is the essential feature of life and creation in the Third Dimension. This Runic Symbol is one of paradox, of balancing. Dagaz can also mean growth (spiritual, physical growth). Dagaz is equivalent to the Ying-Yang symbol of the Chinese, and to the Infinity Symbol (lazy 8). Dagaz represents the Doubling Circuits of the Rodin Torus.

As mentioned, the symbol, Dagaz, evolved from rock carvings in which the symbol was written as standing on its end, upright. In this configuration, the symbol represents two, conical vortexes which meet at a central point (the Primal Point of Unity).

Diamond Tiles

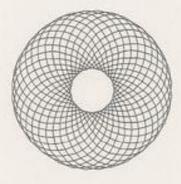
Diamond tiles are one of three regular polygons which will tile a plane evenly and completely, without any gaps or imperfections. A Diamond Tile consists of two, Isosceles Triangle tiles. In tiling space, a diamond is essentially equivalent to a Square. The Original Rodin Torus (see: Aerodynamics) is a Diamond-Tiled Torus.



A section of Diamond-Tiled Torus Skin.

The perfect 60-60-60 degree angles of the Isosceles Triangles are distorted as the surface is stretched out and away from the Aeth Coalescence.

A plane of diamonds rolled into a tube and ends joined to form a tube torus.

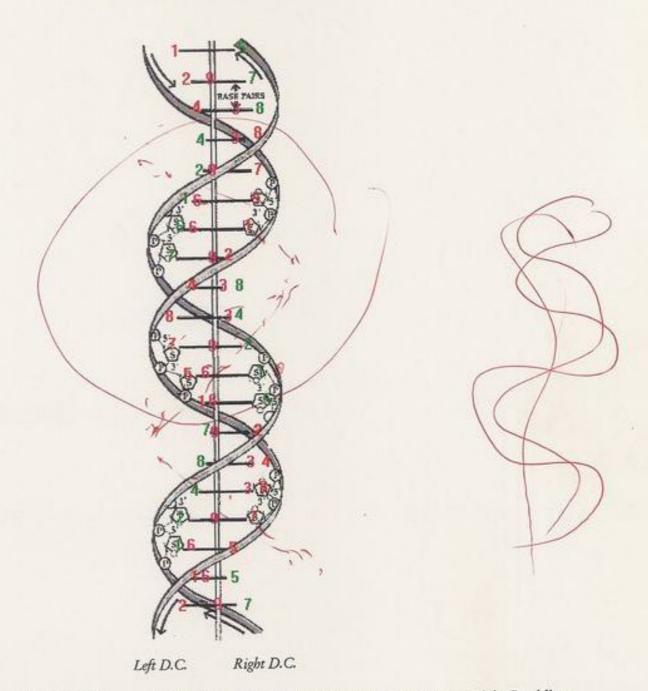


Diamond tiles become long and thin as they approach the Aeth Coalescence

Notes:

- 1. Two triangles equals one diamond.
- 16 small diamonds can fit inside one larger diamond. This fractal nature is applied to a full understanding of the periodic Table of the Elements.
- 3. Diamonds represent four-fold polarization (two dualities).
- 4. Diamonds are the essence of hexagons.

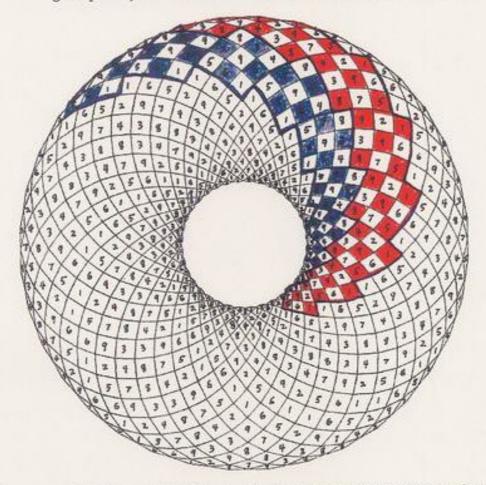
A Model of DNA the Doubling Circuits and the 9-Axis



Nelson Model of DNA (Summary). DNA is a double helix comprised of the Left and Right Doubling Circuits (red and green numbers), the 9-axis (violet number 9's) and the oscillating 3's and 6's (violet numbers). The 3's and 6's oscillate about the stationary 9-axis, creating a sinusoidal morphogenic field which allows bonding to occur between numbers (purines and pyrimidines) within the morphogenic field. The 9-axis spins along the axis, creating a whirling spiral staircase effect. Note that the two strands of DNA move in opposite directions, just like the Doubling Circuits of the Rodin Torus. The number in the middle (3, 6 or 9) is always the sum of the two bonded numbers. The swinging 3 and 6 pattern creates a spiraling wave around the 9-axis, and the Doubling Circuits follow the wave as it swings around the 9-axis.

1-2-4-8-7-5 is a Six-Numbered Sequence creating sixfold polarity

6-number sections of the Torus Doubling Circuits are highlighted below (3 red, 3 blue) demonstrating the hexagonal polarity of the Rodin Torus (there are 6 of these arm sectors).



You can see the adjacent Nested Vortices (one red, obe blue) in the diagram above, with a number 9 in the center of the Nested Vortices. Two adjacent Nested Vorteces create a complete, 6-number Doubling Sequence.

Doubling

Doubling (multiplying by the number 2) is a common process which occurs during the creation, growth and development of all matter in the 3rd dimension. For example, doubling is expressed in plant and animal growth (chromosomes, cells), mineral and crystal development, and in the harmonics of sound and light. Many biological phenomena have doubling sequences embedded in their growth and development. (for example, mitotic cell division).

Number Doubling (Left) and Doubling Sequence (Right)

The number is on the left, horizontal addition result is on the right.

No.	Ad	ldend
1	-	1
2	-	2
4	-	4
8	-	8
16	-	7
32	-	5
64	-	1
128		2
256	-	4
512	-	8
1,024	-	7
2,048	-	5
4,096	-	1
8,192	-	2
16,384	-	4
32,768	-	8
65,536	-	7
131,072	-	5
262,144	-	1
524,288	-	2
1,048,576	**	4
2,097,152		8
4,194,304	-	7
8,388,608	-	5
16,777,216	-	1
33,554,432	-	2
67,108,864	-	4
134,217,728	-	8
268,435,456	-	7
536,870,912	-	5
1,073,741,824	-	1
2,147,483,648	-	2
4,294,967,296	-	4
8,589,934,592	-	8

The Doubling Circuit numbers Encode the Numerical Counting System

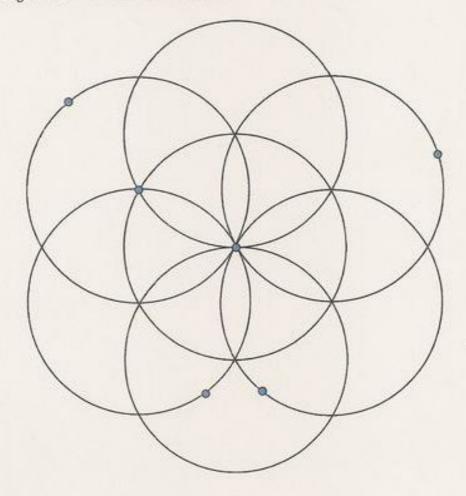
All of the counting numbers can be created by adding together the integers of the numbers that comprise the Doubling Circuits. Therefore, the 6 numbers of the Doubling Circuit (1-2-4-8-7-5) encode the complete numerical counting system.

Doubling Circuit: [1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024...]

Sum these #'s from Doubling Circuit	Their sum equals the Counting Numbers
# 3 Hom Dodbing Circuit	1
2	2
1,2	3
4	4
1,4	5
2,4	6
1,2,4	7
8	8
1,8	9
2,8	10
1,2,8	11
4,8	12
1,4,8	13
2,4,8	14
1,2,4,8	15
16	15 16
1,16	17
2,16	18
1,2,16	19
4,16	20 21
1,4,16	21
2,4,16	22 23 24
1,2,4,16	23
8,16	24
1,8,16	25
2,8,16	26
1,2,8,16	27
4,8,16	28 29
1,4,8,16	29
2,4,8,16	30 31
1,2,4,8,16	
32	32

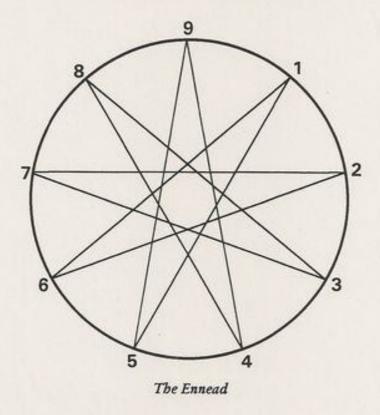
Electrons

Electrons do not orbit in elliptical shells about a nucleus. Electrons floww a logarithmic spiral, tunneling through the center of the atomic nucleus.



Ennead

The Ennead is a 9-pointed star. The Ennead symbolizes completion, harmony, perfection. The Ennead represents the harmonics of the Horizontal Axis of the Rodin Torus, for when a fundamental tone and the first 8 overtones are plotted onto a circle, they form an *Ennead*.



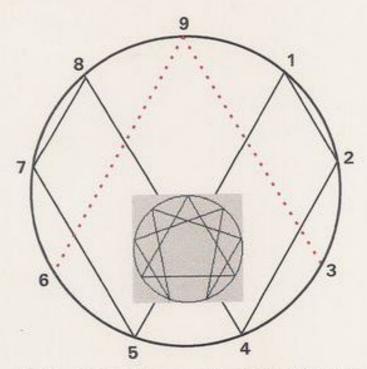
The Enneagram

The Enneagram is an ancient and sacred, geometric symbol (often associated with numbers), consisting of an Isosceles Triangles overlaid by a diagonal configuration of interlocking lines. The triangle in the Enneagram is equivalent to the 9-axis and the oscillating 3-6 (see the Symbol of Enlightenment). The diagonal configuration of interlocking lines is equivalent precisely to the Doubling Circuits of the Rodin Torus.

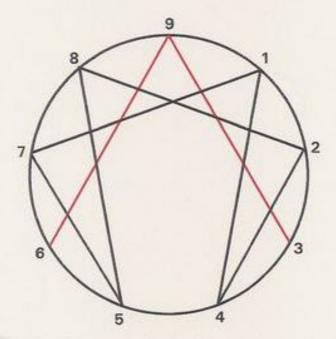


The Enneagram is virtually equivalent to each of the following:

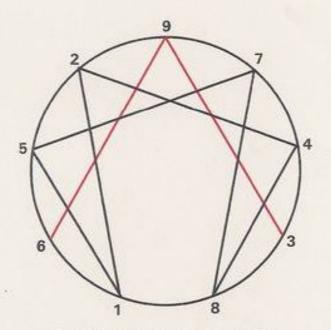
- a) The Symbol of Enlightenment
- b) The Nexus Key
- c) Dividing by Seven
- d) The Doubling Circuits



The Symbol of Enlightenment Encodes the Enneagram The Circle Encloses All



The Enneagram is Dividing By Seven The Doubling Circuit is Embedded Within



The Enneagram is the Nexus Key
The Doubling Circuit is Embedded Within

Fibonacci Families

The Fibonacci sequence is toroid.

There are five families of Fibonacci processes possible:

a) (1,2)

b) (1,3)

c) (1,4) These are the five Fibonacci Families.

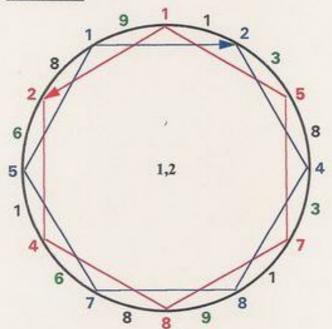
d) (3,3)

e) (9,9)

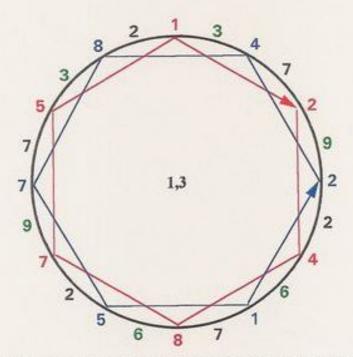
Fibonacci Families

Using horizontal addition, the 24-digit repeating number sequence for the Fibonacci (1,2) process is:

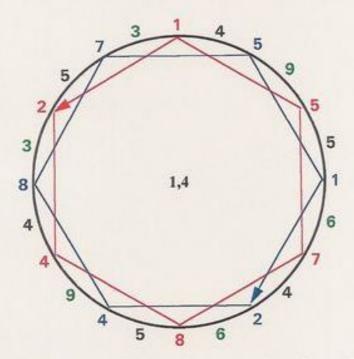
When the numbers are plotted at 15-degree intervals along the circumference of a circle, patterns appear which correspond to the Rodin Torus:



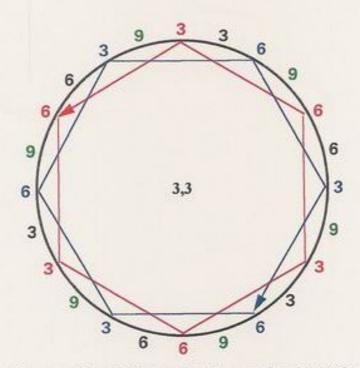
Fibonacci (1,2) process. The repeating, 24-digit number sequence from the (1,2) Fibonacci process plotted at 15-degree intervals along the circumference of a circle, starting at 0 degrees (top of circle). This Fibonacci process is hexagonally polarized by the Doubling Circuits and the Equipotential Major Groove. The two Doubling Circuit number sequences (1-2-4-8-7-5) appear in red and blue (lines and numbers), and they move in opposing directions (as indicated by the arrows). The Equipotential Major Groove number sequence (3-3-9-6-6-9) is shown in green color. This process is controlled by the Polar Number Pair [8,1].



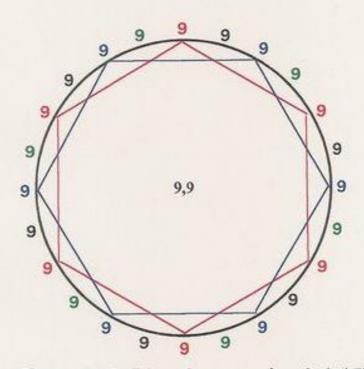
Fibonacci (1,3) process. The repeating, 24-digit number sequence from the (1,3) Fibonacci process plotted at 15-degree intervals along the circumference of a circle. This Fibonacci process is hexagonally polarized by the Doubling Circuits and the Equipotential Major Groove. The two Doubling Circuit number sequences (1-2-4-8-7-5) appear in red and blue (lines and numbers), and they move in opposing directions (as indicated by the arrows). The Equipotential Major Groove number sequence (3-3-9-6-6-9) is shown in green color. This process is controlled by the Polar Number Pair [7,2].



Fibonacci (1,4) process. The repeating, 24-digit number sequence from the (1,4) Fibonacci process plotted at 15-degree intervals along the circumference of a circle. This Fibonacci process is hexagonally polarized by the Doubling Circuits and the Equipotential Major Groove. The two Doubling Circuit number sequences (1-2-4-8-7-5) appear in red and blue (lines and numbers), and they move in opposing directions (as indicated by the arrows). The Equipotential Major Groove number sequence (3-3-9-6-6-9) is shown in green color. This process is controlled by the Polar Number Pair [5,4].



Fibonacci (3,3) process. The repeating, 24-digit number sequence from the (3,3) Fibonacci process plotted at 15-degree intervals along the circumference of a circle. This process is controlled by the Polar Number Pair [3,6].



Fibonacci (9,9) process. The repeating, 24-digit number sequence from the (3,3) Fibonacci process plotted at 15-degree intervals along the circumference of a circle. This process is controlled by the number 9.

(1,3) Fibonnaci Sequence

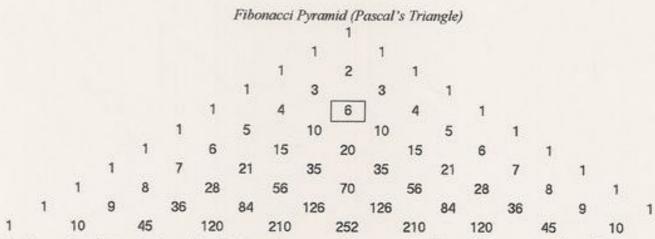
The Fibonnaci Sequence (based on '1') is also a 24-number repeating sequence, when it's elements are converted to single discrete numbers by horizontal addition (see table below).

The first 27 steps of a (1,3) Fibonnaci process. The repeating 24-digit number sequence for this

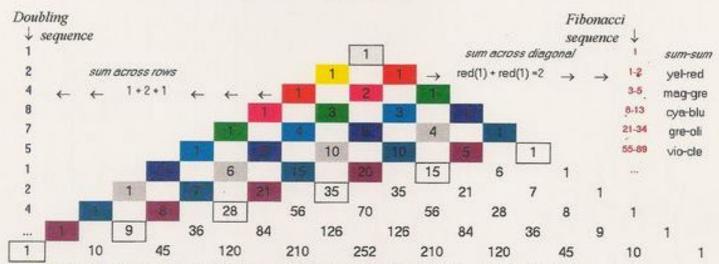
Fibonnaci Family is shown in magenta color.

Step	Fibonacci Element	Horizontal Sum	1st Differential
1	1	1	0
2	2	2	+1
3	3	2 3	+1
4	5 *	5	+2
5	8	8	+3
6	13	4	-4
7	21	3	-1
8	34	7	+4
9	55 -	1	-6
10	89	8	+7
11	144	9	+1
12	233	8	-1
13	377	8	0
14	610	7	-1
15	987	6	-1
16	1597	4	-2
17	2584	1	-3
18	4181	- 5	+4
19	6765	. 6	+1
20	10946	2	-4
21	17711	8	+6
22	28657	1	-7
23	46368	9	+8
24	75025	1	-8
25	121393	1	0
26	196418	. 2	+1
27	317811	3	+1

1

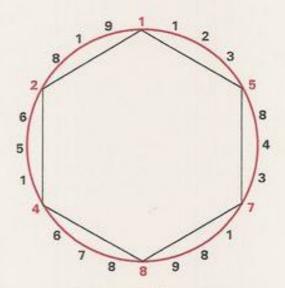


Each number element in the cells of this number pyramid are generated by adding two numbers (the two numbers diagonally and above the element). For example, 6 (highlighted near center) is the sum of its two upper left and right diagonals, 3 and 3.



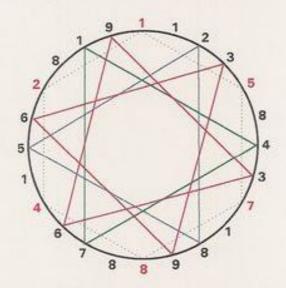
The Doubling Sequence. Using horizontal addition, summing along the rows of the number pyramid give the doubling sequence (1-2-4-8-7-5). Numbers of the doubling sequence are shown above to the left of the number pyramid in blue font. Each of the blue numbers of the doubling sequence is in its corresponding row position from which the sum was obtained (look horizontally across to the right and sum the numbers in that row). The three dot sequence (...) indicates the sequence is infinitely repeating. The Fibonacci Sequence numbers are shown in red font, to the right of the number pyramid above (in a stepwise fashion). Summing in a cross-diagonal pattern above results in a Fibonacci sequence based on 1 (1-2-3-5-8-13-21-34-55-89...), using the following method:

1) Begin the number sequence at the top of the pyramid. The Fibonacci sequence is comprised of summed groups of numbers obtained from the number pyramid. The groups of numbers are referred to as "angular series" of numbers, and through horizontal addition form a Fibonacci sequence. 2) First number (1). The first number of the sequence is 1, at the top of the pyramid. There are no other numbers in its angular series. Thus, the sum is = 1, the first number in the Fibonacci sequence. 3) Second number (1). Proceed down the left hand side of the pyramid to the next value of 1 (shaded yellow). As with the first number in the series, There are no other numbers in its angular series. Thus, the sum is = 1, the second number in the Fibonacci sequence. 4) Third number (2). The third number of the Fibonacci sequence is comprised of the angular series (1,1), as shown in the red shaded cells of the pyramid. 5) Succeeding numbers in the sequence are obtained in a similar fashion, by using horizontal addition for the numbers in each angular series (numbers is particular series are depicted with identical shading patterns in the number pyramid above.



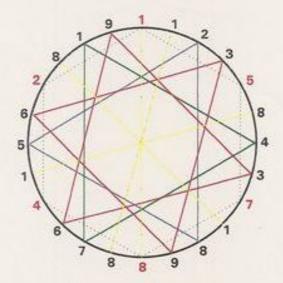
Fibonacci Sequence

The (1,3) Fibonacci Sequence is a repeating sequence of 24 numbers. The numbers are placed in order around the circumference of the circle above. Numbers are separated by 15 degrees on the circumference of the circle. Note that the numbers of the doubling circuit (1-2-4-8-7-5) create hexagonal polarization within the Fibonacci sequence.



Fibonacci Sequence

The Family Number Groups form the Star of David image in the Fibonnaci sequence. The Red Star of David is formed by the two sets of Family Number Group (3,6,9). The blue and green triangles above form another Star of David form Family Number Groups (2,5,8) and (1,4,7), respectively.



Fibonacci Sequence

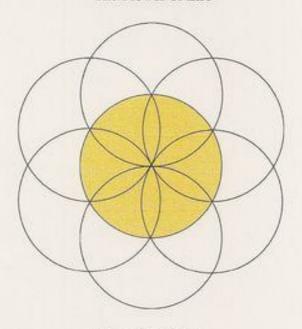
Eights and Ones are opposites (in yellow) and intersect in the center. They form temporary axes for oscillation. Note that for every directly opposed number pair in the diagram above (numbers separated by 180 degrees on the circle) the sum always = 9.

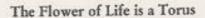
Flower of Life

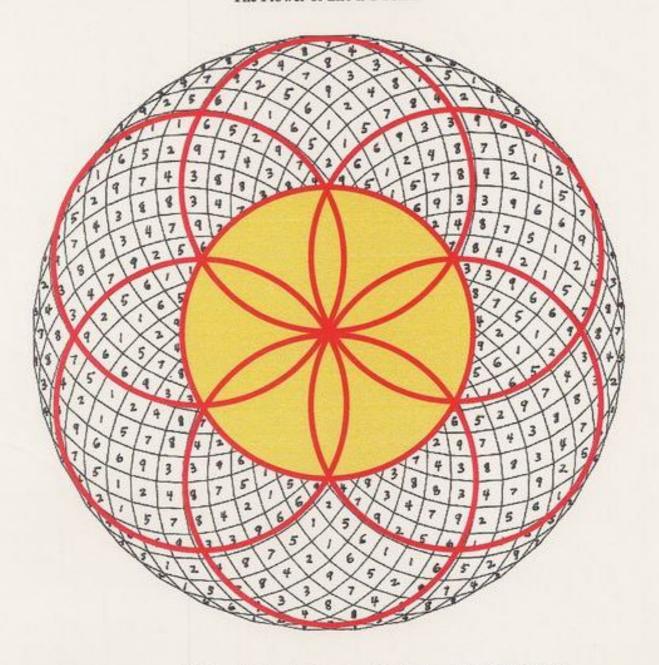
The Flower of Life is a Torus.

The Flower of Life symbol is an ancient symbol of vast significance to numerous cultures throughout human history. The symbol consists of a central circle and 6 other circles of identical size, arrayed about the central circle with their perimeters intersecting at the center of the central circle. Everything that has ever been created has been created by virtue of this patter. It represents the 7 days of creation in the Genesis Story. It has been found inscribed in temple walls from ancient Egypt. Contained within the Flower of Life is the concept of the Vesica Pisces which are there. The Flower of Life encodes the hexagonal pattern, polarizing matter by the angles described by a hexagon. The Flower of Life is also a three-dimensional cube. The Flower of Life is the minimum information needed to describe much more complex patterns. The Flower of Life is, therefore, a fractal system of creation.

The Flower of Life





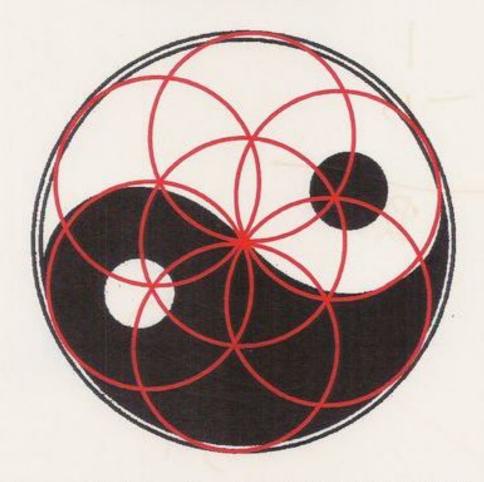


The Flower of Life inscribed on the Northern Hemisphere of the Rodin Torus.

Note the correspondence of the circles with the Doubling Circuits and Equipotential Major Grooves.

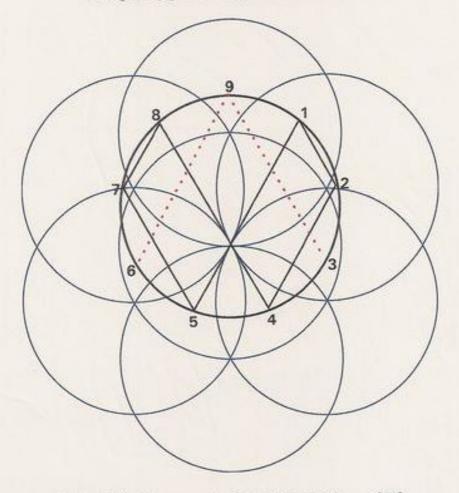
The central aspect of the Flower is the Mer-ka-ba.

The Flower of Life is the Ying-Yang



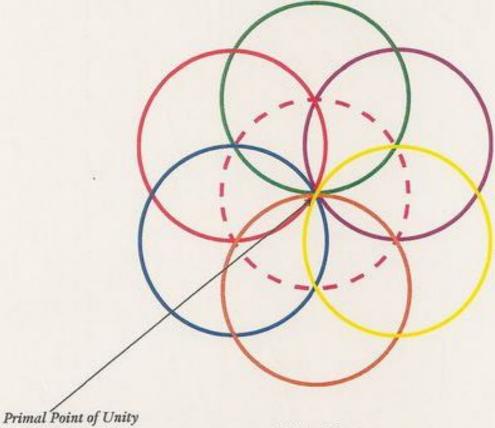
The Flower of Life (red) superimposed upon the Chinese Ying-Yang symbol. The Flower of Life, through the intersection of opposites (Vesica Pisces) is the infinite interplay of male and female, positive and negative.

The Symbol of Enlightenment is also hexagonally polarized by the Flower of Life



Symbol of Enlightenment inscribed within the Flower of Life.

Six Vesica Pisces Create the Flower of Life and the Rodin Torus



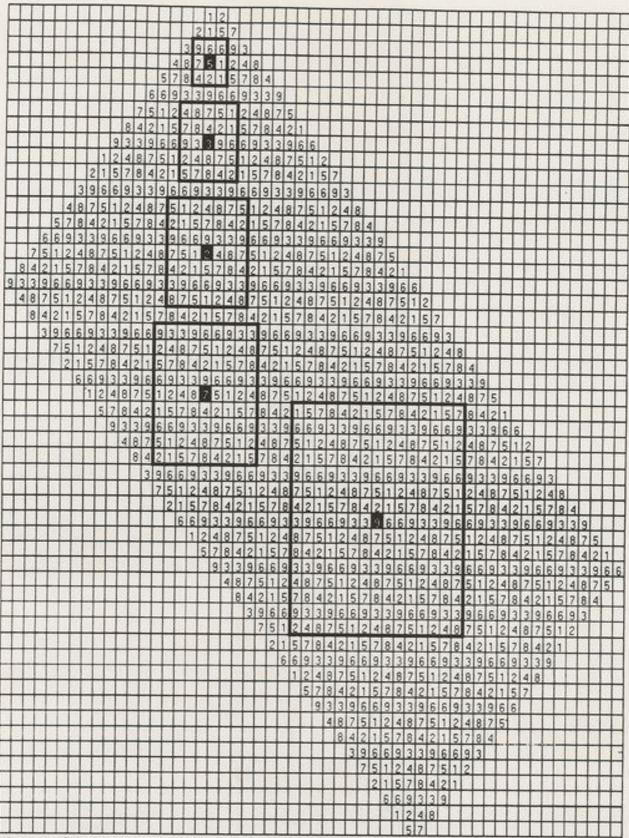
6 Vesica Pisces spin around the central circle

Vesica Pisces Circle Pairs

blue - red blue - orange orange - yellow yellow - violet violet - green green - red

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The sum of the numbers in any square cluster of diamond tiles [with length of side equal to an even number (2,4,6,8..)] always = 9. Random square clusters are shown above. Sum of their numbers = 9.



The sum of the numbers for odd-number clusters of tiles (excluding the central tile) always equals the number in the middle (shown with black border in the center of the randomly placed square clusters above).

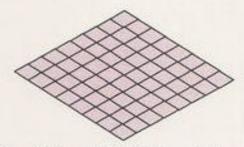
The Fractal Rodin Torus

Torus Number maps may change due to type and scale of tiling pattern.

1. From Triangle Carpet to Hexagon Carpet. An essential component of the Rodin Torus model presented in this glossary is the Diamond Tiling pattern which covers the Skin of the Torus and provides the lattice structure for the Map of Numbers. Pictured below is an enlarged, single Diamond Tile from the Rodin Torus, showing the number 9.

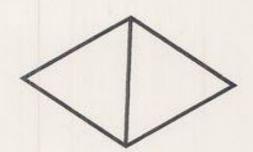


Single Diamond Tile

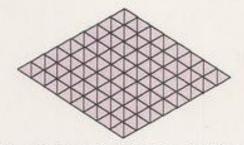


Map of Diamond Tiles (Diamond Carpet)

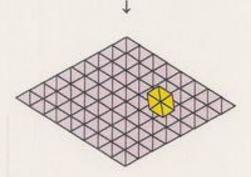
However, the simplest regular polygon which will tile a plane is the *Triangle*. A Diamond Tile, when bisected, becomes a pair of triangles. When bisected as shown in the following diagram, the Diamond Tile is reduced (multiplied) into two *Isosceles Triangles*.



Single Diamond Tile - 2 Triangular Tiles

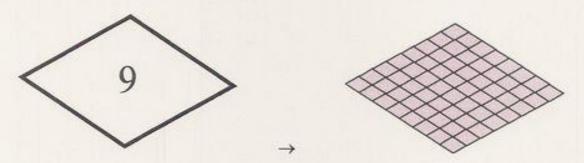


Map of Triangular Tiles (Isosceles Carpet)



Six of the Isosceles Triangles may unite to form a Hexagon, and the Hexagon Carpet. A yellow hexagon is shown suspended above the lattice, as an example of hexagon formation by 6 triangles joining at a central point.

2. The Number Map Can Reduce in Scale, an Infinite, Inwardly Recursive Fractal. A single Diamond Tile can be divided infinitely (by the triangle, diamond of hexagon tiling patterns). Shown below is single Diamond Tile divided into a 9 by 9 lattice of smaller Diamond Tiles (each containing their own number and all number sequences remaining intact). The sum of the numbers in the 9 by 9 lattice = 9. In fact, a single Diamond Tile could easily contain the entire Number Map for the Rodin Torus. This is fractal compression and de-compression.



One tile may become many tiles, infinitely.

The numbers always stay the same, in this case

9 = the sum of the numbers in the 9 by 9 lattice.

Notes:

 A Diamond Tile (above left) may be divided by triangles, diamonds, or hexagons, creating new torus Skins out of their Triangular, Hexagonal and Diamond Carpets. New Skin patterns do not change the number relationships.

Family Number Groups

A Family Number Group is a set of three, distinct, discrete numbers (1-9) from the universally recognized Base Ten Numerical Counting System. There are three Family Number Groups. Each Family Number Group has a different and unique set of three numbers.

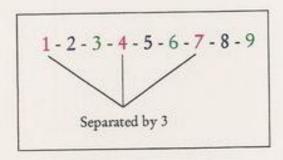
The 3 Family Number Groups are:

Family Number Group 1 is the set	{1, 4, 7}
Family Number Group 2 is the set	{2, 5, 8}
Family Number Group 3 is the set	{3, 6, 9}

The 3 Family Number Groups triangulate the Base 10 Numerical Counting System and create number relationships among specific trinary sets of numbers in the counting system.

Notes:

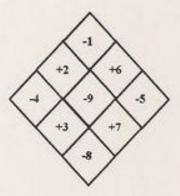
a) The numbers in a Family Number Group are separated by 3, for example in Family Number Group 2, 1+3=4, 4+3=7, 7+3=10 (and 10=1+0=1).



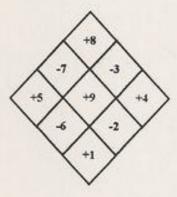
- b) All numbers within a Family Number Group assume either a positive or negative energy Polarity.
- c) The number activation sequence for the Family Number Groups creates the Nested Vortices on the surface of the Rodin Torus. This is a function of the Trinary Dwell Setting of the pulsed, synchronized direct current energy and the Negative Draft Counterspace created by the positive Emanations.



A "negative, swirling-inward, nested vortices sunspot", created by the sequential activation of three Family Number Groups Nested Vortices are created by the phased-array, sequential activation of numbers in the 3 Family Number Groups. The Polarity of numbers is indicated below by sign and by shading.



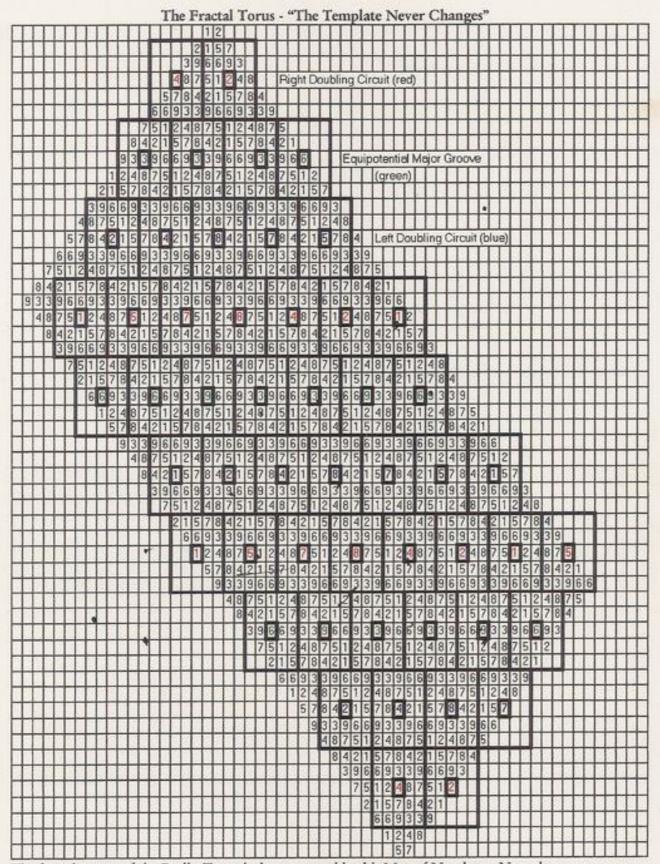
Positive swirling outward suppliant nested vortice sunspot.



Negative swirling inward suppliant nested vertice sunspot.

Related information:

- Numbers in the groups assume either a positive or negative polarity (2 positive, 1 negative). Polarity
 is dependent upon spatial position within a Nested Sunspot Vortex and the Aetheron Flux Monopole
 Emanations (see Fig. n above).
- 2. Family number groups are activated sequentially by the Aetheron Flux Monopole Emanations. For example, all positive numbers 3, 6 and 9 on the skin of the torus are activated at once by the emanations, followed by activation of family number group 2, and by family number group 3, and so on. This sequential activation of numbers creates mini-vortexes (spiraling energy and matter) on the surface of the torus. The positive vortexes spiral outward, whereas the negative votexes spiral inwards, due to the polarity and activation of the numbers in the family number groups (see Plate 137, 145, 152 in Rodin).
- The discrete numbers of family number groups 2 and 3 comprise the Doubling Circuits of the torus (1-2-4-8-7-5) and form the Symbol of Enlightenment.
- The discrete numbers of family number group 1 comprise the Equipotential Axis Major Grooves (9-3-3-9-6-6-9).
- 5. The family number groups define the harmonics of sound, music and energy, as shown by the Horizontal Axis of the torus (the sequence 4-8-3-7-2-6-1-5-9).
- 6. When inscribed on a circle, the family number groups which also form a 9-pointed Star.



The fractal nature of the Rodin Torus is demonstrated in this Map of Numbers. Note the new Doubling Circuits and Equipotential Major Grooves that exist at a larger scale of spatial resolution which is embedded within the fractal nature of the Torus. A new map can be created by combining tiles in different numbers and patterns.

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Groups of nine numbers are highlighted in the Number Map above. The sum of the 9 numbers always equals the number in the center. The sum of the 8 numbers surrounding the number in the center always equals 9.

Harmonics of Music and the Rodin Torus

Harmony. Harmony is the blending of geometrically-related sound waves, or tones. These waves differ in wavelength (frequency). Each wave is a mathematical function of other wave(s) in the blend. The waves travel through space as a group: as individual waves in phase with other waves. The waves are perfectly synchronized. Absence of harmony (discord) occurs when tones are blended that lack a special mathematical/geometric symmetry in relationship to the other tones.

Music and Geometry. A musical note is comprised of a 'fundamental' tone and infinite 'overtones'. The overtones have shorter wavelengths (higher frequencies) than the fundamental tone, and may not be readily perceived. Overtones are a mathematical function of the fundamental tone. In an harmonic series, wavelengths of overtones follow a specific, geometric series in relation to the fundamental tone. This phenomenon was known to the ancient Greeks, who used the Lambdoma Matrix as a language to express the sacred geometry of the relationships among waves. The geometry is sacred because it actually models the energy-matter interface. As Tibetan monks tone the tantric harmonics of this waveform geometry, their spirits ride the waves of perfect overtones into higher dimensions.

As shown by Pythagoras, there is a direct relationship between the harmonics of sound and two- and three-dimensional geometry. It is a well-established fact that sound vibrations can create complex geometric mandalas. And, it is a fact that geometric patterns manifest consistently throughout the universe. Thus, energy becomes crystallized into the geometric building blocks of nature (e.g., the Platonic solids: cube, sphere, dodecahedron, etc.). One of the most common geometric shapes in nature is the torus, the energy 'spine' of matter.

The Rodin Torus. Marko Rodin developed a simple mathematical model of a torus based upon the decimal system and horizontal addition. Rodin showed that the decimal system does, in fact, model a torus. Rodin states that the torus is a key to understanding the physics of the universe and that the mathematics of creation are coded within the torus.

Sound and Creation. The Bible (Genesis) states that by the voice of God the universe was created. Thus, by the harmonics of sound a physical universe was manifest from God's energy. God's intent (mind) and love (heart) established a cascade of perfectly coherent energy waves, expressed through God's voice. These energy harmonics were the interface between Creator and creation, which occurred through resonance.

Hypothesis. If the universe was created by the sound of God's voice, and if the torus is one of the most fundamental of all creations, then there should be a direct link between Rodin's Torus and the harmonics of sound. The geometry and existence of the Rodin Torus (a physical object) should be a function of the mathematics of sound (energy). With this in mind, I conducted a brief investigation into the relationship between the Rodin Torus and the harmonics of sound.

Methods

Frequencies for tones in an harmonic series. Frequencies (hz) of musical tones for an example harmonic series were obtained (Jonathan Goldman, *Healing Sounds*, 1992). Using the note 'C' (256 hz) as the fundamental, the first 16 harmonics in a perfect harmonic series are presented in Table 1.

Horizontal addends. Horizontal addends were calculated for each frequency (Table 1). Addends were obtained by using the horizontal addition method used by Marko Rodin in his Torus Model.

Horizontal addition proceeded until a single, discrete number (1-9) was obtained for each frequency. An example calculation is provided below:

Horizontal addition for the number '256'

(step 1): 2 + 5 + 6 = 13

13 is not a single digit, so continue horizontal addition.

(step 2):
$$1 + 3 = 4$$
.
 $256 = 4$.

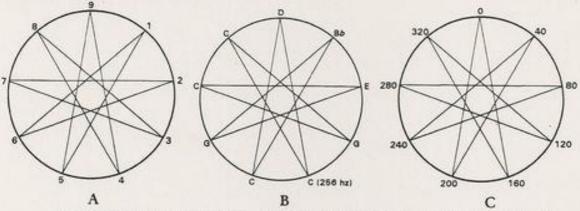
Table. The first 16 harmonics created using C vibrating at 256 hz as the fundamental.

Note	Interval	Solfege	Harmonic	Frequency	Addend*
1. C	Unison	do (1)	1st partial	256 hz	4
2. C	Octave	do (2)	2nd partial	512 hz	8
3. G	Perfect fifth	sol (1)	2nd partial	768 hz	3
4. C	Octave	do (3)	4th partial	1,024 hz	7
5. E	Major third	mi (1)	5th partial	1,280 hz	2
6. G	Perfect fifth	sol (2)	6th partial	1,536 hz	6
7. Bb-	Minor seventh	sib (1)	7th partial	1,792 hz	1
8. C	Octave	do (4)	8th partial	2,048 hz	5
9. D	Major second	re (1)	9th partial	2,304 hz	9
10. E	Major third	mi (2)	10th partial	2,560 hz	4
11. F#-	Augmented fourth	fa# (1)	11th partial	2,816 hz	8
12. G	Perfect fifth	sol (3)	12th partial	3,072 hz	3
13. A-	Minor sixth	lab (1)	13th partial	3,328 hz	7
14. Bb-	Minor seventh	sib (2)	14th partial	3,584 hz	2
15. B	Major seventh	si (1)	15th partial	3,840 hz	6
16. C	Octave	do (5)	16th partial	4,096 hz	1

^{*} Horizontal addition example: 254 hz = 2 + 5 + 6 = 13 = 1 + 3 = 4.

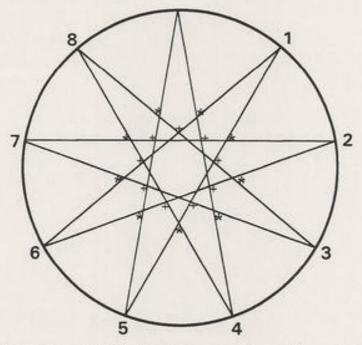
Existence of a repetitive pattern in the horizontal addends. The horizontal addends in this perfect harmonic series follow a repeated pattern: 4,8,3,7,2,6,1,5,9 ... 4,8,3,7,2,6,1,5,9 ... etc. (shaded in red in the above table) This repetitive pattern contains one of each of the discrete numbers in the decimal system (1-9). Thus, the decimal system is a model for the harmonics of sound (and, by extension, other energy).

Graphical representation of the repetitive number pattern. A graphical representation of this pattern is shown below, using the 9 numbers of the decimal system (1-9) placed at points equidistant along the circumference of a circle.

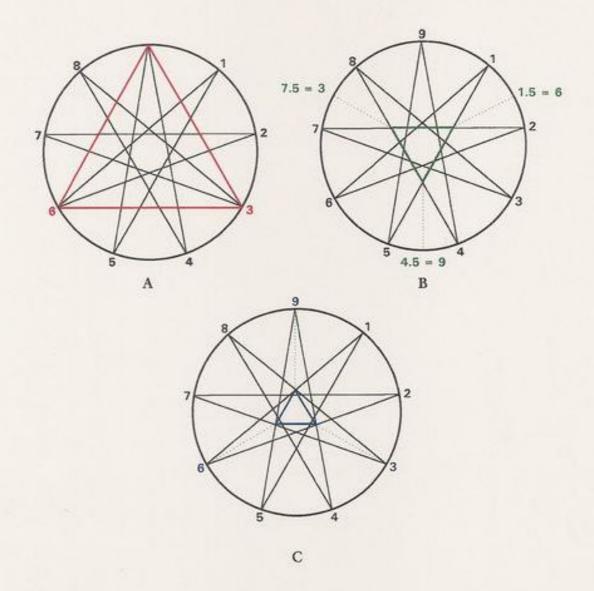


The Ennead defines harmony. Nine-pointed star pattern resulting from plotting the harmonic sequence of discrete numbers onto the circumference of a circle (A), the corresponding musical notes (B), and the corresponding angle (in degrees) (C).

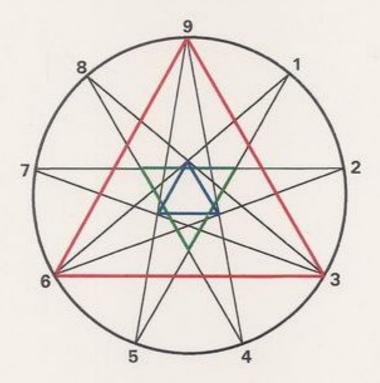
In the figures above, the numbers (1-9) were placed around the circumference of the circle, with the number 9 at the top. The numbers represent tonal frequencies in an harmonic series of overtones based upon the fundamental tone c = 256 hz. Numbers were connected by straight lines in the following order (4-8-3-7-2-6-1-5-9). This harmonic sequence was obtained using horizontal addition and using C = 256 hz as the fundamental tone for the series of overtones. Note that in Figure C, the progression of angle values is also a harmonic series: proceed clockwise from zero degrees and the sequence is (40-80-120-160-200-240-280-320), which after horizontal addition becomes (4-8-3-7-2-6-1-5-__), the familiar Horizontal Axis of the Rodin Torus and the Harmonic Series described by the 9-pointed Star.



Three Nested Nine-pointed Stars. The 9-pointed star pattern is actually a series of three, nested 9-pointed stars: 1) the Outer Star whose points touch the circle; b) the Middle Star (whose points are shown with a '+'-symbol above); and 3) the Inner Star (whose points are denoted by asterisks, *). The pattern produced by the repeating sequence of numbers is a vortex of three, nested, nine-pointed stars.

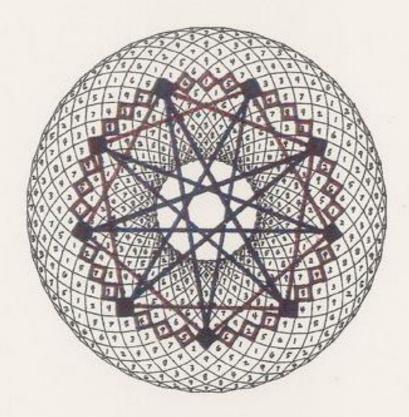


3-6-9 Isosceles Triangles Define a Star of David. Each of the 3, nested 9-pointed stars is stabilized by 3 interlocking Isosceles Triangles, which connect the 3 numbers of the three Family Number Groups with straight lines. In the diagrams above, 1 of the 3 interlocking isosceles triangles is shown for each of the nested 9-pointed stars (the outer star (A), the middle star (B), and the inner star (C)). This triangle connects the 3-6-9 aspects of Family Number Group Three for each star, as shown by the numbers on the circle perimeter which correspond to the associated 3-, 6-, or 9- vertex of the isosceles triangle. Note that the triangle for the middle star (B) is inverted, or ratcheted, in relation to the outer and inner stars.

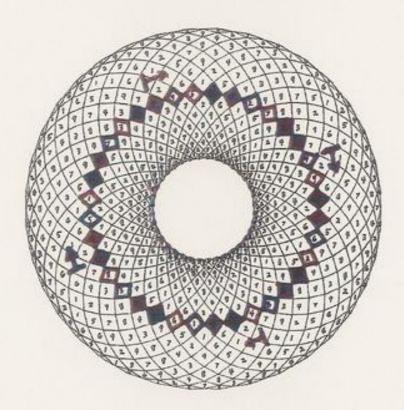


There is a nested Star of David (Enoch's Star) relationship among the 3 Isosceles Triangles for the [3-6-9] Family Number Groups. The Star of David pattern is not immediately noticeable, because the triangles are different sizes. The triangles increase in size (area) logarithmically. The triangles actually are all of the same size, but lie at receding distance along an axis in three-dimensional space, so that as one looks into the central part of the 9-pointed Star diagram, the view is like looking down a triangular tunnel.

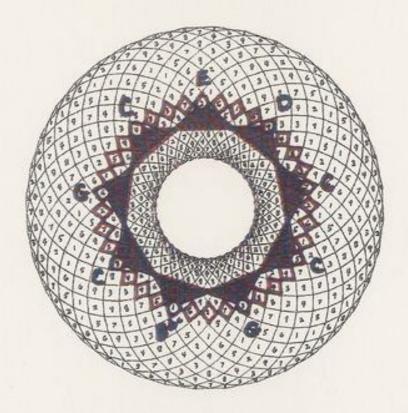
Therefore, at the center of the 9-pointed Star is the Star of David.



Two Nine-Pointed Stars. 36 Numbers in a single spire of the 36-digit Horizontal Axis of the Rodin Torus are outlined in red above, forming a circular pattern of diamond tiles on the skin of the Torus. Within that 36-number sequence, the diamond tiles for the staggered number sequence (4-8-3-7-2-6-1-5-9) a filled in with red color, and serve as the vertexes for Nine-Pointed Stars. Two Nine-Pointed Stars are shown inscribed within this reddened Spire of the Horizontal Axis. The Outer 9-pointed star is red in color, and follows the staggered 4-8-3-7-2-6-1-5-9 sequence around the circle...this is the Harmonic Series plotted in two revolutions about the central circle. Energy within a Vortex path follows this spiraling circuitry defined by the outer, red-colored 9-pointed star. The inner 9-pointed star is blue in color, at the center of which is an invisible, nested Star of David. The Nine-Pointed Star integrates the harmonics of the Rodin Torus and defines the path of energy and matter within the Vortex that draws energy and matter into the Aeth Coalescence.



There are four sets of nine numbers creating four spiral arms per Spire of the Horizontal Axis. There are four spiral arms per Spire of the Horizontal Axis of the Rodin Torus. Two spiral arms are Compression (and are opposite each other by 180 degrees) and two arms are De-Compression (also opposite). These spiral arms define the processes of Compression and De-Compression. The Nine-Pointed Star defines the specific positions on the 36-pointed star-circle the compressing and decompressing spiral arms will travel. Two red arrows and two blue arrows above show a starting position for four spiral arms at number 4.



One set of overtones. Here, a single set of eight overtones and a fundamental tone (C = 256 hz) are shown, placed in their proper position on the points of the 9-Pointed Star. The numbers along the horizontal axis (4-8-3-7-2-6-1-5-9) do not travel in a linear sequence around the Horizontal Axis of the Torus, as one can see. The number sequence moves in a non-linear fashion in reverse direction to the linear, 4-8-3-7-2-6-1-5-9 sequence. For example, above, the reddened Horizontal Axis numbers 4-8-3-7-2-6-1-5-9 proceed in a clockwise direction. However, the actual pattern of harmonic movement occurs in contra-flow and forms a Nine-Pointed Star Vortex pattern around the center of the Torus. These tones of this series correspond to one component spire out of 4 spiraling arms. Three other 9-Pointed Star patterns occur within this spire (2 compressing, 2 de-compressing) (not shown).

Discussion

Energy flows along the Doubling Circuits of the Rodin Torus. I have shown that the Horizontal Axis of the torus is comprised of a perfect Harmonic Series. This axis intersects the Doubling Circuits.

The harmonic series found in the Horizontal Axis of the torus is the link between energy and matter. Without the harmonics manifest in the torus, matter would not crystallize from its energy. The harmonics of this axis are the link between Creator and Creation. The horizontal axis of the torus, described by the several harmonic series of discrete numbers, is literally the "ribs" of the physical structure of the torus. From any one of these "ribs", the entire torus (the entire universe) can be created. The "ribs" occur at right angles to the flow of energy in the torus, and provide the symmetry of waveforms needed to manifest 3-dimensional structures. God created woman (according to Genesis) by removing a rib from Adam as a seed for his mate, Eve. Using His intent (mind) and love (heart) energy, God selected a rib from Adam's torso (=torus) with harmonics in reverse polarity to that of Adam, thereby creating Eve.

Origin of the Harmonic Number Sequence

4-8-3-7-2-6-1-5-9

Each successive pair of numbers in the sequence (4-8, 3-7, 2-6, 1-5, etc.) is separated by 4. The harmonic number sequence may be derived (via horizontal addition) from multiplication series based upon 4 and 5, as follows:

FOUR	FIVE
4x1 = 4	5x1 = 5
4x2 = 8	5x2 = 1
4x3 = 3	5x3 = 6
4x4 = 7	5x4 = 2
4x5 = 2	5x5 = 7
4x6 = 6	5x6 = 3
x7 = 1	5x7 = 8
4x8 = 5	5x8 = 4
4x9 = 9	5x9 = 9

The sequence of numbers from these two multiplication series form the Horizontal Axis (the x-axis) of the Rodin Torus. The sequence forms the Aetheron Flux Monopole Waves of the Rodin Torus.

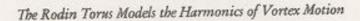
The Harmonics of Vortex Motion

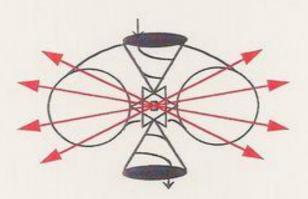
A vortex (e.g., a tornado or whirlwind) is modeled by the Number Map and the Rodin Torus.

Abstract. A vortex is composed of four, interlocking spiral arms that join together in a spiraling, vortex motion. The four arms are separated by 90 degrees along the circular, Horizontal Axis of the Rodin Torus. Each of the spiraling arms traces a descending (Compression) or ascending (De-Compression) spiral path that follows the surface of a cone into the Aeth Coalescence (Compression vortex) or away from or out of the Aeth Coalescence. The Rodin Torus model describes two, major Vertical Vortices (Compression and De-Compression) and the Number Map models the precise, ratcheting, spiral path that matter and energy follow within these vortices during Compression and De-Compression. A vortex defines a spiral path through space and time. The path oscillates harmonically about a central axis (the 9-axis). All Matter and energy in the Third Dimension follow a vortex path.

Compression and De-Compression Vortex. The Rodin Torus is a model of two major Vertical Vortices that join at the central point of the Torus:

- a) one vortex is a descending, Compression spiral into the Black Hole side of the Aeth Coalescence; and
- b) the other vortex is a De-Compression spiral out of the reverse side (White Hole) of the Rodin Torus.





Cut-away, lateral view of the Torus showing cone-shaped Vertical Vortices and the Aeth Coalescence. Two, mirrored cones define the path of matter and energy in the Compression and De-Compression spiral vortices of the Rodin Torus (depicted above is a cross-section of a lateral view of the Rodin Torus). The Compression vortex (indicated by the upper, down-pointing arrow) brings matter and energy along a spiral path into the Aeth Coalescence (blue hexagon at center of drawing). Conversely, the De-Compression vortex (indicated by the lower, down-pointing arrow) defines the path followed by expanding matter and energy as it is emitted from the White Hole. Red arrows signify the Aetheron Flux Monopole Emanations, which are emitted from the Aeth Coalescence.

Functions of the Compression and De-Compression vortices:

- a) They create and impart circulation to the Torus Field
- b) They draw in external matter and energy into the Torus Field
- c) They compress and De-compress matter and energy
- d) They are the cosmic recycling mechanism in the Third Dimension
- e) They feed energy to the Reactionless Drive towards the production of the Aetheron Flux Monopole Emanations

Vortex Structure and the Harmonic Path of Compression and De-Compression

The Horizontal Axis of the Rodin Torus.

A single Spire of the Horizontal Axis of the Rodin Torus consists of a string of 36 numbers. This 36digit number string is the following sequence (4-8-3-7-2-6-1-5-9) repeated 4 times:

4-8-3-7-2-6-1-5-9-4-8-3-7-2-6-1-5-9-4-8-3-7-2-6-1-5-9 = one Horizontal Spire

This 36-digit number string form concentric circles along the Horizontal Axis of the Rodin Torus, when the torus is viewed from above. Below, one such Horizontal Spire is shaded in red, showing the circular set of 36 numbers described above:

[please refer to the glossary section on "Horizontal Axis" for an image of circular, Horizontal Spires.]

Total number of Horizontal Spires. There are 36 spires of the Horizontal Axis on the Torus:

a) The "Compression Vortex". There are 18 Spires for the "Compression Vortex" (9 Spires for Compression in the in Northern Hemisphere, 9 Spires for De-Compression in Southern Hemisphere).

Note: The "Compression Vortex" is actually 1/2 Compression and 1/2 De-Compression. In the Northern Hemisphere, the Compression Vortex covers 9 Spires of the Horizontal Axis, spiraling inward from the Torus Equator to the Aeth Coalescence. When the Compression process reaches the Aeth Coalescence, the process of De-Compression begins on the opposite side (Southern Hemisphere) of the Torus and continues outward, for the 9 spires between the Aeth Coalescence and the Torus Equator.

b) The "De-Compression Vortex". There are 18 Spires for the "De-Compression Vortex" (9 in for De-Compression in the Northern Hemisphere, 9 for Compression in Southern Hemisphere).

Note: The "De-Compression Vortex" is actually 1/2 De-Compression and 1/2 Compression. In the Northern Hemisphere, the De-Compression Vortex covers 9 Spires of the Horizontal Axis, spiraling outward from the Aeth Coalescence to the Torus Equator. When the De-Compression process reaches the Torus Equator, the process of Compression takes over on the on the opposite side (Southern Hemisphere) of the Torus and continues inward (towards the Aeth Coalescence), for the 9 spires between the Torus Equator and the Aeth Coalescence.

Therefore, in essence, the processes of Compression and De-Compression each are accomplished within 9 Spires of the Horizontal Axis of the Rodin Torus.

The Harmonics of the Horizontal Axis number sequence.

As demonstrated elsewhere in this Glossary, the number sequence (4-8-3-7-2-6-1-5-9) is a Harmonic Series of tones.

- This number sequence (4-8-3-7-2-6-1-5-9) represents a fundamental tone and the first 8 overtones.
- This number sequence (4-8-3-7-2-6-1-5-9) represents 4 octaves of overtones in relation to the fundamental tone, for the first 8 overtones in a Harmonic Series always spans 4 octaves of tones.
- Therefore, each 36-digit Spire of the Horizontal Axis of the Rodin Torus (the base number sequence repeated 4 times) represents 16 octaves of overtones for each of the 18 Compression and De-Compression spires of the Rodin Torus.
- Therefore, there are 288 octaves of energy (16 octaves x 18 spires = 288) expressed in both the Compression vortex and the De-Compression vortex. (288 = 2 + 8 + 8 = 9).
- Therefore, because both the Compression and De-Compression Vortices are actually 1/2 Compression and 1/2 De-Compression (see above), there are <u>144 octaves of overtones</u> needed to complete the Compression or De-Compression process (there are 144 octaves expressed in 9 Spires of the Horizontal Axis).

The Vortex Path is Defined by a Harmonic Series of Tones

During Compression and/or De-Compression, matter and energy move from one Spire of the Horizontal Axis to the adjacent spire (either towards the Aeth Coalescence or away from the Aeth Coalescence). This motion follows a specific, harmonically-defined pathway.

As indicated, the pathway followed by compressing and De-compressing matter and energy within the two, vertical vortices of the Rodin Torus is a ratcheting, spiral pathway. For review, here is the linear sequence of numbers which comprise a single Spire of the Horizontal Axis.

4-8-3-7-2-6-1-5-9-4-8-3-7-2-6-1-5-9-4-8-3-7-2-6-1-5-9(the number sequence moves linearly in this direction \rightarrow)

Remember: the Horizontal Axis of the Rosin Torus is comprised of 36 Spires. 18 spires proceed in the direction indicated above. The other 18 Spires are placed between the forward moving (→) sequences as shown above, in the opposing direction, as follows:

9-5-1-6-2-73-8-4-9-5-1-6-2-73-8-4-9-5-1-6-2-73-8-4 (the number sequence moves linearly in this direction ←)

These two identical, but opposite number stings appear in alternating Spires on the Horizontal Axis of the Rodin Torus. One is for Compression, one is for De-Compression.

Compression and De-Compression proceed in a single direction defined by the direction of the Horizontal Spire number sequence.

The Direction of Vortex Movement in Relation to Horizontal Spires.

The direction of vortex flow (for Compression or De-Compression) occurs in contra-direction to the direction of the number sequence as described above. First, a linear sequence of 36 digits (that is, the 9-number sequence 4-8-3-7-2-6-1-5-9 repeated 4 times per Spire of the Horizontal Axis) is shown again below:

4-8-3-7-2-6-1-5-9-4-8-3-7-2-6-1-5-9-4-8-3-7-2-6-1-5-9(the number sequence moves linearly in this direction →)

Matter and energy follow a spiral path in a vortex. Each position along the path is represented by a frequency, a wavelength, an energy state. All of these position along the path are related harmonically, and follow a perfect harmonic series which is embedded in reverse direction to the sequence shown above.

Matter and energy along the Vortex path make two, semi-circular revolutions about a single Spire of the Horizontal Axis before ratcheting down or up to the next. adjacent Spire in the Compression or De-Compression Vortex. This two-cycle revolution (which follows an embedded, harmonic series in reverse direction to the "direction" of the Spire) results in a 9-pointed Star pattern, a pattern which integrates the harmonics of the Rodin Torus (see next page).

The First Cycle of Revolution about a Spire of Horizontal Axis starts the vortex:

 \leftarrow begin here (4) 4-8-3-7-2-6-1-5-9-4-8-3-7-2-6-1-5-9-4-8-3-7-2-6-1-5-9 (the number sequence moves linearly in this direction \rightarrow) \leftarrow whereas the movement of the <u>vortex</u> actually is in contra-direction to this sequence.

(the <u>first</u> cycle of harmonic-vortex revolution is shown in red above, in contra direction) the first cycle = 4-8-3-7

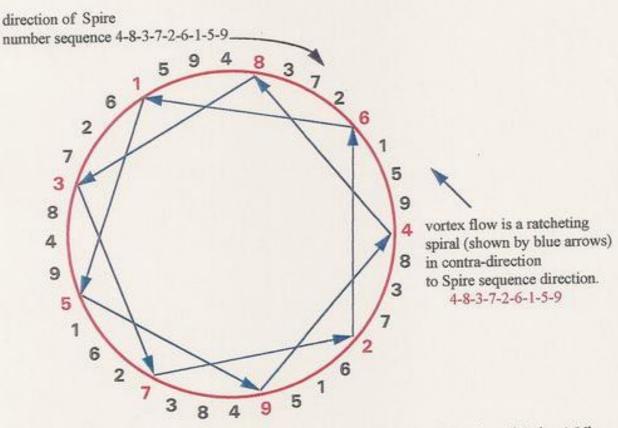
The Second Cycle of Revolution about a Spire of Horizontal Axis finishes the Spire:

4-8-3-7-2-6-1-5-9-4-8-3-7-2-6-1-5-9-4-8-3-7-2-6-1-5-9

(the number sequence moves linearly in this direction →)

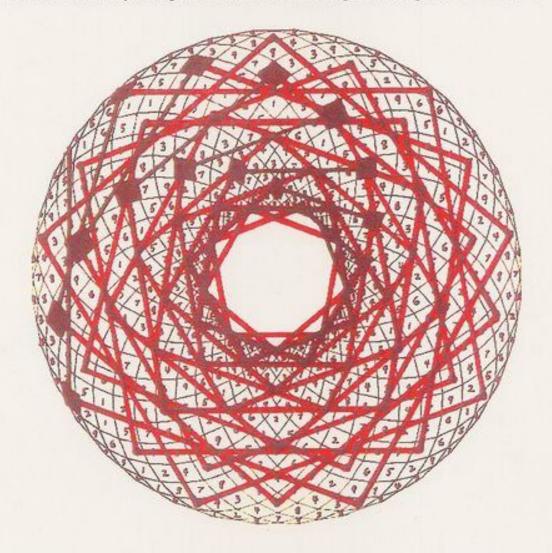
← whereas the movement of the <u>vortex</u> actually is in contra-direction to this sequence.

(the <u>second</u> cycle of harmonic-vortex revolution is shown in red above, in contra direction)
the second cycle = 2-6-1-5



This circle of numbers is the 36-digit number sequence of a Spire of the Horizontal Axis. A Nine-Pointed Star Pattern is revealed by the Vortex Movement: there are two revolutions around the circular, 36-digit Spire of the Horizontal Axis of the Rodin Torus. The two revolutions follow a 4-8-3-6-2-7-1-5-9 sequence in contra-direction to the apparent number sequence of this Spire of the Horizontal Axis. There are FOUR of these star patterns per Spire (only one is shown here).

When both revolutions around a Spire are complete, the Vortex ratchets down or up to the next number 9 on the adjacent Spire, and the two-revolution process is repeated for that Spire.



View of the Northern Hemisphere of the Rodin Torus, showing only one (red, spiraling line) of the four, spiraling arms which comprise the Compression Vortex. Two revolutions per Spire of the Horizontal Axis create a ratcheting, 9-pointed star pattern which defines the path and the specific frequency (energy state, compression state, etc.) for matter and energy. Each of the four arms would be visible also on the Southern Hemisphere, and are separated by 90 degree angles in relation to each other. Each number represents an archetypal state of energy within the vortex.

Harmonics of Vortex Action.

Eighty-one tone set of frequencies comprising one, ratcheting nine-pointed spiral arm of the Rodin Torus. The fundamental tone selected for this example was C = 256 hertz. Tones 2-81 are overtones in a harmonic series. The sequence of overtones follows the 4-8-3-7-2-6-1-5-9 sequence. Spatially, the frequencies are related in a ratcheting, nine pointed ascending or descending spiral staircase towards or away from the center of the torus. The energy, or tones, are either seeking higher or lower potential, and follow a specific path defined, in part, the list of frequencies in the table below. The range of the torus, in this example, corresponds roughly to the range of normal human hearing.

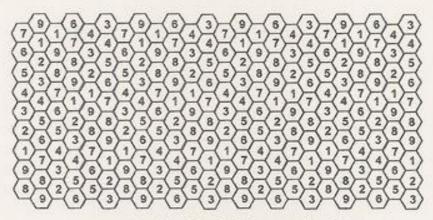
Tone No.	Frequency (hz)	Horizontal Addend
1	256 *	4
2	512	8
3	768	3
4	1024	7
5	1280	2
6	1536	6
7	1792	1
8	2048	5
9	2304	9
10	2560	4
11	2816	8
12	3072	3
13	3328	7
14	3584	2
15	3840	6
16	4096	1
17	4352	5
18	4608	9
19	4864	4
20	5120	8
21	5376	3
22	5632	7
23	5888	2
24	6144	6
25	6400	1
26	6656	5
27	6912	9
28	7168	4
29	7424	8
30	7680	3
31	7936	7
32	8192	2

33	8448	6
34	8704	1
35	8960	5
36	9216	9
37	9472	4
38	9728	8
39	9984	3
40	10240	7
41	10496	2
42	10752	6
43	11008	1
44	11264	5
45	11520	9
46	11776	4
47	12032	8
48	12288	3
49	12544	7
50	12800	2
51	13056	6
52	13312	1
53	13568	5
54	13824	9
55	14080	4
56	14336	8
57	14592	3
58	14848	7
59	15104	2
60	15360	6
61	15616	1
62	15872	5
63	16128	9
64	16384	4
65	16640	8
66	16896	3
67	17152	7
68	17408	2
69	17664	6
70	17920	1
71	18176	5
72	18432 -	9
73	18688	4
74	18944	8
75	19200	3
76	19456	7
77	19712	2
78	19968	6
79	20224	1
80	21200	5
81	20736	9

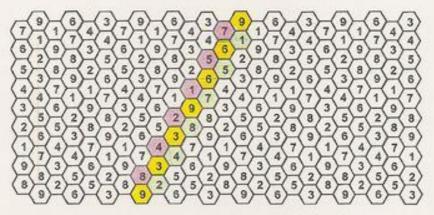
Fundamental tone for this example.

Hexagon Tiles

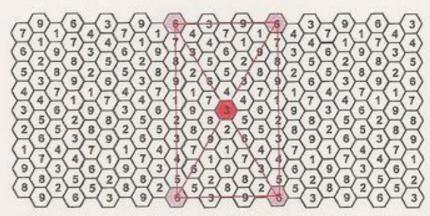
The Skin of the Rodin Torus may also be covered with Hexagon Tiles. The numbers within hexagons below are the horizontal addition sum of 6 triangular tiles each (remember: there exist two Triangular Tiles per single Diamond Tile).



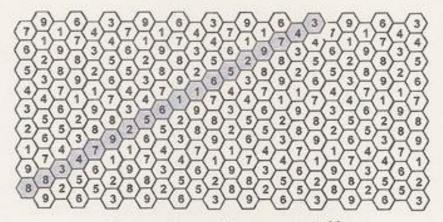
Basic Number Map for Hexagon Carpet.



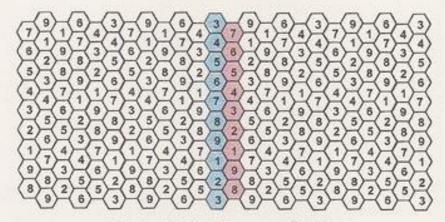
Doubling Circuits and Equipotential Major Groove



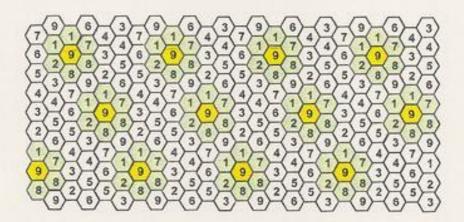
The Golden Mean Rectangle corners always converge on the Polar Pair twin.



The Nexus Key number sequence in blue

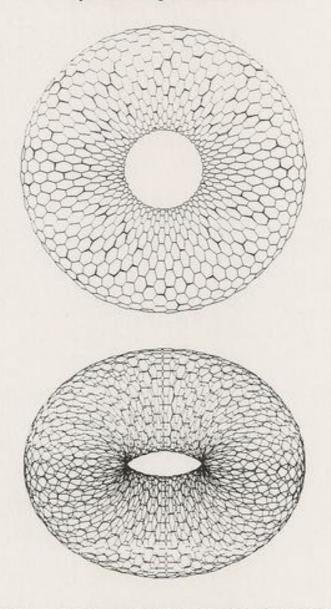


The Vertical Axis in contra-direction.

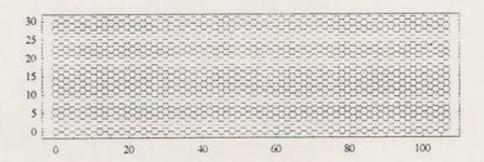


Nested Vortices for Positive Number 9.

Transparent Hexagonal Skin on Torus



Torus with Hexagon Carpet - Transparent Top View and Side View



Hexagon Carpet used for this Torus

History of the Development of the Rodin Torus Model

- A Question. A teenage Marko Rodin sought the answer to what was for him an important question: "What is the secret of universal intelligence?". The answer came to Rodin in the form of a flash of inspiration: "the secret of intelligence is revealed in the name and sound (voice) that are unique to each individual". Rodin realized that the secret to universal intelligence, to the mind of God, lay in the very sound and name of God.
- The Baha'i Faith. Rodin began to study the world's major religions, seeking names for God. His
 search brought him to the Baha'i faith, whose language is Arabic.
- 'ABHA', the Bahai name for God. Rodin found that the Baha'i name for God is "ABHA" (superlative case).
- A System of Numerical Notation. Rodin learned of an ancient system of numerical notation, in
 which each of the 28 letters of the Arabic alphabet is assigned a unique, discrete number. This ancient
 system is known as the 'Abjad Numerical Notation System. The numbers assigned to the letters, A, B,
 and H, are 1, 2 and 5, respectively.
- An Equation. Rodin learned that the Baha'i name for God is actually an equation which calculates the numerical value of God, where:

- Loop Structure. Rodin noted that the name of God (1251) begins with, and returns to the number 1
 (1→2→5→1). He reasoned, therefore, that the name of God represents a circle, a loop, a ring
 formation.
- Doubling, Halving and Inverse Reciprocal Functions. Rodin noticed that the Baha'i name for God also represents "Doubling", and the mirror image of doubling, "Halving". This realization occurred when Rodin placed a decimal point in the center of the circular name for God (12.51). He noticed that by moving in opposite directions, from either end towards the central decimal point (i.e., from 1→ 2 and .5 ← 1 from), that doubling (from 1→ 2) and halving (.5 ← 1 from) were aspects of the Baha'i name for God. Thus, in this circular name for God, two halves of the circle comprise mirror images of each other, doubling and halving, and that 2 and .5 are Inverse Reciprocal Functions.
- Horizontal Addition. Rodin began to realize the significance of numbers in relation to the universe.
 He began to examine other ring formations for all numbers (1-9), and linked this study with the concept of Horizontal Addition.
- The Number 9. In his study of ring formations, Rodin drew a circle and placed the numbers 1-9 at equidistant points (40 degrees) around the 360-degree circumference of the circle, with the number 9 at the top of the circle. The number 9, according to Baha'i scriptures, "is immutable, fortified, treasured and unapproachable". He noted, with interest that the horizontal sum of the numbers (1 through 9) is equal to 9, which correlated with the Baha'i name for God.

- The Doubling Sequence and the Symbol of Enlightenment. Rodin further explored the concepts
 of Doubling and Halving in relation to the set of numbers (1-9). He discovered what he named the
 "Doubling Sequence" and the Symbol of Enlightenment.
- The Toroidal Map of Numbers. Rodin developed the Toroid Map of Numbers from the '1251'
 Equation and the Symbol of Enlightenment.

Horizontal Addition

Horizontal Addition (also known as 'cross- addition') is the mathematical process of summing the digits of a multiple digit number until a single digit addend (from 1-9) is obtained. Horizontal Addition forms the basis for Polarized Fractal Geometry and the mathematics inherent in the Number Map of the Rodin Torus. In the Rodin Torus model and all related material, Horizontal Addition is used in all cases to reduce all numbers, without exception, to their single digit origin number.

Example of Horizontal Addition:

Example: the number '478' 478 = 4 + 7 + 8 = 19 = 1 + 9 = 10 = 1 + 0 = 1.Therefore, 478 = 1.And (478) = (-1)1 = single digit origin number for 478

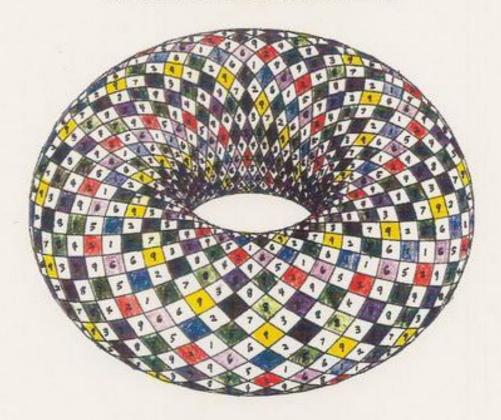
Related information:

- 1. Any number can be reduced to its corresponding position within the 3 Family Number Groups.
- Each single digit origin number (1-9) has unique Charactersitics. Therefore, all numbers can be understood through horizontal addition as also having the archetypal characteristics associated with the specific single digit origin number.
- 3. Polarity is not affected by horizontal addition. A positive number remains positive, and a negative number remains negative.
- 4. The sum of all numbers (1-9) = 45 = 9.
- 5. The sum of the numbers in the Three Family Number Groups are:

```
Family Number Group 1: (3 + 6 + 9) = 9
Family Number Group 2: (1 + 4 + 7) = 3
Family Number Group 3: (2 + 5 + 8) = 6
```

- 6. The sum of two Polar Pair numbers always = 9 (example 8 + 1 = 9).
- 7. The sum of the numbers in the Doubling Circuit is: (1 + 2 + 4 + 8 + 7 + 5) = 27 = 9.
- 8. The sum of the basic number sequence of the Vertical and Horizontal Axes of the Rodin Torus are:
- (1+2+3+4+5+6+7+8+9)=45=9.
- 9. The sum of the numbers in the Nexus Key number sequence = 90 = 9.
- Decimal numbers also may be reduced to a single digit via Horizontal Addition: (example 4.5 = 9).

Horizontal Axis and the Harmonics of Energy



Numbers of positive polarity are colored harmoniously on the Horizontal Axis of the Rodin Torus, according to the perfect Harmonic Series defined by the number sequence (4-8-3-7-2-6-1-5-9)

Table of Color Overtones, based upon Green = fundamental color tone:

- 4 Green (Fundamental tone)
- 8 Green (2nd Octave)
- 3 Violet
- 7 Green (3rd Octave)
- 6 Violet
- 1 Blue-Indigo
- 5 Green (4th Octave)

Notes:

- 1. A single set of 9 overtones (4-8-3-7-2-6-1-5-9) has 4 octaves of overtones.
- 2. There are 4 sets of 9 overtones per Spire of the Horizontal Axis (i.e. the sequence, 4-8-3-7-2-6-1-5-9, is repeated 4 times per Spire.
- 3. Therefore, there may be (4 octaves x 4 sets = 16 octaves) 16 octaves of energy expressed by a single Spire of the Horizontal Axis.

Inverse Reciprocal Functions

Inverse Reciprocal Functions. Inverse Reciprocal Functions are pairs of numbers that meet the following 3 criteria (a-c):

- a) the two numbers are from the range (1-9)
- b) when the two numbers are multiplied together, the result always = 1 (after Horizontal Addition to reduce the sum to one digit).

Example: for Inverse Reciprocal pair [2,5]: $(2\times5) = 10 = (1+0) = 1$.

c) If x = one of the reciprocal pairs and y = the other number, then for any number (n) 1 through 9:

$$(n \times y) = (n \div x)$$

and

$$(n \times x) = (n \div y)$$

Thus, when Reciprocal Functions are used as divisors or multipliers, the products and quotients are always identical for a given number (1-9). For example, for n = 7 and Reciprocal Function pair [x, y] = [2, 5], then the following equations are true:

$$(7 \times 5) = (7 \div 2) = 8$$

and

$$(7 \times 2) = (7 \div 5) = 5$$

Four sets of Inverse Reciprocal Functions. There are four sets of whole number Inverse Reciprocal Function pairs. They are:

[1, 1]

[2, 5]

[4, 7]

[8, 8]

Other Inverse Reciprocal Function Pairs (following Doubling and Halving Circuits) are:

[1, 1]

[2, 0.5]

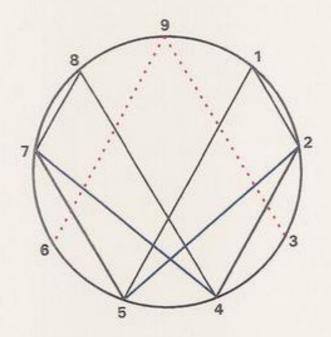
[4, 0.25]

[8, 0.125]

[16, 0.0625]

[32, 0.03125]

etc. There exist an infinite number of sets in this sequence.



The Symbol of Enlightenment. Blue lines show aetheric connection between Inverse Reciprocal Function pairs [2, 5] and [7, 4]. These four numbers are part of an infinite loop relationship as shown by the Infinity Symbol (2-5-7-4) inscribed by their arrangement.

Some Points of Reference: Inverse Reciprocal Functions.

The number 1 is the point of Origin for all Inverse Reciprocal Functions.

Everything originates from the discrete number 1.

All of the Inverse Reciprocal Function pairs are connected to the number 1 along the Doubling Circuits.

The Inverse Reciprocal Functions are a product of the Doubling Circuits.

Each Inverse Reciprocal Function pair has unique properties, and function harmoniously as a group.

2 and .5

are "inverse reciprocal functions"

The numbers 2 and .5 are inverse reciprocal functions, because when used as divisors or multipliers, the product and quotient are always identical for a given number.

Examples:

$$7 \times 2 = 5$$

$$7 \div .5 = 5$$

$$7 \times .5 = 8$$

$$7 \div 2 = 8$$

$$4 \times 2 = 8$$

$$4 \div .5 = 8$$

$$4 \times .5 = 2$$

$$4 \div 2 = 2$$

$$8 \times 2 = 7$$

$$8 \div .5 = 7$$

$$8 \times .5 = 4$$

$$8 \div 2 = 4$$

$$1 \times 2 = 2$$

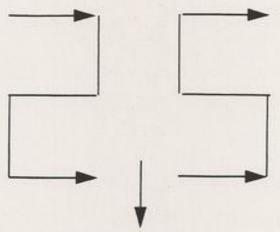
$$1 \div .5 = 2$$

$$1 \times .5 = 5$$

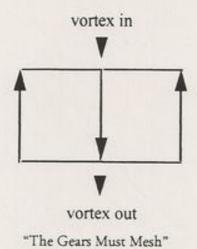
$$1 \div 2 = 5$$

2 represents Doubling, whereas .5 represents Halving.

Two and five are the only numbers which are attached to the number one. When 2 and 5 (doubling and halving) join together, the result is Unity. The number 2 is actually a mirror image of the number 5, and when they join together form a figure '8', a symbol for *infinity*. (please see following page)



2 and .5 combine to form a meshing gearwork..."infinity's epicenter"...the "Cosmic Eggbeater" which creates a vortex in and vortex out.



"Infinity's Epicenter"

2 " and .5" create the base ten decimal system

2° and .5° create the base ten decimal system and the infinitely revolving, spiraling Doubling Circuits in opposite directions (see Digital Root column), which emanate from the source, the axis, the origin (2° and .5°).

Exponent	Value	Digital Root
.513	.0001220703125	5
.512	.00024414065	1
.511	.00048828125	2
.510	.009765625	4
.59	.001953125	8
.51	.00390625	7
.5'	.00178125	5
.56	.015625	1
.55	.03125	2
.5*	.0625	4
.53	.125	8
.5 ²	.25	7
.51	.5	5
2° ∞ 5°	1 - Axis	1 - Origin
21	2	2
22	4	4
23	8	8
2*	16	7
25	32	5
26	64	1
2'	128	2
28	256	4
29	512	8
210	1024	7
211	2048	5
212	4096	1
213	8192	2

Motion begins and ends at the number 1.

Koru

The Spirals

Koru is a Maori word for a spiral pattern whose shape is based on the new fronds of the New Zealand punga tree. Koru represents new life and new beginnings. This symbol is used in Maori art and as the symbol for Air New Zealand.

The spiral symbolizes life, growth, and movement. "Koru" is the Maori name for spirals. The koru is a scroll shape, like an unfurling leaf of a New Zealand fern plant. In Maori thought, the koru is a path, a reaches towards the light, a striving for perfection, an ascension. Thus, the spiral shape is a sacred shape. The koru also symbolizes the cycle of birth and re-birth...of continuous, new life, renewal and hope. The Spiral is one of the most basic of geometric patterns of biological and physical phenomena. A primary example is the Golden Mean Spiral, a common biological spiral pattern of unfolding which is a function of the Fibonacci Sequence and the "golden" proportions of the Golden Mean Rectangle. In physics, the descending spiral is a path which is inscribed on the surface of an invisible cone, the path followed by matter and energy in such phenomena as galactic and atomic structures, tornadoes, vortexes of all types. Recognition of the importance of spirals has spanned religions, cultures and millennia. For example, in the British Isles, the Hallristingnor rock carvings show images of spirals; the Celtic people used the spiral image, and the English Rose is a spiral image. The Caduceus of Hermes portrays spiraling serpents. The swastika pattern from several cultures portrays 4 spiraling arms, whirling about a center. The dances of whirling dervishes embodies the concept of the spiral. In Maori art, some koru have more than two spiral arms (some have four or more than four).

The Rodin Torus contains spirals within its field. For example, the Nested Vortices are spirals. The Aetheron Flux Monopole Spires traverse the Skin of the Rodin Torus in sweeping spirals. The Doubling Circuits spiral about the tube of the tube torus, encircling the central, Aeth Coalescence. The Black Hole/White Hole system is controlled by Vortex spirals.

Lambdoma Matrix

Both the Lambdoma Matrix and the Rodin Torus model the harmonics of music, sound and energy. The Lambdoma Matrix is a Torus.

The Lambdoma Matrix. A matrix of ratios attributed to Pythagoras. The Lambdoma Matrix is actually a Tetraktys, a pattern revered by the Pythagoreans. The Lambdoma Matrix is Tetraktys that represents the harmonics of music (sound) and other energy.

- a) The Right arm of Lambdoma Matrix (1/1, 2/1...). This represents a perfect <u>Harmonic Series</u> in music, from the first (1/1) to the 4th (4/1) overtone. These are the ratios of overtone wavelengths to the fundamental tone wavelength.
- b) The Left arm of Lambdoma Matrix (1/1, 1/2...). This is the undertone series and sub-harmonic to the right leg of the matrix..

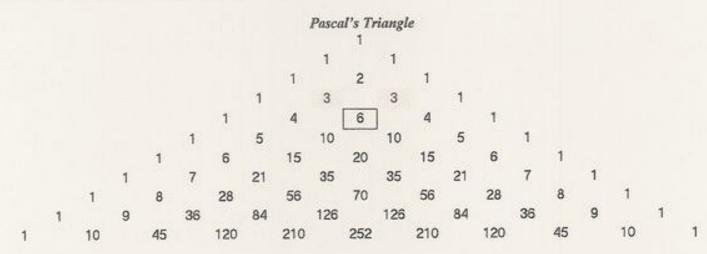
A 16 x 16 Lambdoma Matrix

The Lambdoma Matrix and the Rodin Torus. The Horizontal Axis of the Rodin Torus (the 4-8-3-7-2-6-1-5-9 loop) is equivalent to the right leg of the Lambdoma Matrix. Therefore, both the Lambdoma Matrix and the Rodin Torus model the harmonics of music, sound and energy. The Lambdoma Matrix is a Torus.

The Lambdoma Matrix and Pascal's Triangle

The Lambdoma Matrix also is modeled by Pascal's Triangle.

For review, here is a version of Pascal's triangle:

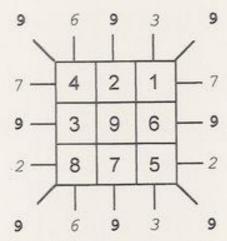


Each number element in the cells of Pascal's Triangle are generated by adding two numbers (the two numbers diagonally and above the element). For example, 6 (highlighted near center) is the sum of its two upper left and right diagonals, 3 and 3.

Consider The Lambdoma Matrix below:

Each lattice position in the Lambdoma Matrix is occupied by a number ratio (e.g., 1/2). There are blank spaces between adjacent ratios within rows, and ratios in the lattice always line up along diagonals, giving a staggered appearance for ratios in adjacent rows of the lattice. The number ratios line up along the rows, forming number ratio strings. The number ratio strings are composed of numerator strings and denominator strings. The number strings are not static, they are dynamic, moving and sliding strings of numbers:

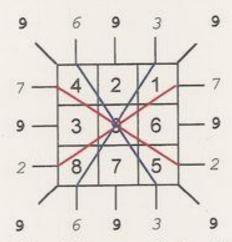
Above is the 2nd row of the Lamdoma Matrix. The red arrows show direction of Numerator String movement (the numbers slide to the left). The <u>black arrows</u> show the direction of the <u>Denominator String</u> movement (the number string slides to the right). As the number strings slide in contradirection, new number combinations appear (2/2) as numerators (e.g., 2 from the 2/1 proportion in Row 2) come to rest over new Denominators (the denominator 2 from the 1/2 proportion in Row 2). All numbers of the Triangle (Lambdoma matrix = Pascal's triangle) are formed simultaneously in this fashion, infinitely.



Sums (using Horizontal Addition) of vertical, horizontal and diagonal elements of one of the nine-numbered Nested Vortices of the Rodin Torus. Sums and direction of summation appear around periphery of Nested Vortex.

a) All number strings emanating from the center (9) have a sum = 9.

b) The sums of the other number strings are in alternating order with the number 9 emanationsequences. There are two sets of these alternating sequences [(7-9-2), (2-9-7)] and [(3-9-6), (6-9-3)]. These two strings interact with the central nine in an oscillating manner (se below).



Sums arranged around Nested Vortex reveal their oscillation about the 9-axis

This movement of Numerator and Denominator number strings allows numbers to flow and interact with each other. Numerators and denominators (along rows of the matrix) are strings of numbers which move from right to left and left to right, respectively. Sliding the numerator number strings over the top of the denominator strings in one direction (right). Slide the denominator strings under the numerator strings in the opposite direction as the numerator strings (e.g., left). If the two number strings slide only one lattice position to the left or right, respectively...

a new ratio is formed as a new numerator comes to a position over a new denominator that is exactly the same ratio that appears below it in the triangle!

This is the same mechanism used in Pascal's Triangle to create new numbers in larger triangles.

Magic Squares

A Magic Square consists of a set of whole numbers arranged in a square configuration so that the sum of the numbers is the same for each row, column and diagonal. Some Magic Squares have special requirements, such as using only consecutive numbers.

People have been fascinated by Magic Squares for millennia. Magic Squares are considered to be sacred, powerful symbols by many of our oldest spiritual traditions and societies: Islamic, Indian, Jewish, Celtic, Tibetan, Buddhist. The ancient Chinese related Magic Squares to good luck. The Chinese squares were three-by-three (3 rows x 3 columns), using all of digits (1-9) only once. Here is an example of a Chinese Magic Square (the principles are used in harmonious architectural designs):

4	9	2
3	5	7
8	1	6

Chinese style Magic Square. Nine numbers (from 1-9) are arranged in 3 rows and 3 columns. Each number is used only once. The vertical, horizontal and diagonal sums are all equal (in this example the sum = 15).

The Rodin Torus Number Map is composed entirely of two types of Nested Votices:

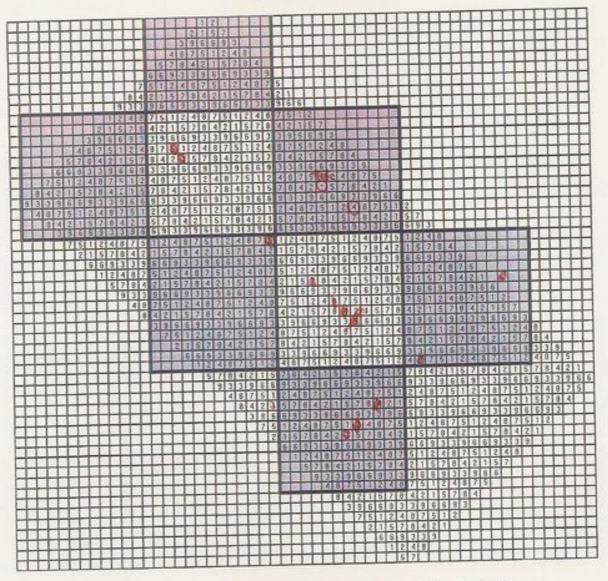
5	7	8
6	9	3
1	2	4

4	2	1
3	9	6
8	7	5

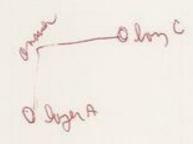
Nested Vortices have configuration similar to the Magic Square.

Although these numbers are not the typical Chinese style Magic Squares, these Nested Vortices have their own Magic-Square like qualities (continued next page).

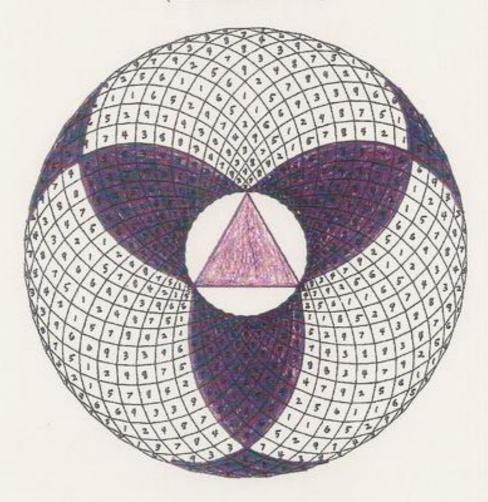
Toroid Map Polarized by the Triad



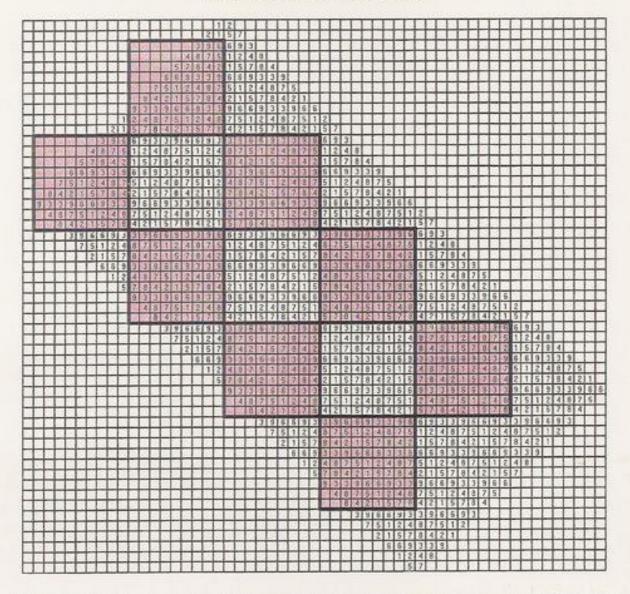
Twelve × Twelve Magic Squares in the Number Map of the Rodin Torus.



The Rodin Torus Polarized by the Triad (Three creates 12 = Three)



Toroid Map Polarized by the Tetrad

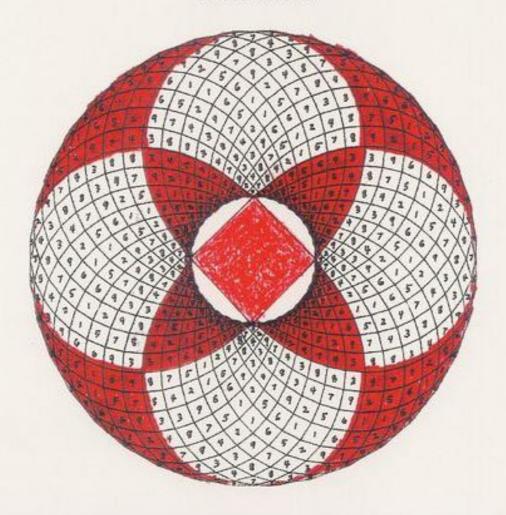


Nine × Nine Magic Squares in the Number Map of the Rodin Torus. There are a total of 16 Magic Squares in this version of the tetragonally polarized Rodin Torus (8 are colored red and 8 are not colored). Can you discover any magic relationships in these 9 × 9 Magic Squares?

By rolling up this rectangular plane of numbers into a cylinder, one can then grasp the two ends of the cylinder, bend the ends around towards each other until they join, creating a Tube Torus.

Please refer to the Toroidal Magic Squares equivalent of this map, on the next page.

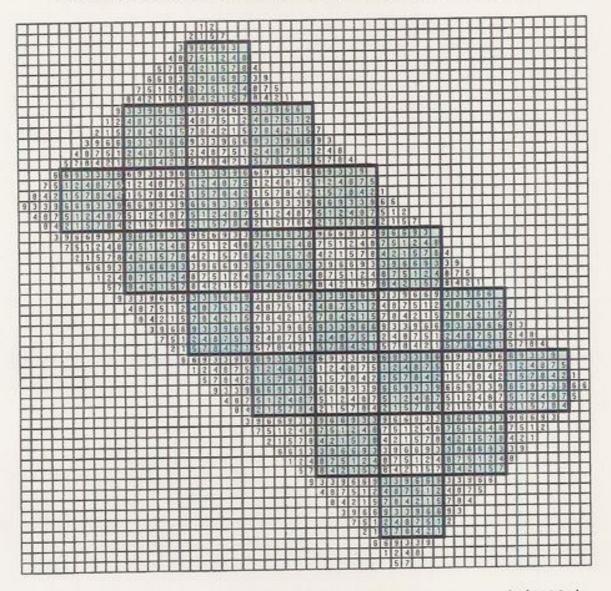
The Tetrad-Polarized Torus (Four creates Nine)



9 by 9 Magic Squares of opposing polarity are mapped onto the Rodin Torus. The central square creates the 81-unit Magic Squares.

(Created from the Number Map on the previous page).

A Toroidal Flower of Life - Number Map Polarized by Fractal Star of David

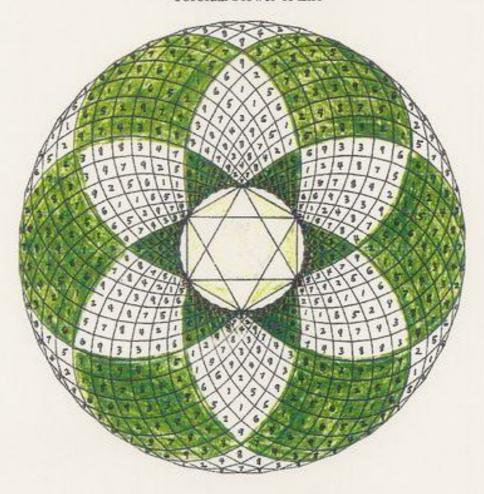


Six × Six Magic Squares in the Number Map of the Rodin Torus. There are a total of 36 Magic Squares in this version of the hexagonally polarized Rodin Torus. There also are 36 squares each per Magic Square. The horizontal sum of all 36 numbers always = 9. The horizontal sum of each row always = 9. The horizontal sum of the columns oscillates between the values of 6 and 3. The horizontal sum of the 4 numbers in the center of each Magic Square is always = 9. The sum of any 2×2 square, any 4×4 square always = 9. Can you find any other magic relationships in these squares?

By rolling up this rectangular plane of numbers into a cylinder, one can then grasp the ends of the cylinder, bring them around towards each other and join them, making a Tube Torus.

Please refer to the Toroidal Magic Squares equivalent of this map, on the next page.

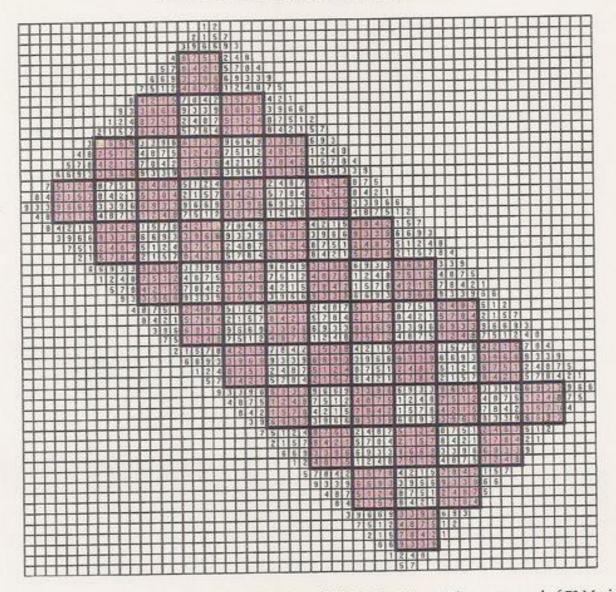
Toroidal Flower of Life



6 by 6 Magic Squares of opposing polarity (colored green vs not colored) are mapped onto the Rodin Torus, creating a hexagonally polarized, fractal, toroidal Flower of Life. The central Star of David creates the Magic Squares.

(Created from the Number Map on the previous page.)

Toroid Number Map Polarized by the Ennead



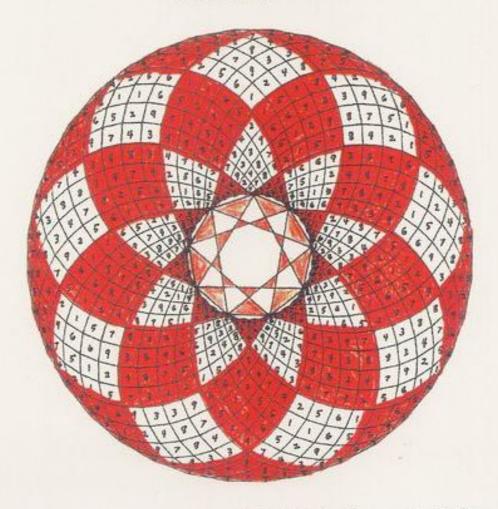
Four × Four Magic Squares in The Number Map of the Rodin Torus. There are a total of 72 Magic Squares (4×4) in the version of the Number Map. The Number Map is polarized by a fractal Ennead (please see next page).

There are 16 numbers per Magic Square. The horizontal sum of the 16 numbers always = 9. The horizontal sum of the rows oscillates between the values of 6 and 3. Can you find the other magic Square attributes of these Magic Squares?

By rolling up this rectangular plane of numbers into a cylinder, one can grasp the two ends of the cylinder, bend them around towards each other until they join, creating a Tube Torus.

Please refer to the Toroidal Magic Squares equivalent of this map, on the next page.

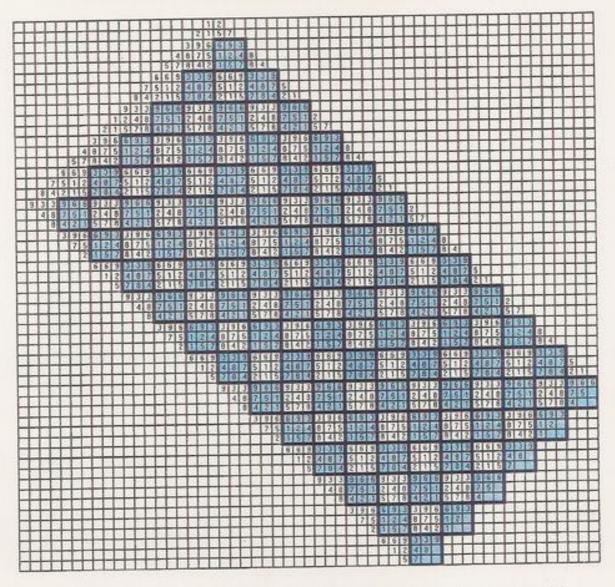
Toroidal Ennead Flower



4 by 4 Magic Squares of opposing polarity (colored red vs not colored red) are mapped onto the Rodin Torus. The central Ennead creates the Magic Squares.

(Created from Number Map of the previous page).

Twelvefold Toroidal Flower of Life - Number Map Polarized by Twelve-Pointed Star



Three × Three Magic Squares in the Number Map of the Rodin Torus. There are 144 of these Magic Squares on the skin of the Torus (72 positive polarity are shaded cyan; 72 negative polarity are not shaded).

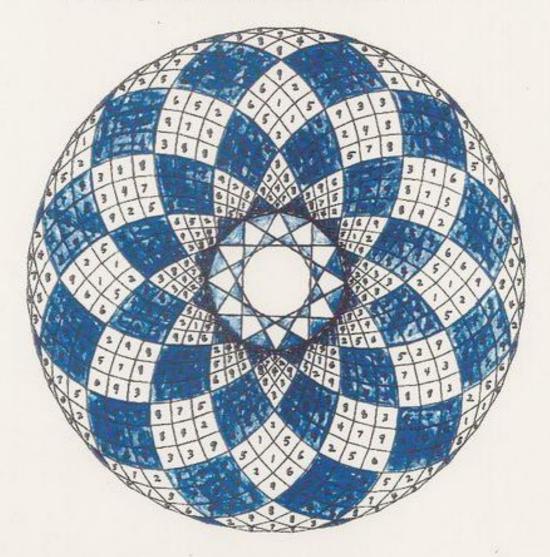
- The sum of the 9 numbers always equals the number in the center of the square.
- 2. The sum of the 8 numbers which the surround the central number of a Magic Square always = 9.
- 3. The central numbers create significant patterns and sequences in relation to other central numbers.

Can you discover other magic relationships in these squares?

By rolling up this rectangular plane of numbers into a cylinder, one can then grasp the ends of the cylinder, bring them around towards each other and join them, making a Tube Torus.

Please refer to the Toroidal Magic Squares equivalent of this map, on the next page.

A Twelve-pointed Flower of Life - Polarization by Nine

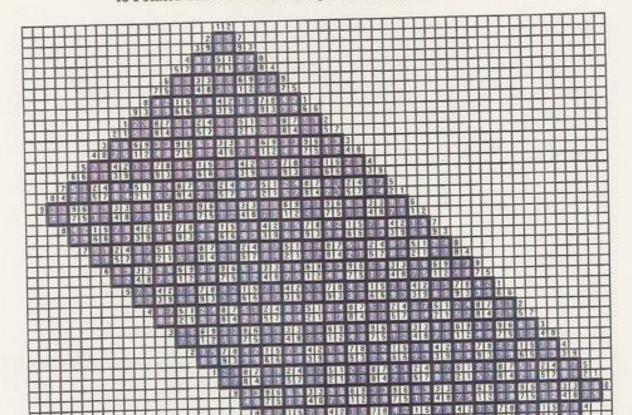


3 by 3 Magic Squares of opposing polarity (+ colored blue) are mapped onto the Rodin Torus. There is a Twelve-Pointed Star in the middle. The central square number for each 9-unit square is significant.

(Created from the Number Map on the previous page.)

Notes:

- The central squares numbers within each of the 9-square units (3 x 3) follow opposing, circular, repeating 2-8-5 circuits along the Horizontal Axis. The white squares (negative polarity) follow opposing, circular, repeating 1-7-4 circuits for the central number squares along the Horizontal Axis.
- 2. The central square numbers also form the Doubling Circuits (1-2-4-8-7-5) number sequence.
- 3. The central squares also form 3, polar pair group sequence-circuits (negative 7 positive 2; negative 1 and positive 8; negative 4 and positive 5).



18-Pointed Star creates doubled pairs (Tetrad) in Number Map

Two × Two Magic Squares in the Number Map of the Rodin Torus. There are 324 (=9) of these Magic Squares on the skin of the Torus (there are 162 each, for positive and negative polarity).

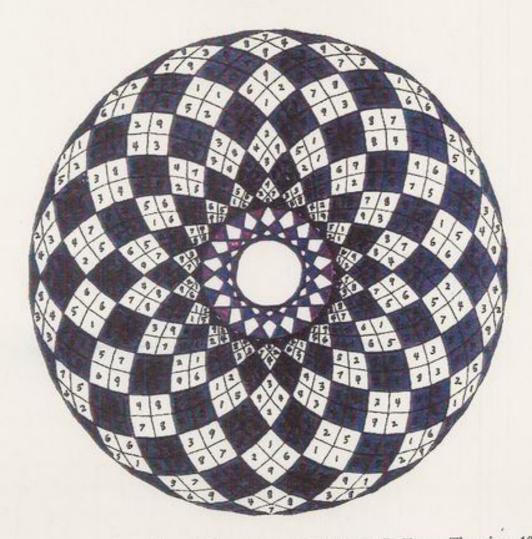
- 1. The sum of the four numbers in the square always = 9.
- 2. The sum of the two diagonal elements of each square forms a Polar Number Pair.

Can you discover other magic relationships in these squares?

By rolling up this rectangular plane of numbers into a cylinder, one can then grasp the ends of the cylinder, bring them around towards each other and join them, making a Tube Torus.

Please refer to the Toroidal Magic Squares equivalent of this map, on the next page.

18-Pointed Isosceles Star Polarizes the Rodin Torus



2 by 2 Magic Squares of opposing polarity are mapped onto the Rodin Torus. There is an 18-Pointed Star in the central hole of the Torus. The Star was created by a) inscribing an isosceles triangle within the center of the torus and b) rotating the isosceles triangle on the 9-axis around that central circle (i.e., the Horizontal Axis of the Rodin Torus) at equidistant points. The horizontal addition sum of the four numbers per square always = 9.

(Created from the Number Map on the previous page.)

Merkaba

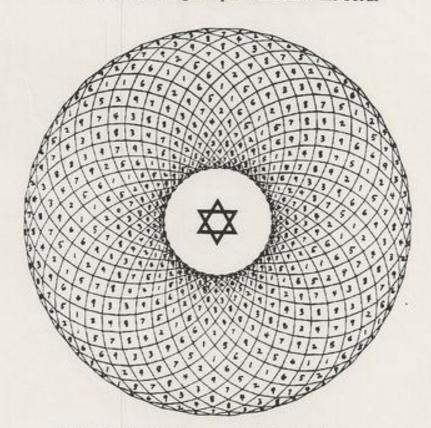
The Rodin Torus is a Merkaba

In ancient Egyptian, Merkaba refers to a human light-body vehicle for the soul.

The Merkaba is a Star Tetrahedron, the intersection of two tetrahedron-shaped fields of energy of opposing polarity (male and female, positive and negative). In the Keys of Enoch, J. J. Hurtak describes the meaning of the Merkaba as the "Vehicle of Vehicles" which appears in a myriad of forms and colors. The Merkaba is a vehicle of light that humans can create and utilize. The science of the Merkaba is quite vast and ancient, and according to Drunvalo Melchizedek, is a science which is practiced throughout the universe.

At the heart of the Rodin Torus, at the very center, surrounding the Aeth Coalescence is a spinning Merkaba. The Merkaba creates the Torus. The Torus is one aspect of the Merkaba science. The spinning Merkaba creates the Aetheron Flux Monopole Emanations. The Rodin Torus is a model for the ascension of matter and spirit.

The Merkaba (the Cosmic Eggbeater) is the mechanism that creates the Vortices and Emanations of the Rodin Torus and the basic hexagonal polarization of the Torus



A Merkaba Star Tetrahedron at the Center of the Torus

Multiplication Series

In Polarized Fractal Geometry, there are nine simple Multiplication Series (one Series for each discrete number 1-9). These Multiplication Series are based upon reducing all products to single digits via Horizontal Addition.

In a series, a number from 1-9 is multiplied by the numbers 1-9 and horizontal addends are obtained. Multiplication series identify the Polar Pairs (numbers whose sum = 9). The Polar Pairs are: 1 and 8; 2 and 7; 3 and 6; 4 and 5. Please refer to the following page for a table showing the Multiplication Series.

Significance of the Multiplication Series. The Multiplication Series form meaningful number sequences. The 9-digit Multiplication Series form number sequences that are identical, but in opposing direction for the Polar Number pairs. Some of these number sequences from the Multiplication Series can be found on the skin (i.e., in the Map of Numbers) of the Rodin Torus. For example:

- a) the Multiplication Series for the Polar Pair [1,8] is: (1-2-3-4-5-6-7-8-9) and (8-7-6-5-4-3-2-1-9) for the number 1 and the number 8, respectively. This is the same number sequence as for the Vertical Axis of the Rodin Torus.
- (b) the Multiplication Series for the Polar Pair [4,5] is: (-8-3-7-2-6-1-5-9) and (5-1-6-7-2-3-8-4-9), for the number 4 and the number 5, respectively. This is the same number sequence as for the Horizontal Axis of the Rodin Torus.
- c) The Multiplication Series for the Number 9 (remember, the number 9 has no Polar pair twin) is: (9-9-9-9-9-9-9), demonstrating the principle that the number 9 is immutable, unchanging. Anything multiplied or divided by the number 9 always = 9.

The Multiplication Series for numbers (1-9), for each Polar Pair set of numbers.

The Multiplication Series for numbers (
MULTIPLICATION SERIES PO	R POLAR NUMBER PAIR 1-8
1	8
1×1 = 1	8×1 = 8
1×2 = 2	8×2 = 7
1×3 = 3	8×3 = 6
1×4 = 4	8×4 = 5
1×5 = 5	8×5 = 4
1×6 = 6	8×6 = 3
1×7 = 7	8×7 = 2
700000000	8×8 = 1
1×8 = 8	8×9 = 9
1×9 = 9 MULTIPLICATION SERIES FO	
	7
2	7×1 = 7
2×1 = 2	7×2 = 5
2×2 = 4	7×3 = 3
2×3 = 6	
2×4 = 8	7×4 = 1
2×5 = 1	7×5 = 8
2×6 = 3	7×6 = 6
2×7 = 5	7×7 = 4
2×8 = 7	7×8 = 2
2×9 = 9	7×9 = 9
MULTIPLICATION SERIES FO	OR POLAR NUMBER PAIR 3-6
3	6
3×1 = 3	6×1 = 6
3×2 = 6	6×2 = 3
3×3 = 9	6×3 = 9
3×4 = 3	6×4 = 6
3×5 = 6	6×5 = 3
3×6 = 9	6×6 = 9
3×7 = 3	6×7 = 6
	6×8 = 3
3×8 = 6 3×9 = 9	6×9 = 9
	OR POLAR NUMBER PAIR 4-5
4	5
the state of the s	5×1 = 5
4×1 = 4	5×2 = 1
4×2 = 8	5×3 = 6
4×3 = 3	5×4 = 7
4×4 = 7	5×5 = 2
4×5 = 2	5×6 = 3
4×6 = 6	(17)(27)(17)
4×7 = 1	5×7 = 8
4×8 = 5	5×8 = 4
4×9 = 9	5×9 = 9
	ERIES FOR NUMBER 9
	9
	1 = 9 2 = 9
	2 = 9 3 = 9
	4 = 9
	5 = 9
100	6 = 9
1000	7 = 9
	8 = 9
9X	9 = 9

Table of	Expo	onential	Val	ues
----------	------	----------	-----	-----

11	21	31	41	51	61	71	81	91
12	22	3 ²	42	52	62	7 ²	8 ²	92
13	23	33	43	53	63	73	83	93
14	24	34	44	54	64	74	84	94
15	25	35	45	55	65	75	85	95
16	26	36	46	56	66	76	86	96
17	27	37	47	57	67	7'	87	97
18	28	38	48	5 ⁸	68	78	8 ⁸	98
1*	2*	39	4°	5°	6°	7°	8*	99

reduces to

Axis	Left DC	Groove	Weaver	Right DC	Groove	Weaver	Oscillator	Axis
1	2	3	4	5	6	7	8	9
1	4	6	7	7	9	4	1	9
1	8	9	1	8	3	1	8	9
1	7	3	4	4	6	7	1	9
1	5	6	7	2	9	4	8	9
1	1	9	1	1	3	1	1	9
1	2	3	4	5	6	7	8	9
1	4	6	7	7	9	4	1	9
1	8	9	1	8	3	1	8	9

In above table: Read $\underline{\text{down}}$ the columns for the Number Sequence for X^n series Read $\underline{\text{across}}$ the rows for the Number Sequence for N^n series.

and, after cross multiplication and horizontal addition of numbers in cells of above matrix lacktriangle

1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	. 8	. 9
.1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9
1	2	3	4	5	6	7	8	9

Multiplication Series are Unbroken Rings Which Begin Where They End

COUNTER-CLOCKWISE ROTATION Multiples of Eight $1 \leftarrow 2 \leftarrow 3 \leftarrow 4 \leftarrow 5 \leftarrow 6 \leftarrow 7 \leftarrow 8 \leftarrow 9$ $1 \leftarrow 2 \leftarrow 3 \leftarrow 4 \leftarrow 5 \leftarrow 6 \leftarrow 7 \leftarrow 8 \leftarrow 9$ $1 \leftarrow 2 \leftarrow 4 \leftarrow 6 \rightarrow 5 \rightarrow 4 \rightarrow 3 \rightarrow 2 \rightarrow 1 \rightarrow 9$ Multiples of Seven $2 \leftarrow 4 \leftarrow 6 \leftarrow 8 \leftarrow 1 \leftarrow 3 \leftarrow 5 \leftarrow 7 \leftarrow 9$ $1 \leftarrow 7 \rightarrow 5 \rightarrow 3 \rightarrow 1 \rightarrow 8 \rightarrow 6 \rightarrow 4 \rightarrow 2 \rightarrow 9$ Multiples of Five $1 \leftarrow 4 \leftarrow 8 \leftarrow 3 \leftarrow 7 \leftarrow 2 \leftarrow 6 \leftarrow 1 \leftarrow 5 \leftarrow 9$ $1 \leftarrow 5 \rightarrow 1 \rightarrow 6 \rightarrow 2 \rightarrow 7 \rightarrow 3 \rightarrow 8 \rightarrow 4 \rightarrow 9$ Multiples of Six $1 \leftarrow 3 \leftarrow 6 \leftarrow 9 \leftarrow 3 \leftarrow 6 \leftarrow 9$ $1 \leftarrow 6 \rightarrow 3 \rightarrow 9 \rightarrow 6 \rightarrow 3 \rightarrow 9 \rightarrow 6 \rightarrow 3 \rightarrow 9$

Linear Halving and Doubling

halve		double
9←		
4 ←	8	→ 7
8 ←	7	\rightarrow 5
3 ←	6	$\rightarrow 3$
7 ←	5	$\rightarrow 1$
2←	4	$\rightarrow 8$
6←	3	→6
1 ←	2	$\rightarrow 4$
5 ←	1	$\rightarrow 2$

The central column of numbers is the Original Linear Number Sequence 1-9.

The numbers are either halved (left) or doubled(right), and reduced to a single digit via Horizontal Addition.

Notes:

 Each number in the central column sequence (1-9) produces a unique, halving-doubling pair of numbers (left and right columns, respectively). The number pairs produced are from the opposite Family Number Group (except of the 3-9-6 Group). For example, the halving/doubling pair produced by 1 is (2, 5).

 The number sequence for halving (left column) corresponds to the Horizontal Axis of the Rodin Torus (and to a series of harmonic overtones: 4-8-3-7-2-6-1-5-9). The Doubling Circuit is embedded in this sequence also.

3. The number sequence for doubling (right column) produces a "staggered" Horizontal Axis (2-4-6-8-1-3-5-7-9). The numbers in the sequence are staggered by one (in other words, the numbers in the sequence, 4-8-3-7-2-6-1-5-9, appear in the sequence above separated by two spaces.

Linear Quartering and Quadrupling

$$\frac{\text{quart} - \text{quadrup}}{9 \leftarrow 9 \rightarrow 9}$$

$$2 \leftarrow 8 \rightarrow 5$$

$$4 \leftarrow 7 \rightarrow 1$$

$$6 \leftarrow 6 \rightarrow 6$$

$$8 \leftarrow 5 \rightarrow 2$$

$$1 \leftarrow 4 \rightarrow 7$$

$$3 \leftarrow 3 \rightarrow 3$$

$$5 \leftarrow 2 \rightarrow 8$$

$$7 \leftarrow 1 \rightarrow 4$$

The central column of numbers is the Original Linear Number Sequence 1-9.

The numbers are either quartered (left) or quadrupled(right), and reduced to a single digit via Horizontal Addition.

Notes:

 The Number Sequences are the same, yet reversed in relation to halving/doubling in the previous example.

Linear Eighths and Octupling

eighth	- octuple
9 ←	9 -> 9
1 ←	8 -> 1
2 ←	$7 \rightarrow 2$
3 ←	$6 \rightarrow 3$
4 ←	5 → 4
5 ←	4 → 5
6 ←	3 → 6
7 ←	2 -> 7
8 ←	$1 \rightarrow 8$

The central column of numbers is the Original Linear Number Sequence 1-9. The numbers are either divided by eight (left) or multiplied by eight (right), and reduced to a single digit via Horizontal Addition.

Notes:

Each number in the Original Sequence (central column) produces its Polar Pair number twin, which
results in a linear sequence (1-9) equivalent to the Vertical Axis of the Torus, and the Arabic Alphabet
on both the left and right.

Linear Unity

$$\frac{\text{divide} - \text{multiply}}{9 \leftarrow 9 \rightarrow 9}$$

$$8 \leftarrow 8 \rightarrow 8$$

$$7 \leftarrow 7 \rightarrow 7$$

$$6 \leftarrow 6 \rightarrow 6$$

$$5 \leftarrow 5 \rightarrow 5$$

$$4 \leftarrow 4 \rightarrow 4$$

$$3 \leftarrow 3 \rightarrow 3$$

$$2 \leftarrow 2 \rightarrow 2$$

$$1 \leftarrow 1 \rightarrow 1$$

The central column of numbers is the Original Linear Number Sequence 1-9.

The numbers are either divided by one (left) or multiplied by one (right),
and reduced to a single digit via Horizontal Addition.

Notes:

- Multiply or divide by one, there is no change in the number sequence (1-9).
- 3. The Horizontal Sum will depend upon the number of decimal places allowed into the calculation.
- 4. The value for the Horizontal Sum oscillates according to the [1-4-7] Family Number Group. In other words, as increasing number of decimal places are added to the equation, the sum takes on one of three, successive values:

For example: "4 divided by 3 = 1.33333333333333 etc."

Multiplication Tables

		I. Th	e Standa:	rd Multip	lication 7	Table		
1	2	3	4	5	6	7	8	9
2	4	6	8	10	12	14	16	18
3	6	9	12	15	18	21	24	27
4	8	12	16	20	24	28	32	36
5	10	15	20	25	30	35	40	45
6	12	18	24	30	36	42	48	54
7	14	21	28	35	42	49	56	63
8	16	24	32	40	48	56	64	72
9	18	27	36	45	54	63	72	81



	11.	The "Hor	izontai A	aaition	мингри	cation 1a	wie	
1	2	3	4	5	6	7	8	9
2	4	6	8	1	3	5	7	9
3	6	9	3	6	9	3	6	9
4	8	3	7	2	3	8	4	9
5	1	6	2	7	3	8	4	9
6	3	9	6	3	9	6	3	9
7	5	3	1	8	6	4	2	9
8	7	6	5	4	3	2	1	5
9	9	9	9	9	9	9	9	9

note: numbers in this table are the horizontal addends of the numbers appearing in the Standard Multiplication Table above.

Musical Octaves

- The tones of a standard Musical Octaves are in a logarithmic scale of frequencies.
- · Each increase in one octave is equivalent to a doubling of the frequency value.
- The frequency of each C note can be expressed as a power of 2. Thus, the music scale is logarithmic, with base = 2.
- The sequence of octaves is the Doubling Circuit of the Rodin Torus.

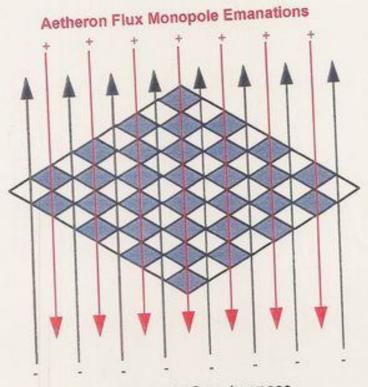
Table of Tones in a Series of Tonal Octaves

Logarithm	Frequency (hz)	Addend	Note	Octave
21	2	2	С	1
22	4	4	C	2
23	8	8	С	3
24	16	7	С	4
25	32	5	С	5
26	64	1	С	6
27	128	2	С	7
28	256	4	С	8 (middle C)
29	1024	8	С	9
210	2048	7	С	10
211	4096	5	С	11
212	8192	1	С	12

The sequence of numbers in the Doubling Circuit (1-2-4-8-7-5, shaded in blue) is a function of the Musical Octaves doubling process.

Negative Draft Counterspace

The linear Aetheron Flux Monopole Emanations are the cause, and the linear Negative Draft Counterspace is the result. The Emanations are positive, the Counterspace flow is a negative draft. Negative Draft Counterspace is another name for Gravity, and is the explanatory mechanism for Gravity.



Negative Draft Counterspace

Emanations are shown in red arrows, rarefying the Skin of the Rodin Torus, creating the Negative Draft Counterspace (black arrows) (a contra-motion mechanism) and Nested Vortices.

The phenomenon of Negative Draft Counterspace imparts motion as a higher potential seeks a lower potential, creating magnetic field flows.

Negative Number Nine

Negative Number Nine is the shaft which draws inwards towards the Primal Point of Unity.

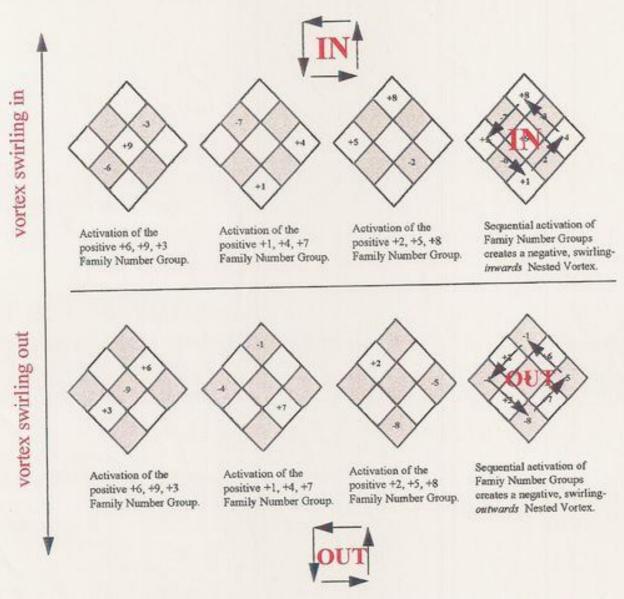
Negative Number Nine represents Gravity (the negative Transparent Z-axis). Negative Number 9 is always the pivot in a positive swirling inwards Nested Vortex.

Nested Vortices

A Nested Vortex is analogous to a sunspot on the surface of our Sun. The Nested Vortices exist on the Skin of the Rodin Torus and are created by the sequential, phased-array activation of the 3 Family Number Groups by the Aetheron Flux Monopole Emanations. These vortices are funnels which feed into the Primal Point of Unity. There are two types of Nested Vortices:

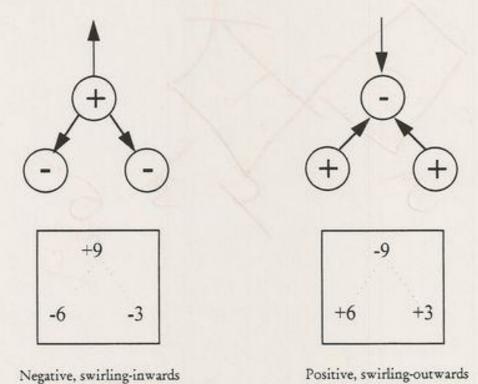
Negative (swirling inwards) - funnels which travel into the Primal Point of Unity and terminate there.

Positive (swirling outwards) - funnels which travel out of the Primal Point of Unity.



The two types of Nested Vortices (top = negative, swirling in; bottom = positive, swirling out). A spiraling, funneling action is created by the activation of the Family Number Groups in succession, as shown above. The limits of the diamond shape define the boundary condition for the vortex.

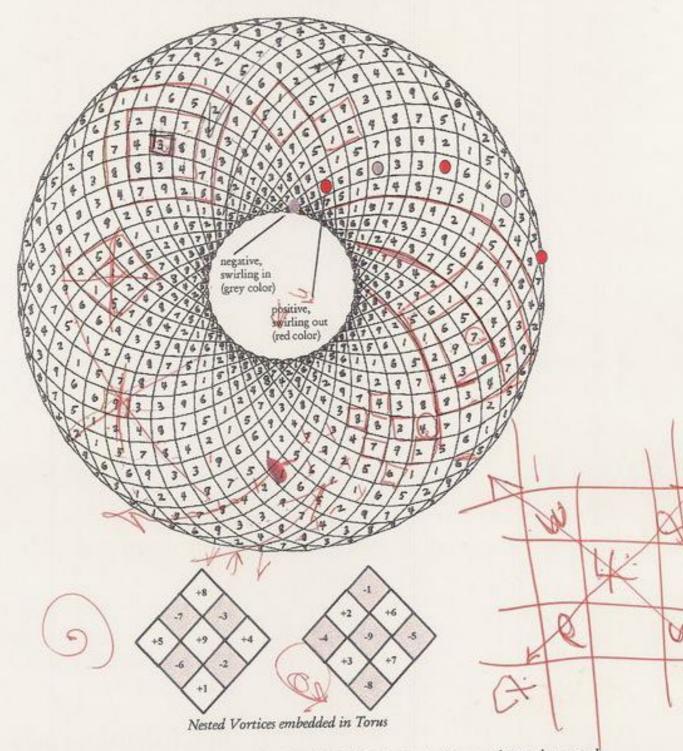
Elsewhere in this glossary, the Nested Vortices can be seen as the building blocks of the Aetheron Flux Monopole Spires. The polarity relationship between the number 9 and the numbers (3,6) within the Nested Vortices determines whether the vortex funnel spirals into the Primal Point of Unity or out away from the Primal Point of Unity.



Nested Vortice Sunspot

Nested Vortice Sunspot

Polarization of the Nested Vortices



Nested Vortices are in alternating sequence within a Doubling Circuit. In the diagram above, the central number in the Nested Vortices (+9 or -9) of one Doubling Circuit are highlighted with red and/or gray dots. These dots lie along the Equipotential Major Groove, between the Left and Right Doubling Circuits.

Newton's Laws of Motion

Newton's First Law: The Law of Inertia

· "A body remains at rest until acted upon by an external force".

Newton was wrong. 1) No objects are ever at rest, they are only perceived to be at rest. 2) All objects are always influenced by external forces, hence they always are in motion and not at rest. It simply is not possible for an object to exist without external forces "acting upon" that existence, therefore it is not possible to exist without motion. 3) All objects are in a state of physical change, hence they are in motion and only apparently at rest.

Is anything really at rest, or does it just appear to be at rest? Our galaxy is hurtling through space...can a person within a speeding motor car really be thought to be a "body a rest"? Newton's law is unable to fully bridge the dimension of time...to account for a periodicity of movement, a periodicity which is beyond perception or measurement. Oscillation and movement are common phenomena...what may appear to be at rest "now", may be actually in periodic movement on a time scale that is not measurable. Newton's law ignores the fact that an object, apparently still and unmoving, in reality is a teeming mass of oscillating and moving atoms and electrons. It simply is not possible for an object to exist without external forces "acting upon" that existence. For example, a human being must assimilate oxygen, carbon, and water molecules from its environment (breathing, eating, drinking). We rely upon receiving sound and light stimuli for their communication and navigation. All objects are always influenced by external forces, hence they always are in motion and not a t rest. The motion may or may not be perceived by humans.

However, there does exist a sole point of rest within the Rodin Torus model of a black hole/white hole. The point of rest is the "Aeth Coalescence". And, the 9-axis is unmoving. However, Newton was incorrect, because all other matter is in perpetual motion. Matter is in motion as it moves along spiraling paths around the center of the Torus, about the Aeth Coalescence itself. The Aetheron Flux Monopole Emanations are the external force that imparts momentum and spin to matter.

 "An object in motion continues moving in a straight line at a constant velocity until acted upon by a force."

No physical matter moves along a straight line. The motion of all objects is curved. All direction is defined by spirals. However, the Aetheron Flux Monopole Emanations move in straight lines, and penetrate all matter.

Newton's Second Law: Accelerated motion.

 "Acceleration of an object is directly proportional to the net force acting on the object, and inversely proportional to its mass."

Newton's Third Law: Action - Reaction.

 "Whenever one object exerts force on a second object, the second object exerts an equal and opposite force on the first."

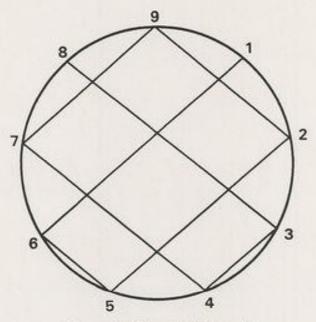
Negative Draft Counterspace is created on the skin of the Torus by the rarefying action of the Aetheron Flux Monopole Emanations (reaction/action) where:

Action = (Emanate) and Reactions = (Motion, Compression, Decompression, Spin).

Nexus Key

The Nexus Key refers to the number patterns encoded within the Symbol of Enlightenment. The Nexus Key is a special sequence of numbers of the Skin of the Rodin Torus. The number sequence runs in a counter-diagonal direction in relation to the Doubling Circuits and Equipotential Major Grooves. The Nexus Key number sequence encodes all of the other axes and number sequences on the Skin of the Rodin Torus. The repeating number sequence for the Nexus Key is: 8-3-4-7-9-2-5-6-1-1-6-5-2-9-7-4-3-8. This sequence of numbers is actually two sequences of the same sequence in mirror image: 8-3-4-7-9-2-5-6-1 is a mirror image of 1-6-5-2-9-7-4-3-8. The primary features of the Nexus Key are:

- a) The Doubling Circuits travel infinitely within a bounded loop, inverting at the Primal Point of Unity
- b) The Equipotential Major Grooves, the gap space between the opposite-moving Doubling Circuits.



Nexus Key Domain Schematic

Nexus Key number sequence traced onto a circle, with numbers placed at 40-degree intervals around the circumference.

Notes: all number sequences of the Rodin Torus can be found in the Nexus Key (see below):

8-3-4-7-9-2-5-6-1-1-6-5-2-9-7-4-3-8-8-3-4-7-9-2-5-6-1-1-6-5-2-9-7-4-3-8 ← (Horizontal Axis, every 2nd #)

8-3-4-7-9-2-5-6-1-1-6-5-2-9-7-4-3-8-8-3-4-7-9-2-5-6-1-1-6-5-2-9-7-4-3-8 ← (Doubling Circuit, every 3rd #)

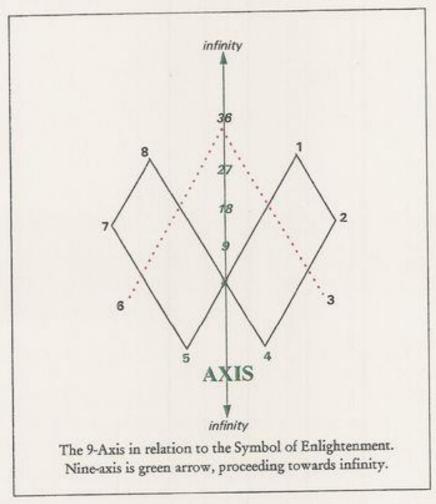
8-3-4-7-9-2-5-6-1-1-6-5-2-9-7-4-3-8-8-3-4-7-9-2-5-6-1-1-6-5-2-9-7-4-3-8 ← (Eqp. Maj. Groove, every 3rd #)

8-3-4-7-9-2-5-6-1-1-6-5-2-9-7-4-3-8-8-3-4-7-9-2-5-6-1-1-6-5-2-9-7-4-3-8 ← (Vertical Axis, every 4th #)

These sequences also run in the opposite direction. Can you find them?

The Nine Axis

The Nine Axis is immutable and constant and allows the creation of order out of underlying chaos, of matter from the Void. The Nine Axis is the product of universal Mind. It is the universal axis about which all dimensions oscillate. Dimensions are nested about the Nine Axis. The Third Dimension is represented by the Doubling Circuits (1-2-4-8-7-5), which form an infinity symbol which intersects the Nine Axis at the Primal Point of Unity (see below). The Fourth Dimension is represented by the Equipotential major Groove, in which 3 and 6 oscillate about the Nine Axis, creating an other-dimensional, energy Field (Omni-Fourth Dimension) which undergirds and supports the existence of matter in the Third Dimension. The Nine Axis is represented by the staff about which serpent coil in Hermes' Caduceus, or the electromagnetic axis that forms the invisible spine of a DNA molecule, or the vertical aspect of the Christian Cross. The Nine Axis represents the energy of the mind of God, God's intent. The harmony of numbers and dimensions oscillating about the Nine Axis are a product of the heart energy of God, God's love.



The number 36 (equal to 9) was selected arbitrarily among multiples of 9 for placement at the 9 position in the diagram above. The Nine Axis is depicted as a bi-directional green arrow, which means that the Nine Axis is a shaft, a shaft which attracts or expels matter and energy towards the Primal Point of Unity (The Aeth Coalescence). The Nine Axes all pierce the center of the Primal Point of Unity, create the Nested Vortices on the Skin of the Rodin Torus. For example, the Negative Number Nine (on the Skin of the Torus) draws matter and energy inwards along the negative-draft, transparent 'Z-axis' (7-9-2-4-6-8-1-3-5 multiplication series). Nine Axis serves as the pivot for the swirling, four-cornered Nested Vortices.

Northern and Southern Hemispheres

Northern and Southern Hemispheres of the Rodin Torus refers to a top and bottom perspective, respectively. All number patterns and phenomena in the Southern Hemisphere are a mirror image of those in the Northern Hemisphere. The two hemispheres are separated by the Torus Equator. Compression in one Hemisphere becomes De-compression in another hemisphere.

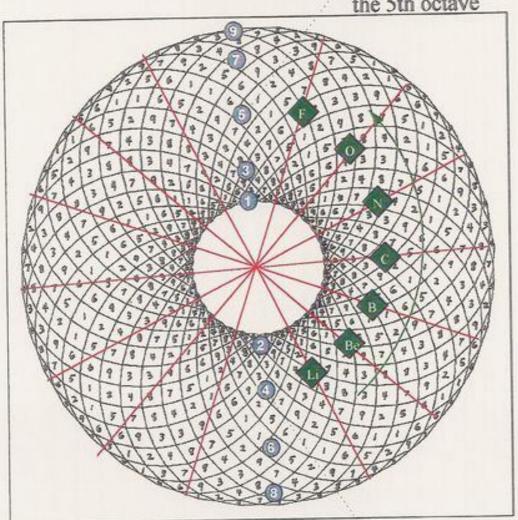
Numbers and Their Meaning

Table of Numbers. The numbers 1-9 and some meanings attached to them.

Number	Selected Meanings
Zero	The point from which the number 1 (and hence the 9-axis) emerges; Naught sign; Nil; Zero is not a number (zero is a placement holder) and represents both the absence and presence of all numbers; not a member of any counting set; the Void; Space; Oblivion; 'Theta' option center of mass; Aeth Coalescence.
1	The Monad; Unity; Oneness; lack of Duality; the Primal Point; Seed; One; God; Pillar; Pole; Singularity; Indivisible; enlivening Spiritual Center; the Non-Manifest Point; the creative power of the "Unmoved Power". Pythagorean meanings were: intellect; being; cause of truth; order; concord; moderation; the instant now in time; ship; chariot; friend;
2	The Dyad; Duality; Binary system; Male/Female; Negative/Positive; Thesis/Antithesis; Ying/Yang; Right hand/Left hand; Spirals; Polarity; Doubling; Halving; Octaves; the Two Pillars of Joachim and Boaz (Hebrew); King/Queen (alchemy); The Christian Cross, the Star of David; the Vesica Pisces; the Dagaz; Order/Chaos; Law("Torah")/Disorder;
3	The Triad; Trinity; Father-Son-Holy ghost; Triangle; All-Seeing Third Eye; Star of David; Bridge (unifying aspect) between dualities; the harmonic impact of unity upon dualism; creation of Spirit out of Matter; creation of the Active out of the Passive; the literal and symbolic sum of the preceding two numbers (unity and duality); in alchemy 1 = active cultur, 2 = passive salt and 3 = number pertaining to heaven.
4	The Tetrad; Tetraktys; the Cross; Square; Tetrahedron; Swastika; Tetrad, God (YHWH, BAHA); Pyramid; Compass directions; Cube; four Seasons; the 4r Elements (Fire, Air, Water, Earth; Matter.
5	The Pentad; Man (1 + 4 = Man); 4 limbs = head = 5; 4 fingers plus thumb = 5; 4 cardinal points plus center = 5; Heirosgamos; Pentagram; Five-Pointed Star (apple core); 5 mediates between 1 and 9; the 5 senses.
6	The Hexad; Star of David; integration of trinaries; union of Fire and Water (Man and Woman); Reconciliation; the Soul; the first perfect number; a Circle; Universe; Health; 6 signs of zodiac over Earth and six signs of zodiac under Earth.
7	The Heptad; Perfect Order; union of 3 and 4; the Seven Wonders; Lucky /; / Celestial
8 .	The Octad; two Squares; Octagon; the intermediate between a Square (terrestrial) and a Circle (Eternal); Regeneration; Eternity; Balance of opposing forces (symbolized by Cadenceus DNA Spirals, Vortex); harmonizes all previous numbers.
9	The Ennead; Attainment; Completion; Fulfillment; the Enneagram; the Nine-Pointed Star Harmony; the unchanging 9-axis; the Master number; 3 Trinities; 9 Gods (Egyptian, Celti- Greek, Christian lore).

Periodic Table of the Elements

Neon (5) starts the 5th octave



Helium (4) starts the 4th octave

There are 9 octaves of 63 elements in the Torus form of Walter Russell's Periodic Table of the Elements. The blue circles above represent the 9 Master Tones (the first tone of each octave). The Master Tones are the 9 inert gases (1 = Alphanon; 2 = Betanon; 3 = Gammanon; 4 = Helium; 54 = Neon; 6 = Argon; 7 = Krypton; 8 = Xenon; 9 = Niton). The 63 elements form a compression spiral that links octaves in numerical sequence at 180 shifts around the torus (above)1-2-3-4-5-6-7-8-9 forms one, large spiral which is smaller in diameter in the center of the Torus, and of maximum diameter at the Equator of the Torus. The green diamonds illustrate the elements of the 4th octave (Lithium, Beryllium, Boron, Carbon, Nitrogen, Oxygen, Fluorine). Each octave is, therefore, one-half a Torus turn as the spiral moves from the center to the Equator (i.e., from compression to de-compression). The red lines indicate the lines of polarization by 4 - 8 - 16 inherent in natural compression ratios. The 63 elements all fall along the spiral arm where it intersects these red lines of polarization.

Period Doubling

Period Doubling is a significant phenomenon observed in relation to the Attractors of Chaos Theory. A Chaos Attractor for a given equation, for example, undergoes significant morphological change as periodic oscillations within the Attractor undergo a doubling process. Period doubling is a universally-observed phenomenon for Attractors of all types, and there apparently are universal constants which define the behavior of Attractors regarding Period Doubling.

For some chaotic systems, as Periodic Doubling is experienced, Torus Attractors of various types are created.

Phyllotaxis

The Rodin Torus models phyllotaxis.

Phyllotaxis is the unfolding of a plant during growth and development along geometrically harmonious and proportional patterns. Many beautiful shapes, complex yet of simple geometric foundation, are easily seen in the plant kingdom. Leaf emergence and seed patterns often follow logarithmic spirals which emanate from a central point or axis.

Pictured below is a simulated pattern for the central part of a daisy inflorescence. The florets that make up this pattern grow at the meeting points of two sets of spirals. These spirals are logarithmic spirals (defined by the Golden Mean Rectangle). One set of spirals moves clockwise in direction, the other counterclockwise. This is a recurrent pattern in nature: spirals moving in opposite directions, the "union of complementary opposites" (Docszy). Docszy, in his book *The Power of Limits*, called this spiral process 'dinergy'. In the Rodin Torus, they can be Doubling Circuits, or other spiraling patterns of numbers.



Phyllotaxis Spiral by Michael Trott using Mathmatica PC software Copyright Wolfram Research, Inc.

A daisy produces florets (and seeds) in a "Torus"

Polarized Fractal Geometry

Polarized Fractal Geometry is the mind of God.

Polarized Fractal Geometry is the science of number theory and geometry. Polarized Fractal Geometry is an ancient and universal science. Polarized Fractal Geometry is another name for Sacred Geometry, the study and modeling of the essential geometric shapes and relationships in the Third Dimension. Numbers have spatial and temporal relationships with each other, and they have functions in the creation of matter. The geometry of these number relationships, coupled with the function or energy of a number are the ultimate definition of the Rodin Torus. The geometric number relationships of Polarized Fractal Geometry are the underpinnings of the universe and the keys to Alchemy. The fractal aspect of Polarized Fractal Geometry lies in the tiling patterns which are possible (the tilings change, but the number sequences and their relationships remain the same). An infinite number of tori are possible. And, the Rodin Torus is a fractal torus attractor, a geometric phase-space, manifesting unit which brings order from underlying Chaos.

Polarized Fractal Geometry is such a vast topic, that to completely define it would require a complete reading of this Glossary just to scratch the surface of this body of knowledge. The important concepts which help to define Polarized Fractal Geometry are:

- · Numbers have one of two Polarities. At essence, this is a binary mathematical system.
- Numbers are archetypes. There are only 9 archetype numbers (1-2-3-4-5-6-7-8-9). This geometry is founded upon the reduction of multi-digit numbers to their single-digit archetype value, using Horizontal Addition.
- Numbers have specific geometric and spatial relationships, to each other and especially to the immutable Number 9.
- Numbers are naturally a trinity. There are three Family Number Groups, each with three unique numbers which are separated by 3 in the linear number sequence (1-2-3-4-5-6-7-8-9).
- · Polarized Fractal Geometry is derived from the Base Ten Counting System
- Numbers arrange in different sequences owing to the fractal nature of the Torus.
- Numbers have temporal relationships to one another, being activated (rarefied) in sequential patterns.
- The number relationships explain the structure of mater and the movement of energy.
- The Symbol of Enlightenment and the Nexus Key model Polarized Fractal Geometry.

Polar Number Pairs

Polar Number Pairs are pairs of numbers whose sum = 9. The Polar Number Pairs are:

[1 and 8] [2 and 7] [4 and 5] [3 and 6]

The numbers can assume either a positive or negative polarity, thereby creating a 8 possible pairs of Polar Numbers:

[+1 and -8] and [-1 and +8] [+2 and -7] and [-2 and +7] [+4 and -5] and [-4 and +5] [+3 and -6] and [-3 and +6]

Notes:

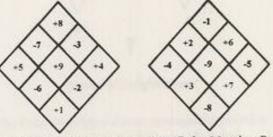
1. The Polar Pairs are mirror images of each other.

The Polar Number Pairs form the basis of Polarized Fractal Geometry, owing to their relationship to the unchanging spatial position of the Number 9.

3. Their number sequences in the Multiplication Series and flow in opposite directions from the Central

Axis, 9.

4. The distance (horizontal and vertical) from the number 9 (and the 9-axis) for two Polar pairs is always the same (refer the Map of Numbers or the Skin of the Rodin Torus. Please refer to the two Nested Vortices shown in the diagram below. Note the spatial location of Polar Number Pairs in relation to the Positive or Negative 9.



A straight line drawn between two Polar Number Pairs always intersects at the Number 9 in the center.

 With the exception of the numbers 3 and 6, the Polar Number Pairs are additionally polarized by belonging to different Family Number Groups (see below).

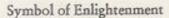
Family Number Group 1	Polar Pair Twin →	Family Number Group 2
1	→	8
4	→	5
7	→	2

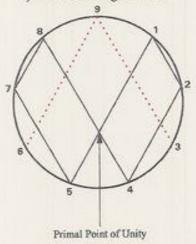
Positive Numbers

Positive Numbers are the emanations form God, which create Negative Draft Counterspace, which draw us back to God in the inbreath-outbreath cycle of the ages.

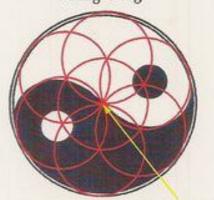
Primal Point of Unity

The Primal Point of Unity is the "cosmic grinder witches cauldron melting pot that creates the exclusive Dandelion Puff Principle: Point Energy Creation Physics..." (Marko Rodin, Aerodynamics). The Primal Point of Unity is located at the center of mass, from an atom to a galaxy. It is the source of the Big Bang (de-compression) and the Big Crunch (compression) of matter in the universe. Within the Primal Point of Unity is the Aeth Coalescence, from which the Aetheron Flux Monopole Emanations emerge. At the Primal Point of Unity is the Toroidal Pinch Centroid Nozzle, a pulsing, surging, "reactionless" drive mechanism, represented by the Arabic alphabet letter Alif (the glottal stop). The Primal Point of Unity signifies the presence of a creative, sustaining force or fulcrum point, which exists at the center of everything.



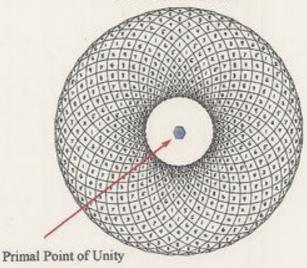


Ying-Yang

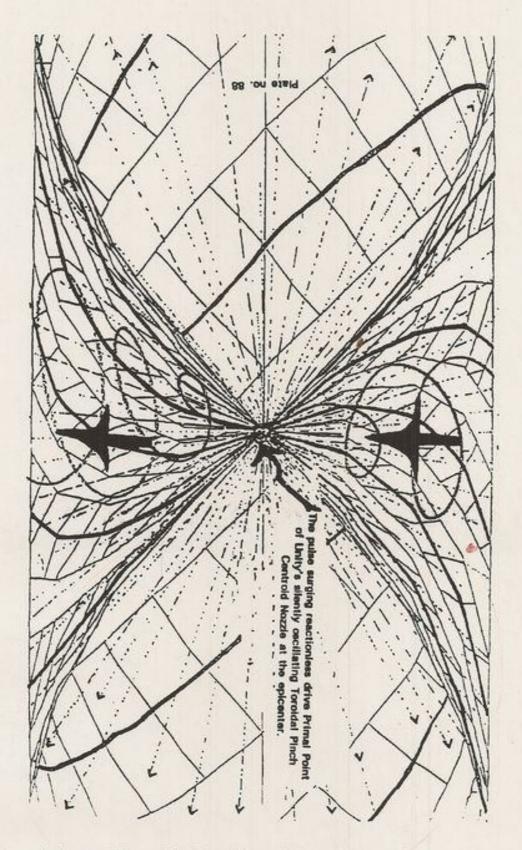


Primal Point of Unity

The Rodin Torus



The Primal Point of Unity is the Fulcrum Point that Balances Duality and is the Portal to Regeneration

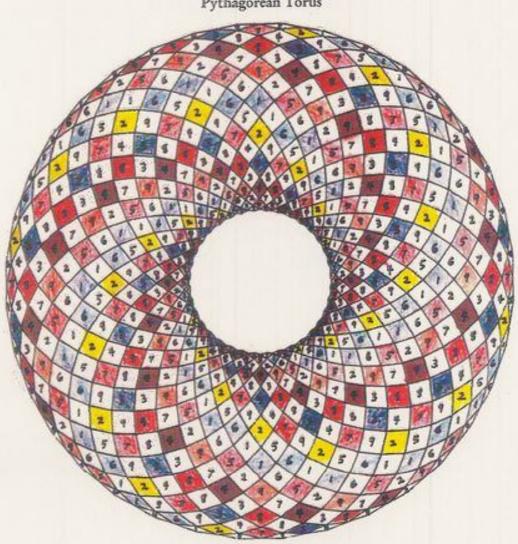


Artist's rendition of the Primal Point of Unity (The Aeth Coalescence) from Marko Rodin, Aerodynamics

(please turn page sideways to view)

Pythagorean Color Harmonics

The Greek philosopher/mathematician Pythagoras is credited with the Lambdoma Matrix, a lattice of harmonic overtones based upon a fundamental tone. Pythagoras also assigned colors to the musical notes, as follows: C=Red; D=Orange; E=Yellow; F=Gren; G=Blue; A=Indigo; B=Purple.



Pythagorean Torus

Rodin Torus with positive numbers colored according to the color scheme of Pythagoras and vibrating at the fundamental tone C = Red. C plus 8 overtones of C comprise the 9-number sequence of the Horizontal Axis (4-8-3-7-2-6-1-5-9), which is repeated 4 times per spire (revolution) of the Horizontal

Tones:

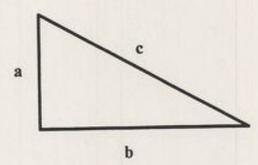
4 = (C, Red, octave 1), (C, red, octave 2), 3 (G, blue, octave 2), 7 (C, Red, octave 3), 2 (E, yellow, octave 3), 6 (G, blue, octave 3), 1 (B-flat minor, octave 3), 5, (C, Red, octave 4) 9 (D, orange, octave 4)

Pythagorean Theorem

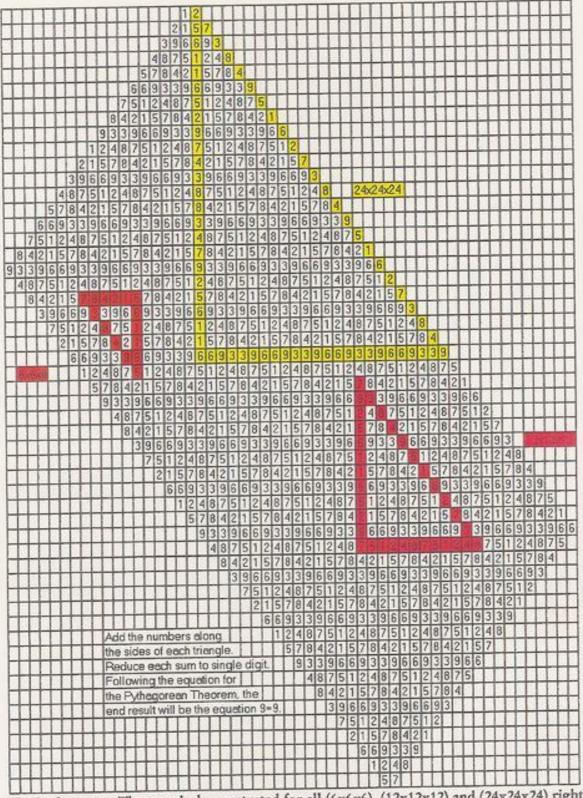
The Pythagorean Theorem states:

For a right triangle with hypotenuse of length c, and sides of length a and length b,

$$a^2 + b^2 = c$$

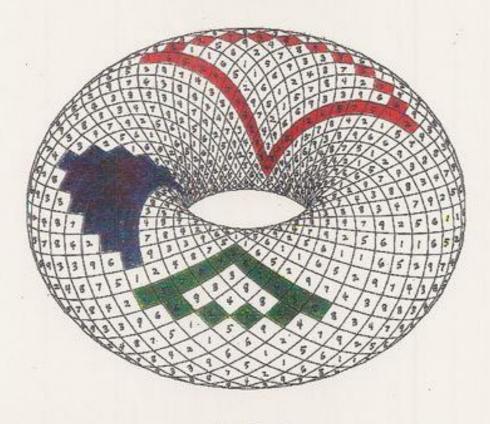


The Pythagorean Theorem is proven for (6x6), (12x12) and (24x24) right triangles on the Number Map of the Rodin Torus (continued on next page).



The Pythagorean Theorem is demonstrated for all (6x6x6), (12x12x12) and (24x24x24) right triangles. Refer to the (6x6x6) triangle above. First, find the horizontal sum for each side of the triangle. Side a = (5+6+1+1+6+5) = 242=6. Side b = (5+1+2+4+8+7) = 27=9. Side c (hypotenuse)(7+3+8+4+9+5)=36=9. Then solve the Pythagorean equation: a² + b² = c². Therefore: (6x6)+(9x9)=(9x9) → (36)+(81)=(81) → (9)+(9)=(9). This equation, 9+9=9, holds true for all of the (6x6x6), (12x12x12) and (24x24x24) right triangles in the Rodin Torus map.

Pythagorean right triangles in the Number Map and on the Skin of the Rodin Torus



$$a^2 + b^2 = c^2$$
$$9 + 9 = 9$$

Reactionless Drive

The Reactionless Drive is the underlying mechanism of the Toroidal Pinch Centroid Nozzle. The Reactionless Drive is a silently oscillating, two-cycle surge pump, in an infinite compression-decompression cycle. This drive links black holes and white holes to a single, circulating system. It causes the Toroidal Pinch Nozzle to silently oscillate between compression and de-compression.

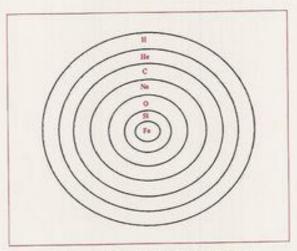
Red Giant Stars and Red Blood Cells

The Rodin Torus is a model of Red Giant Stars and Red Blood Cells.

What do a Red Giant Star, a human red blood cell and the Rodin Torus share in common? They share geometry and a structural matrix of compression and de-compression, leading to precise matter relationships and transformation.

There exists only one universal substance. Matter as we know it is comprised of this substance at different temperature and pressure potentials. Substance undergoes a pressure or combustion transformation to achieve another state. (Walter Russell). This law is portrayed by the Red Giant Star, the geometry of the hemoglobin molecule and the Rodin Torus:

Red Giant. A star that has low surface temperature and a diameter that is large relative to the Sun.



Central Core of A Red Glant Star

Combustion shells in the core of a Red Giant star.

(H) Hydrogen-, (He) Helium, (C) Carbon-, (Ne) Neon-,

(O) Oxygen-, (S) Silicon-, and (Fe) Iron-burning shells of a red giant star.

Relationship to the Rodin Torus. In the Rodin Torus, matter becomes more dense (compresses and becomes hot) as it approaches the central, Aeth Coalescence. Pressure and heat transforms matter from one state to another. There are 8 stages of transformation for some stars. Pressure and heat can transform carbon, for example, from plant life to diamonds. The Rosin Torus models evolution, because the Black Hole is the endpoint of all stellar evolution.

How are Red Giant Stars and the Rodin Torus like A human Red Blood Cell?

Red Blood Cells

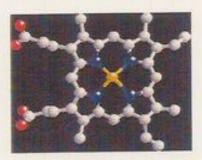
Geometrically, the surface of red blood cells is toroidal. The geometry of a heme group (the key aspect of a hemoglobin molecule), i.e., the geometry of atomic ring formations, is also modeled by the Rodin Torus.



A red blood cell is actually shaped like a torus. (From: Scientific American, October, 1991, p. 49)

Structure of Hemoglobin Molecule. As with the Red Giant Star and the Rodin Torus, the structure of the Heme Group of a Hemoglobin Molecule reflects the principle of increasing density towards the center.

The heme group. Carbon atoms are colored white, oxygen in red, nitrogen in blue and iron is colored golden.

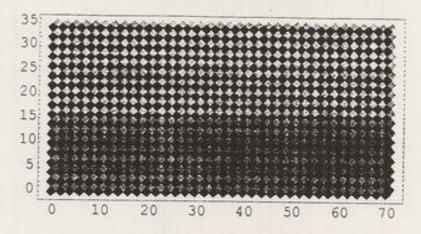


Compare the "atomic shells" of this structure with the combustion shells of a Red Giant Star. Note that Iron (Fe) is at the center of the heme group of the hemoglobin molecule and at the center of a Red Giant Star, and that Carbon, Oxygen and Hydrogen atoms lie at increasing radii from the center.

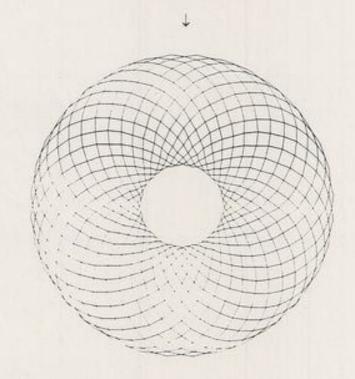
Notes:

- 1. Iron (Fe) imparts tetragonal polarization to the overall structure of the group.
- 2. Four hexagonal carbon rings have a vertex which bonds with the central Iron.
- 3. Four pentagonal rings interface with the four hexagonal carbon rings.
- 4. Therefore, this structure provide geometric harmony among 4-, 5- and 6-aspect polarities.

The Torus is a Plane of Tiles - a 3-dimensional Tesselation



Plane of Square Tiles used to construct the Rodin Torus. Squares are shaded above to indicate opposing polarity. The plane can be rolled into a tube to form a Tube Torus (below) (shading removed)



The Standard Torus

- Geometric definition of a torus. A torus is an orientable, connected surface of genus = 1 (possessing a single "hole") and Euler characteristic = 0.
- Making a torus. A torus can be made from a piece of rectangular plane, in two steps: a) first, a finite
 plane is rolled into a perfect tube; b) the ends of the tube are joined, forming a tube torus. In everyday
 language, the surface of a torus is that of a bagel or doughnut.

Tori and Spheres are classified as Manifolds. A manifold is a mathematical term used to describe Euclidean space in three dimensions. A manifold = the (n-1)-dimensional surface of an nth-dimensional object. A manifold is a surface that locally may appear flat (i.e., Euclidean) while on a larger scale may be bent or twisted into intricate forms. A torus is a "two-dimensional manifold", a surface that can be patched together from pieces of Euclidean space (e.g., a plane formed into a tube which is formed into a tube torus).

 The Standard Torus is paramaterized as a surface of revolution: a circle or planar curve is revolved around an axis. It is known as the tube- or 3-dimensional ring torus. The general equations for this type of torus are

$$f(u, v) = [[a+b \cos(v)) \times \cos(u), (a+b \cos(v)) \times \sin(u), \cos(v)]$$

where a, b and c are parameters defining how the planar curve is revolved around the axis.

• The parametric equations of a torus are [for $u, v \in (0, 2\pi)$]:

$$x = (c + a\cos v)\cos u$$

$$y = (c + a\cos v)\sin u$$

$$z = a\sin v$$

• The equation for the torus in Cartesian Coordinates is presented below. Let the radius from the center of the hole to the center of the torus tube be c, and the radius of the tube be a.

$$(c-\sqrt{(x^2+y^2)})^2+z^2=a^2$$

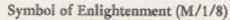
- The three types of Standard Tori possible are:
 - a) Ring Torus
 - b) Horn Torus
 - c) Spindle Torus

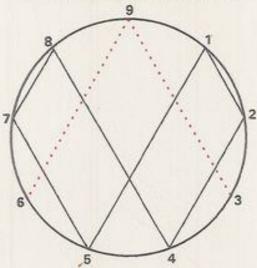
The torus type is dependent upon the relative sizes of a and c.

The Rodin Torus is a Ring Torus.

Symbol of Enlightenment

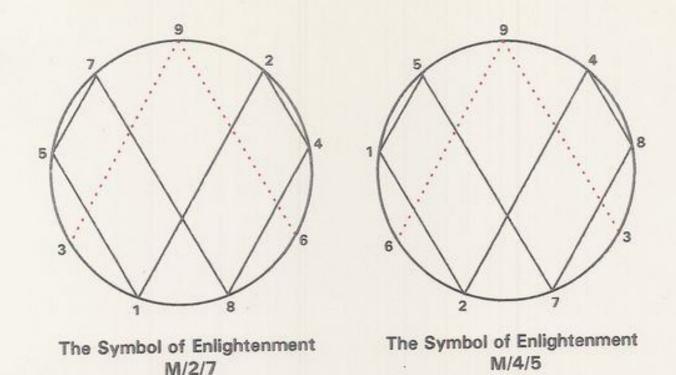
The Symbol of Enlightenment contains all of the information and number relationships pertaining to the Rodin Torus. In fact, the Rodin Torus was developed from an understanding of the Symbol of Enlightenment. The Symbol of Enlightenment was developed by Mr. Marko Rodin, and forms the basis for Polarized Fractal Geometry and for the number sequences and firing patterns on the skin of the Rodin Torus (the Number Map).





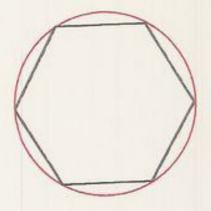
The Symbol of Enlightenment

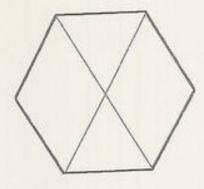
The Doubling Circuit moves from 1-2-4-8-7-5 in an infinite loop, while the 3 and 6 oscillate about the 9-axis, creating a Field.



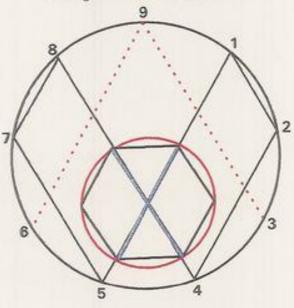
Each of these number arrangements can create an entirely new Number Map. Therefore, they represent two out of the three possible Rodin Tori. The Doubling Circuit 1-2-4-8-7-5 is conserved in sequence and direction for each of the three Rodin Tori.

The Hexagon and the Symbol of Enlightenment





A. Hexagon inscribed within a circle



C. The Doubling Circuit is a Hexagon

Creation of Hexagonal Polarity in the Third Dimension by the Doubling Circuit

Synchronized Electricity

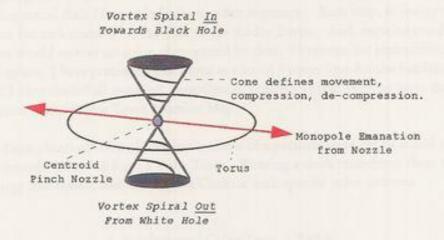
The term, Synchronized Electricity, refers to a two-cycle, Family Number-based activation system of numbers on the Skin of the Rodin Torus. It is pulsed, direct current electricity. The movement of the electromagnetic waves is accelerated while being condensed on its right-handed, logarithmic spiral towards the Aeth Coalescence. The electricity is naturally rectified by the inversion twists of the Rib Conductors (the Doubling Circuits and Equipotential Major Groves).

The order of number activation is in phased-array, and is presented below in relation to the Symbol of Enlightenment. In order of occurrence, the stages are:

(Family Number Group 1-4-7) STAGE ONE: A - C - E (Family Number Group 2-5-8) STAGE TWO: B-D-F D E

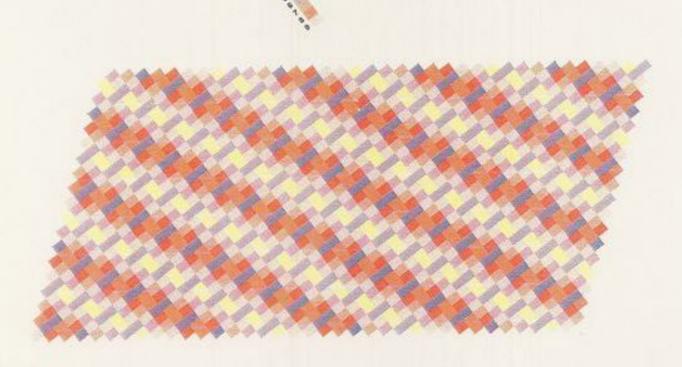
Toroidal Pinch Centroid Nozzle

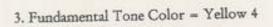
The Toroidal Pinch Centroid Nozzle is the focal center of the Rodin Torus. It is the focal center of all energy fields, matter and astronomical systems. The nozzle is located at the Aeth Coalescence. The Rodin Torus, like a doughnut, has a large central hole. This "hole" is actually formed by the intersection of two, inverted cones:

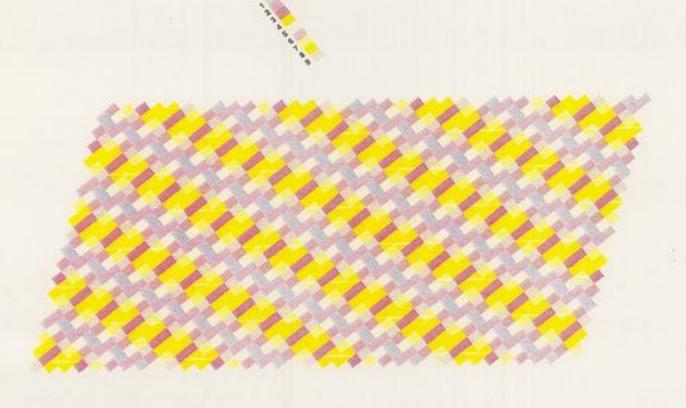


The two cones meet at the nozzle, their apices nearly touching. The process of Toroidal Pinch narrows these conical openings as they compress and de-compress matter and energy. One cone feeds the black hole (compression) and one cone is fed by de-compression (white hole). Matter and energy from outside the nozzle are drawn into the pinched area by means of a Vortex. The path followed my this matter and energy is a logarithmic spiral along the surface of the cones. Speed of motion of matter and energy increase, as does compression, as matter and energy approach the nozzle. After matter and energy enter the Aeth Coalescence at the end of this spiral pathway, the phased-array Monopole Flux Emanations are emitted from the nozzle.

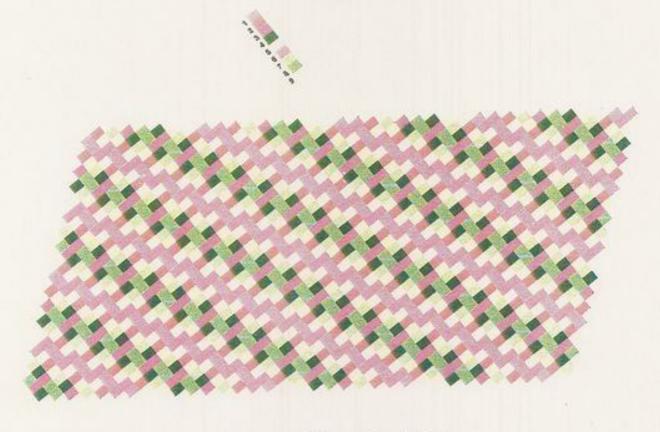
Fundamental Tone Color = Orange 4



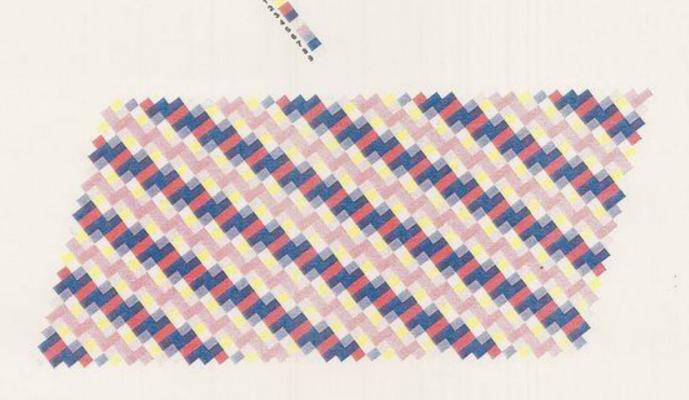




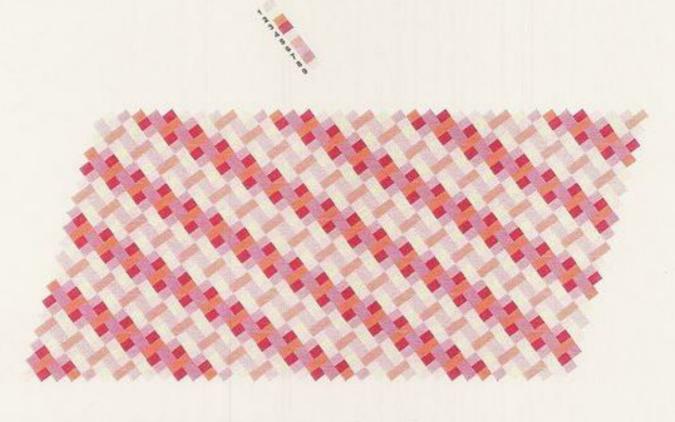
4. Fundamental Tone Color = Green 4

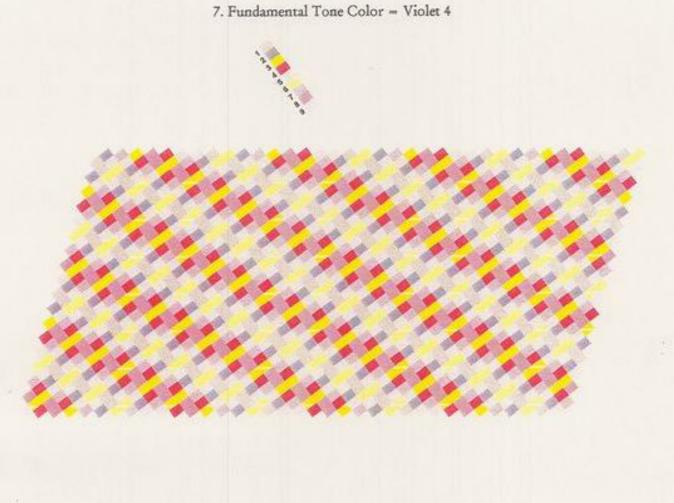


5. Fundamental Tone Color = Blue 4



6. Fundamental Tone Color = Purple 4





Torus Field

The Torus Field is a circulating field of energy. It functions as a matrix which holds matter together. It is actually the field created by a Torus Attractor, attracting order out of chaos. The energy field is comprised of the frequencies and harmonics of love energy plus the other source(s) of energy (e.g., sound, light) drawn into the Center by vortex suction.

Notes:

- . The size of the field depends on the size of the Torus.
- The strength of the field is dependent upon size of the Torus and the spin speed of the Torus Unit
 and the spin speed of the two tetrahedrons of the Cosmic Eggbeater.
- The basic harmonics of the energy in the Torus Field can remain the same, independent of Torus morphology or fundamental tone.
- Only the tones change (fundamental tone and the overtones), their geometric relationships remain the same, no matter what torus is created.
- The Torus Field is a geometric lattice (of energy grid lines or ley lines or area-lines) wrapped around a central core.
- The Field circulates owing to the energy and momentum imparted by the Aetheron Flux Monopole
- · Polarity is woven into the matrix of the Field's grid.
- The ley lines of the Torus grid-field allow matter to seek other matter (of opposing, or complementary polarity) along geometrically defined paths at various compression levels of the torus.
 Chemists call these paths "chemical bonds".
- As the torus undergoes fractal changes, new bonding angles are created, allowing an infinite number of compounds to be formed.
- · At the core of the Field is the Black hole/white hole.
- · The Field has lines of force which circulate in opposing direction (Doubling Circuits).
- . The Field surrounds the central 9-axis of the Torus.

Torus Options (Types of Rodin Tori)

The Rodin Torus is actually a family of an infinite number of torus alternatives. Listed are the Torus Options:

(Note: all Torus Options are a function of changing the number and activation of the Aetheron Monopole Flux Monopole Spires)

1. Number Patterns

Numbers may change their relative position in the Symbol of Enlightenment. The M/1/8 Torus is the model we have been demonstrating in this glossary. There are three possible types of Rodin Torus based upon this option.

2. Type of Tiling Pattern.

Three tiling patterns. The three tiling patterns are triangle, square (and diamond) and bexagon. These are the only possible regular polygons which will tile a plane completely, without leaving any gaps or openings. The triangle is the simplest and smallest shape. It takes two triangle tiles to construct a square or diamond tile. It takes six triangle tiles to construct one hexagon tile. There are three possible types of Rodin Torus based upon this option.

3. Triangle Size

Triangle tiles may be combined to form larger geometric shapes (square, hexagon, larger squares, larger hexagons) until all numbers on the map are used up and the Torus Skin is covered with a single, large tile.

Consequently, triangle <u>size</u> may shift, or ratchet, to smaller and smaller dimensions, *infinitely*, dividing the original number map into more and more numbers. For example, a new, *smaller* hexagon could be placed *inside* one of the original square tilings. Now triangle size is greatly reduced, and six triangles are still needed to make a hexagon. Thus, the surface area (and the number of numbers on the Skin) just increased 6-fold by this infinite mechanism, while the size of the tiles decreased. Thus, based on these options, there are an infinite number of Rodin Tori possible, because size implosion can occur infinitely.

4. Number of numbers in each of the primary number sequences (Vertical Axis, Horizontal Axis, etc.)

One can double, triple, quadruple, etc. the number of numbers in the basic number sequences. This changes the torus shape and size, but all circuits remain the same.

There are also a number of ways one could alter the morphology of the Torus (shape, size, measurements).

The Skin of the Rodin Torus

The Skin of the Rodin Torus refers to the Map of Numbers which is rolled up into a cylinder and formed onto a tube torus. The Skin of the Torus is activated (rarefied) by the Aetheron Flux Monopole Emanations. The Skin contains numbers in relationships defined by Polarized Fractal Geometry. The Skin is only one layer of the Torus, which can be peeled to reveal other layers of numbered Skin. The Skin of the Torus represents the bounded region of the Torus Field, the "bounded infinity" which defines the activity and movement of the Doubling Circuits.

The Transparent Z-Axis

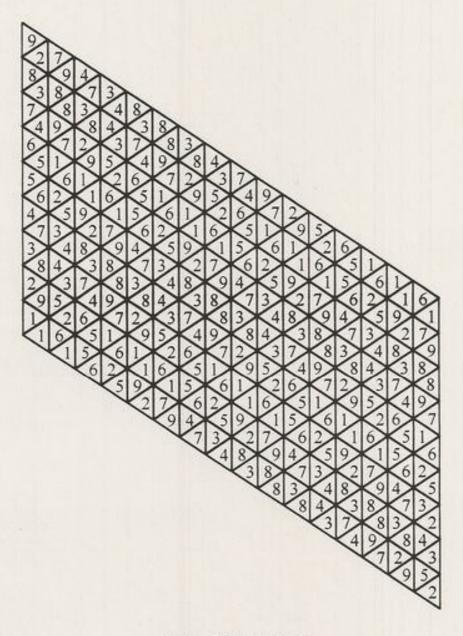
The Transparent Z-Axis of the Rodin Torus refers to the omnidirectional, linear Aetheron Flux Monopole Emanations. The Z-Axis is a linear sequence of positive numbers. The sequence is the same as the Multiplication Series number sequence for 2 and 7:

Notes:

- 1. The Z-axis is transparent because the Emanations cannot be seen or perceived, only their effects can be seen or perceived.
- 2. The Z-axis is the only axis or number sequence which does not bend, is always a straight line.
- 3. The Z-axis does not extend through the Aeth Coalescence. The axis simply consists of linear Emanations which emerge from the Aeth Coalescence, omnidirectionally.
- 4. These Emanations which comprise the Z-axis are responsible of the creation of the Positive Numbers on the Skin of the Rodin Torus as the Emanations pierce the Skin region in phased-array (via the Trinary Dwell Setting).
- The outward movement of these non-decaying axis Emanations creates Negative Draft Counterspace and the numbers of negative polarity on the Skin of the Torus.
- 6. The axis number sequences are fired in phased array, according to the Trinary Dwell Setting of the Family Number Groups on the Skin of the Torus. Therefore, one-third of all positive numbers are activated by the Z-axis at any one time during the Activation Sequence.
- The geometry of the firing angles of the Z-axis Emanations is defined by the Hexagon (Symbol of Enlightenment) and Star of David (star tetrahedron).
- 8. The Z-Axis imparts momentum, direction and spin to matter.
- 9. All matter and energy curve around the Transparent Z-axis.

Triangle Tiling

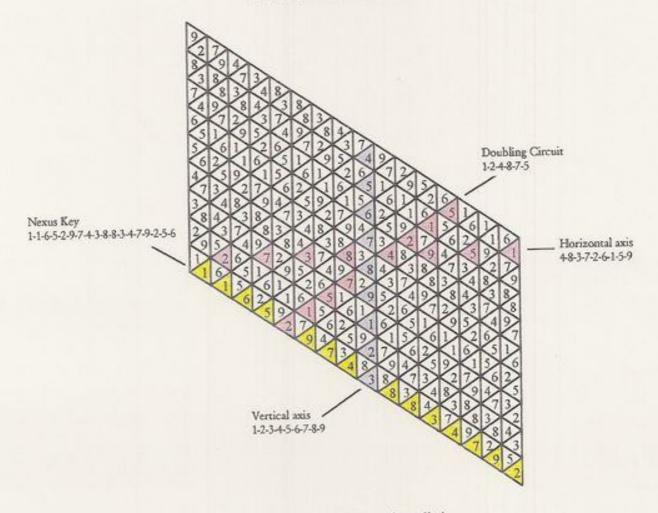
A triangle is one of 3 regular polyhedrons which will tile a plane evenly and completely, without leaving any gaps, holes or imperfections. Below is a depiction of a plane of triangular tiles, Isosceles Triangles. Within each tile is printed one of the discrete numbers (1-9). All number sequences from the Diamond-tiled Rodin Torus are preserved in this map, but the number sequences do not have the same direction of orientation within the number lattice. Such a plane of numbers could be rolled up into a cylinder and formed into a tube torus. This triangular tiling pattern is one of the possible variations of the Rodin Torus.



A Piece of Triangle Carpet

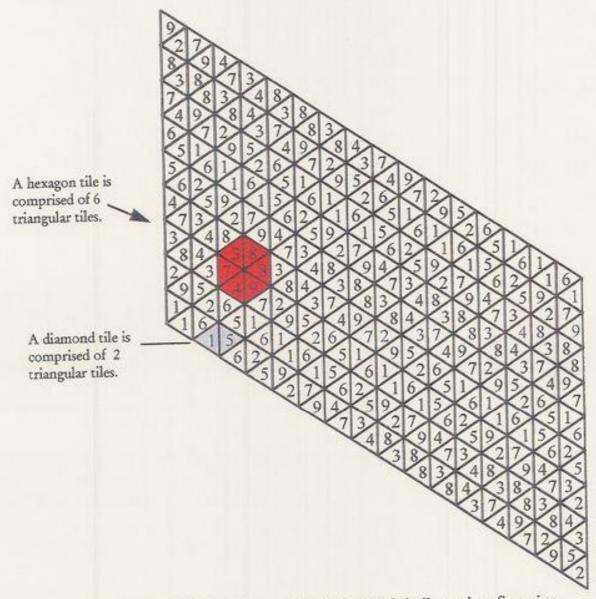
A Piece of Triangle Carpet

Circuits, axes and number sequences shown in triangular tessellation.



A plane of triangular tiles may be rolled up into a cylinder and formed into a tube torus.

In the Fractal Torus, Triangle Tiles combine to form Diamond Tiles and Hexagon Tiles. The Diamonds or Hexagons are of infinite size (infinitely small, finitely large). The number that will appear in the new Diamond Tile or Hexagon Tile is equal to the Horizontal Addition sum of all triangle tiles which comprise it. For example, in the red hexagon below, the number that will be assigned to it is equal to the sum of 8,8,9,4,3,7 which = 39 = 3. A string of Diamond Tile Numbers is shown in blue in their diamond configuration. All number sequences are preserved in all versions of the Torus (the number sequences pertaining to the Horizontal and Vertical Axes, The Doubling Circuits, The Equipotential Major Groove, the Nexus Key).



A string of Diamond Tile Numbers is shown in blue in their diamond configuration

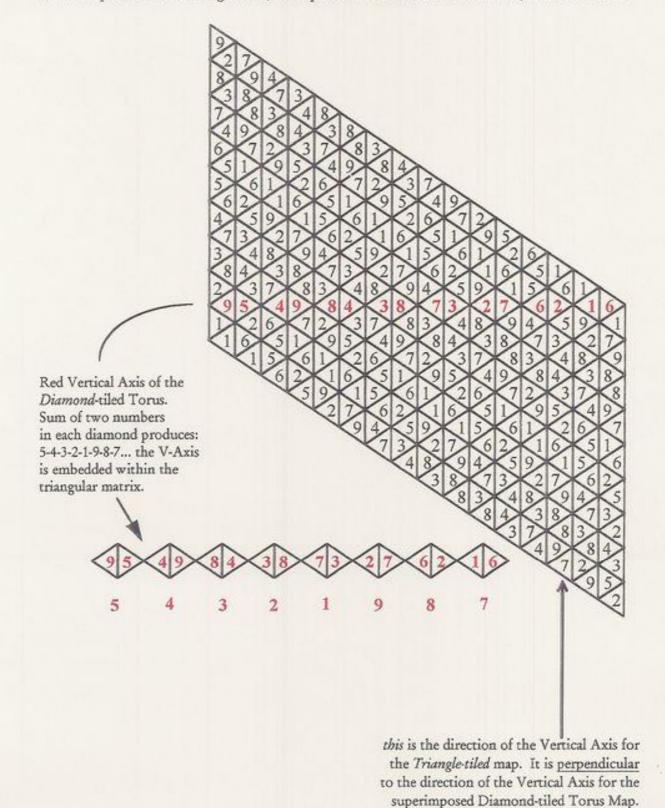
Trinary Dwell Setting

Trinary Dwell Setting refers to the phased-array, sequential activation of positive-polarity members of the Three Family Number Groups by the Aetheron Flux Monopole Emanations. The Family Number Groups activation numbers are:

> Dwell Setting 1: +1, +4, +7 Dwell Setting 2: +3, +6, +9 Dwell Setting 3: +2, +5, +8

Emanation angles are determined by hexagonal geometry.

A carpet of Diamond Tiles (the Rodin Torus) actually overlays the carpet of triangle tiles. A Diamond Tile is comprised of two Triangle Tiles, and equals the sum of their two numbers, as shown below.



Can you find the number sequences for the Doubling Circuits, the Equipotential Major Groove and the Nexus Key in the invisible Diamond Tiled plane of numbered tiles above?

Vertical Axis

The Vertical Axis of Rodin Tours is a number sequence which consists of 18 numbers (produced from the Muliplication Series for the numbers 1 and 8):

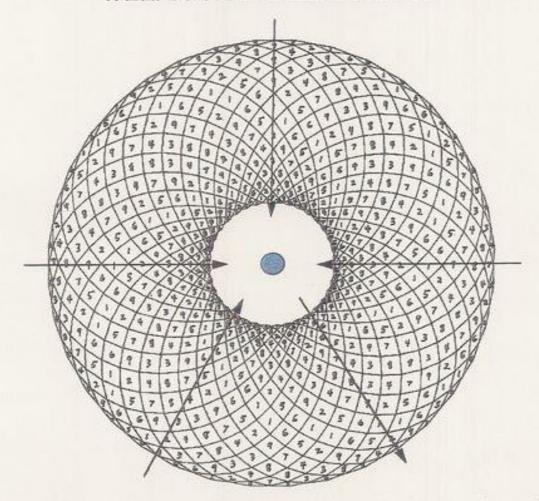
1-2-3-4-5-6-7-8-9-1-2-3-4-5-6-7-8-9 or 9-8-7-6-5-4-3-2-1-9-8-7-6-5-4-3-2-1

The numbers in the string are either all of Positive Polarity, or all of Negative Polarity.

These number strings form 36 circles around the tube of the tube torus structure. 18 of the circles have the number sequence on the left (above) and 18 circles have the number sequence on the right (above), and they are is alternating sequence. The Vertical Axis intersects the Horizontal Axis at right angles.

Five arbitrarily selected Vertical Axis Number Spires (black arrows show direction).

36 circles revolve around the central Aeth Coalescence.



The arrows represent the direction of flow for the 18-number circles of the Vertical Axis, which encircle the tube aspect of the Tube Torus at 90 degree angles in relation to the Horizontal Axis.

Abstract

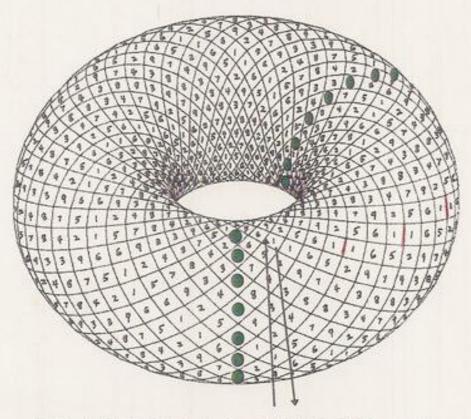
A winding pattern is proposed which creates Synchronized Electricity. Random collisions among electrons, as well as heat, friction and reluctance are minimized by the design. The winding design consists of two circuits which carry energy (electricity) in opposing direction, separated by gap spaces. Thus, the electrons flow in opposite, parallel diagonal directions, with electron-carrying windings separated by space. The current is PDC (Pulsed Direct Current), and it flows along these two conducting circuits. There is an equal-width, major groove gap space between the two conducting circuits. Thus, the coil is really composed of three parts, even though one is left empty. The winding pattern creates an electrical shear effect between adjacent windings, which isolates the Right Doubling Circuit from the Left Doubling circuit. "Essentially I have discovered the bounded infinity pathway electricity flows, beginning where it ends without it having to be coerced" (Marko Rodin, Explore More!, Number 18, 1996).

Sources:

- 1. Aerodynmaics, by Marko Rodin
- Explore Morel, Number 18, 1996. Article by Col. Thomas Bearden, Associate Editor of Alternative Energy Research.

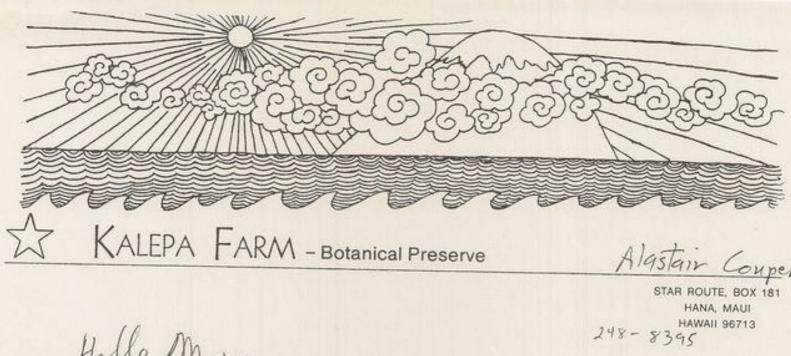
The circular Vertical Axis wraps around the tube.

It is not a continuous axis, but consists of 18 positive and 18 negative, circular spires which revolve around the central Aeth Coalescence.



The Vertical Axis of the Rodin Torus is highlighted with green dots for two Spires of the Vertical Axis, in the side view of the Torus.

The black arrows show that the number sequences of the Vertical Axis are in alternating directions around the circumference of the Torus.



Hello Marco, This has been in the works since our last phone conversation; it took a bit longer than expected. I hope it fills a need to start people thinking in her ways. I certainly learned alot just meditating on these ideas. It is changing to see that truth and beauty can be a beacon in science and life as well.

The pictures of fractals and mandelbrot sets fill

I am sending copies to Bill R. also. Experiments continue. Also, Also, Oceate PDF files without this message by purchasing novaPDF printer (http://www.novapdf.com)

The following is an admittedly rambling tour through some of the ideas which I have been considering which may help show a way through Marco Rodin's ideas in his book Aerodynamics to a link with more established theories and concepts. And hopefully go beyond them. Like most visionaries, Marco's message is hard to understand and set in a very personal language. The life work of the seer is to make the transition accessible to others, lest what was valid in the original perception is lost to humanity. So I hereby offer my small effort towards the process of distillation of the essence which could lead to an experimental test of these ideas. Lest one be dubious of such "channeled" material that does not contain an established flow of logical continuity with previous theories, let it be pointed out that in the new energy paradigms even so called ponderable matter itself is seen as a vessel or channel through which the ubiquitous energy of existence flows. In the same way the mind can shape the same life force and perceive directly new concepts; this is old hat for many of the most creative in all walks of life. At the same time distortion is inevitable, and the process of creation then involves discernment of the essence, a process which has been called "I percent inspiration, 99 percent perspiration".

Marco conceives of a toroidal form upon which a coil of very specific geometry is wound. This coil may or may not be a conventional copper conductor, there is no clear indication of how the winding is to be energized. The details of the flow of energy are to be obtained from his Sunflower Map, which is an elaborate numerological scheme rendered on the surface of the toroidal form. He expects strong gravitational effects from a properly executed and powered winding. Throughout his book he uses conventional ideas in unusual ways: fractal, hologram, monopole, phased array, synchronized electricity all appear, the effect being more like poetry than anything else. It is these concepts which bare further scrutiny.

The foundation for the whole book lies in the numerological tradition, which is ancient, probably something handed down from the Sumerians along with their astrology and geometry. As a modern, the whole of numerology seems trivial at most, and with various cultural overlays, downright superstitious. The key numerological operation is cross addition, wherein a given number's digits are added to each other horizontally and reduced to a single digit 1 - 9. thus, 5682 becomes 21 becomes 3. Marco begins with the sequence of powers of two: 1, 2, 4, 8, 16, 32, 64.... and turns this into a repeating pattern: 1, 2, 4, 8, 7, 5, 1, 2, 4, 8, 7, 5. The claim is that this doubling sequence is seen in all life processes and throughout nature. Refer to figure 1. It is this sequence, joined by its reverse, which form the bifilar doubling circuits layered around the torus. The quandary is, what energy conditions do these numbers refer to? The remaining numbers form a gap space pattern: 3, 9, 6, 6, 9, 3, 3, 9, 6, 6, 9, 3... which separates the previous circuits. It is to be presumed that this sequence is associated with a vorticity of the vacuum or electromagnetic field between the conductors. It is shown that when these sequences are laid out in a grid, and various grouping are made using the horizontal addition, a fractal effect occurs where the same sequence of numbers appears at higher and higher levels of groupings. One is immediately reminded of the various examples of period doubling leading to chaos that are seen in all sciences these days. These bifurcation maps, such as that produced by the much studied logistics equation, all show a repeating pattern at all levels of magnification, much as does the Sunflower map.

It is not known to what level these bifurcations of a physical system extend to. Some would say they extend all the way to the quantum level, and that fractals provide a means for the ever troublesome "collapse" of the wavefunction. All that is required to generate fractal behavior is two things: nonlinearity and iteration; which is to say take a nonlinear process and feed back some form of its output to its input. The numerological binary doubling sequence as used by Marco is indeed nonlinear and iterative, so it should be no surprise when he shows us the repeating fractal patterns of the Sunflower Map. And yet it is compelling at the same time. The question I ask at this point is: What can the study of fractals say about the possible extension of our theories of electromagnetism and gravity?

Conventional engineering uses Maxwell's equations as its guide to field effects. These equations were developed through the use of experiments measuring the physical forces exerted by extended bodies, in the effect glossing over the fine details which may be present in the fields. The flavor of this blurring occurs in the following infinite series expansion 1/x-1:

$$\frac{1}{x-1} = \frac{1}{x} + \frac{1}{x^2} + \frac{1}{x^3} + \dots + \frac{1}{x^n} + \dots$$

For any finite number of elements on the right hand side, the series is undefined at x=0. But if the series is allowed to go to infinity, then the left hand side results, which is undefined at x=+1. This problem with infinities pops up like mushrooms in the lawn order of physics. Can linear math be trusted? Another case in point is shown in figure 2. Everyone has seen what happens when iron filings are used to show the shape of the field around a magnet. This is misleading in that each iron filing becomes a magnet itself, and what is shown is actually the interaction between the two magnets. When the field is scanned by electrons, the picture is radically altered and a complicated, apparently fractal pattern emerges.. My guess is that with suitable technique a similar, dynamic result could be obtained for the static electric case as well. I feel that the "internal structure" which Bearden uses in his writings to describe the vacuum state is not random in any sense, but perfectly chaotic or infinitely structured. Marco has said "there is no chaos", which I take to be in the sense of no disorder. (The Koran states; Not an atom moves, which He doesn't know.) So white noise is the signature of infinite information. And the fractal road of bifurcations is a (perhaps one of many) map of the territory. It is the virtue of the fractal approach to ungainly systems that high orders of complexity can often be collapsed to a very simple model which mimics the overall characteristics, not in the sense of a linearized approximation, but in the manner in which noise and mathematics purports to be a sort of Rosetta stone for modeling the ultimate order on the level of the quantum.

Dan Winter's writings have many points of contact here, particularly in the use of fractals, of toroids of specific geometry, and the notion that form and ratio are primary. In Alphabet of the Heart, he shows how spin and shape of the Unified Field conspire to effect the cascade of wavelengths from long into short, and vice versa, by sacred stone architecture and biological systems; and thereby allowing the translation of energy from different frequencies. Note what a slippery concept "energy" is. We all seem to want it, and yet we don't really know what it is. In the old days, energy was always tied to matter, as was electrical charge. But if we conceive of mass or charges as forms of energy, then all our definitions become circular. So that question of what it is that waves is an old one, and one that won't be answered by our subject-verb-object linguistic tight shoe. Here is Dan's version of the story of the One substance:

"When you have only one kind of flowing material to work with, it is like the universe is one giant flowing ocean. Then the only shape you can make is the vortex...which makes donuts. Hydrogen as the basic building block of all the atoms, is really a wave shaped into a donut or torus."

'The fractal nature of the waveform creates gravity. The relationship of the electron shell to the nucleus is fractal, as both have Platonic symmetry, and this permits the cascade for the wave to fall into shorter and shorter wavelengths. We call that one way wind gravity. Hydrodynamically it is a flow between frequencies, lower to higher, into a center, induced because the symmetry is fractal. It is the nature of recursion itself that creates gravity. It is that recursion or self-imbeddedness that creates the attractiveness in waveforms that draws them

back to center, recursively making them nest in more and more self-imbedded patterns."

It is this vortex mechanics which Marco is endeavoring to construct as the center 'nozzle' of his torus form, or the 'primal Point of Unity'. The swirling and spiraling of the Sunflower map as it topologically distorts in the center gives the impression, artistically anyway, of the cascade between frequencies. It is as if Marco is attempting to construct a macroscopic electron. Is it possible that the flow of electrons in wire could be used to orchestrate this vortex flow of energy? We need to conceive of the energy as distinct from the moving electrons, as Bearden points out. After all, the drift of electrons in a conventional wire is only millimeters per second whereas the energy involved in that flow, or ON that flow, travels at close to the speed of light. The work of David Bohm provides an additional insight here.

Bohm has developed an alternative form of quantum theory which provides for a very different interpretation of what happens at the subatomic level, although it gives the same numeric results as the standard theory. This is proper, as quantum physics to its credit can boast very precise levels of agreement between theory and experiment, although that is possibly a case of finding what is looked for. I will quote here from the book Turbulent Mirror, by Briggs and Peat.

"Bohm's 'causal interpretation' is a proposal that introduces nonlinearity into the quantum theory. He realized that it's possible to write down Schrodinger's equation in a new way, essentially by splitting it into two parts. The first part describes a sort of 'classical electron'. The second equation describes a bizarre 'potential' in which the electron moves, a kind of infinite sensitivity possessed by the electron (or other particle) to its surroundings. Bohm calls this sensitivity the 'quantum potential'

The quantum potential that dictates the way an electron moves is nonlinear and is determined, in an unimaginable way, by all the . . . particles that surround the electron in question. The quantum potential controls the movement of an electron inside of an atom, or as it travels inside a piece of experimental apparatus.

Because of the extreme sensitivity of the quantum potential, an electron is constantly pushed in to bifurcation points along its path, regions where it may be flung in one direction or the other. So complex is this nesting of bifurcations and wildly fluctuating regions that the result is the indeterminism, and unpredictability that characterize the movement of an individual quantum such as an electron, 'quantum chaos' as it's sometimes called. But as far as Bohm is concerned, the quantum electron's movement is not one of chance and uncertainty; rather, it is totally determined - but by a potential of such endless complexity and subtlety that any attempt at prediction is out of the question.

For Bohm the quantum potential - which every particle possesses - is an infinitely sensitive feedback with the whole. Picture the electron as an airplane controlled by an automatic pilot. The quantum potential associated with the particle is analogous to a radar signal informing the automatic pilot about everything in the plane's environment. The signal doesn't actually power the plane but can influence its course profoundly "

This idea of an information signal telling a particle where to go is also found in Bearden's writings, where he describes a scalar electric potential as being like a patterning of the chaotic vacuum, and that a spinning particle (spinning IS charge) "hooks" into the potential, somewhat like

gears meshing. The particle is not pushed by the ESP, but moves from its own energy source. The ESP only provides the pattern or information of where to move. I begin to get the image of the electric field as having a quality of complexity and baroque curliness as does the Mandelbrot set. Our notions of requiring work to move charge in a wire comes form the fact that our circuits (circular charge flow is just that case for which Maxwell's equations work) discharge the electron potential in random collisions, delivering the depotentized electron back to the source where it must be pumped back up. Thus the original source potential is discharged.

Moray King has made a similar point in noting that electrons are not useful for polarizing the vacuum, due to the ease with which they are buffeted about by the quantum chaos. This is part of why electrons are conceived of as a 'smear'. He states that one must coherently move masses of nuclei to achieve a stable vacuum polarization, and the heavier the nuclei, the better. He further states that energy effects are also reported from the use of coils which cancel their magnetic fields, such as caduceus or bifilar wound coils. All the instances cited require a sudden, abrupt change of current, such as occurred in Tesla's apparatus when ball lightning was produced. Dr. Hooper produced research which linked the effects of flux canceling coils with gravitation, which were quite weak in his experiments. He has stated that the increase of the speed of the charge flow would vastly increase the effects he measured. Now increasing the speed of conduction sounds like superconductivity, and requires the orchestrated movement of all the charge carriers in synchronism. This story is seen in Marco's writings as well, where he says that his geometry ensures the longest possible collision free path, allowing the flow of synchronized electricity, which he also refers to as accelerated electricity. (Could cooperating electrons be referred to as a smear campaign?) He claims that superconduction is a result of form and proportion, and not of material content. Bill Ramsay has measured the flux characteristics of an initial prototype of Marco's coil, finding that it lies in between the open radiation of a solenoid and the enclosed flux of a usual toroid, with partial flux cancellation due to the bifilar configuration. Perhaps his toroid geometry creates a synergy of the separate quantum potentials, each telling all to move in such a way as to eliminate resistance. The use of 'gear teeth, mesh, number crunching, entrainment and transmission' throughout Marco's glossary seems to me to point to this idea. A very strong intuition that I have at this point is that if indeed this synergistic flow of energy is to be orchestrated in a wire coil, the driving or inducing signal will not be a simple sine wave or square wave, but must itself partake of the fractal and vortexian natures. It will have to reference in some way a transcendental condition, as does the transcendental number PHI which can not be contained in a number system, but can be invoked by simple geometry. The recent experiments by Dr. Faile as reported by New Energy News have a similar theme to the foregoing. He has found that it is possible to produce significant power from a coil of braided shielded cable of specific form. In his evolution of this braided form he seems to be closing on some primary geometrical archetype. The signal he is rectifying appears to be the same as that which produces the 1/F noise in Hodowanec style gravity wave detectors, and so is very clearly fractal in nature.

Only a small 'leg up' on the natural quantum chaos would be required for large results to be obtained. At present, chaos theory and Fibonacci sequences are making a big stir in investment methods on the stock exchange. There is presently an artificial intelligence program using these concepts to learn and adapt to the fluctuations of the stock market index, and to then make predictions. The program shows results which consistently give an advantage of a fraction of a percent over the usual odds. This is not impressive at first sight, but when one moves around large sums daily with an assured gain, the advantage quickly accumulates. This is similar to the presumed immensity of the background 'jitterbug' energy. A special geometry would give a return based on how well it accorded with a preferred path of least resistance.

Further impetus in this direction comes from the work of Terence McKenna and his Time Wave theory. While this theory is as intuitive and elaborate as Marco's it is also implemented in

software which allows for some sort of testing. The theory states that the nature of time is not one of simple linear flow, but has a fractal quality with the usual attribute of repetition of self similar pattern at various levels of duration. The quality which is charted by his software is referred to as 'novelty', and which he interprets in the historical perspective as the flow of new ideas and epoch making events into the life of earth. While it is arguable as to what Terence has actually accomplished, the process he used is potentially relevant to energy research.

He began with the King Wen sequence of the 64 I Ching hexagrams, which he calls a "profoundly artificial arrangement", as a model for the way in which time's changes could be mapped. He then took the first order difference between each hexagram, a sort of first derivative of the changing number of lines in the sequence. This generated a random appearing series of values, using 1, 2, 3, 4, and 6 (no changes of 5). It was then noticed that if this "waveform" were turned around in time and inverted, it would overlay the original at each end. This impressed Terence at the time as there were several interesting numerical relations that came out of this. What I thought of when reading this for the first time was that he was constructing something like a forward moving particle/ backward moving anti-particle pair. (Note the similarity to Marco's use of the forward and reverse binary doubling sequence.) He took this pair of waveforms through a series of mappings, all intuitively guided, to finally produce a sequence of 384 numbers which are the "seed" of his time wave.

This seed is then used as the basis in what is called a fractal transformation. If the 384 numbers are considered as elements of a discreet function v(n), then the function f(n) is the fractal transform given by:

$$f(n) = \sum_{i = -\infty}^{\infty} \underline{v(n \cdot a^{i})}$$

This function is constructed of an infinite number of versions of the original function which are stretched or compressed, and added together. In practice the number of additions need only go as far as required for numeric accuracy. The Time Wave Zero program uses this function as a way to calculate backwards in time from a given date. When Terence chose Dec. 21, 2012 as the end date, he found that there was a very compelling coincidence between the sudden changes in the time wave and historically significant events on earth, be it the appearance of mammals eons ago, or the sudden change of consciousness in the mid 60's. The function can be interpolated to any length of time, but there is no real interpretation as to what is being presented at the micro second level. What is of interest to me in this is some notion as to how one could proceed in creating other nonperiodic waveforms of a fractal nature. (See Figure 3)

A complementary analysis of relevance is given by Lama Govinda in his book The Inner Structure of the I Ching, shown in figure 4, Here we see the result of taking the King Wen sequence, a temporal arrangement, through various transformations to give an abstract arrangement which is able to be shown most succinctly by this geometric mandala. While I do not want to push any analogies too hard, what the time wave and this form represent to me is a particle and wave duality; one an unfolding in time, the other a sort of Platonic solid existing in some timeless dimension. Or perhaps a flowing liquid solution and a crystallized solid. (As Whitehead says, the sole appeal is to intuition.) This seems to define the essence of sacred geometry, which is to construct a shape or form, be it toroid or pyramid or whatever, that is the crystallization of a temporal wave form. The toroid which Marco and others favor is clearly a primary form. What can be said about the doubling sequence?

As pointed out by Lawlor in Sacred Geometry, the division of the primordial unity into two is symbolized by the square, and the diagonal. It is the essence of cellular growth and expansion.

Doubling is a motion which makes no reference to anything but itself, and when out of control it causes cancer or explosion. So doubling requires a form, at least conceptually, in order to be useful. Marco maintains that the doubling sequence is fundamental to all energy processes. On the other hand the Golden Mean spiral would appear to denote a rather different process as mentioned earlier. However, Marco shows that there is a relation in his math between these two energy archetypes which appears in figure 5. This is a numerological transform which does not have any parallels in conventional math that I am aware of. But is does seem to me to be significant.

The mood of numerology is to view numbers as beings or process rather than quantity, so it is very difficult to see how these ideas could link with our normal scientific notions. These notions, after all, are a cultural framework and subject to change without prior notice. Marco contends that the digits 1 - 9 represent an essential perfect system. In the Kabbalah, it is said that the Hebrews thought in terms of twelve, even though they counted in the decimal system. The Chinese thought in powers of two, especially 8 and 64. In figure 6, we see these systems combined in a mandala of Tibetan origin. (The magic square at the center is one which is also used by John Searl in his design process.) The transcendental numbers like PHI and root two do not have a simple numeric representation; they seem to point to another dimension then Earth bound integers. But again there is a mysterious connection between these various numbers that caught my attention.

I became intrigued with the idea of attempting to create a waveform which would invoke in some way the golden mean spiral vortex. Moray King has suggested using a "chirp" or logarithmic swept sine wave as an excitation for energy devices, in order to stimulate the cascade of energy between frequencies. But is there a way which would partake of the fractal nature in a direct way? I began by examining the elements of the Fibonacci sequence, which gives an arbitrarily close approximation to PHI by taking the ratio of adjacent values. If one takes the horizontal sum of each value of the series, the result will be as shown in figure 7. It is seen that, regardless of the numbers used to start, the sequence of numbers will always have a period of 24, with a significant symmetry between the first 12 entries and the second. There is also symmetry in the first order difference. My immediate question was, "Why 24, or twice 12?" We have 12 months, 12 inches, 24 hours, etc. Curiouser and curiouser. In figure 8 I show further the symmetries which come from this sequence of numbers. In fact, one can start with any two ascending numbers, and following this Fibonacci process, end up with a very similar pattern. There are only four different patterns which are formed using this process, and these groupings are shown in figure 9. Are these images indicative of a real Universality?

I can't say any further at this stage. The experiments which I am planning will make use of the Fibonacci fractal as a seed for a pseudo-random signal generator, calculated by computer and output through a D/A convertor. This assumes that these sequences relate to amplitudes of voltage levels. Marco feels that microwave or optical frequencies are more appropriate, so what low frequency experiments would show is unclear. Perhaps FFT analysis of input versus would show the creation of new frequencies by an otherwise linear system. But this is only a guess as to the question raised at the beginning. I do note that in the Montauk experiments, Al Bielek tells of the use of an IBM 360 computer to do the calculations required to generate the necessary drive signals. What was being calculated there? How does numerology relate to energy states in electrical circuits? I must leave these idle speculations for now, and do something towards the next step. I hope that, if nothing else I have stimulated thought and perhaps expanded a few minds.

Further Reading:

AERODYNAMICS, by Marco Rodin, avail. from P.O. Box 950, Waimanalo, HI 96795 (808) 944-3396

ALPHABET OF THE HEART, by Dan Winters

EXCALIBUR BRIEFING, By T.E. Bearden, avail. from Intl. Tesla Society

TOWARDS A NEW ELECTROMAGNETECS, by T.E. Bearden

WHOLENESS AND THE IMPLICATE ORDER, by David Bohm, 1983, Ark.

TURBULENT MIRROR, By Briggs and Peat, 1989, Harper and Row

THE INVISIBLE LANDSCAPE, by Terrence McKenna, Harper Collins

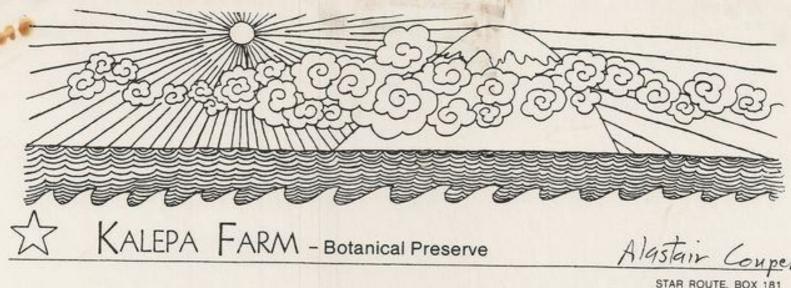
THE INNER STRUCTURE OF THE I CHING, by Lama Anagarika Govinda, 1981, Wheelright Press

SACRED GEOMETRY, by Richard Lawlor, 1982, Thames and Hudson.

New Energy News, October 1995, article by S. Faile

New Energy News, December 1995, article by Bill Ramsay

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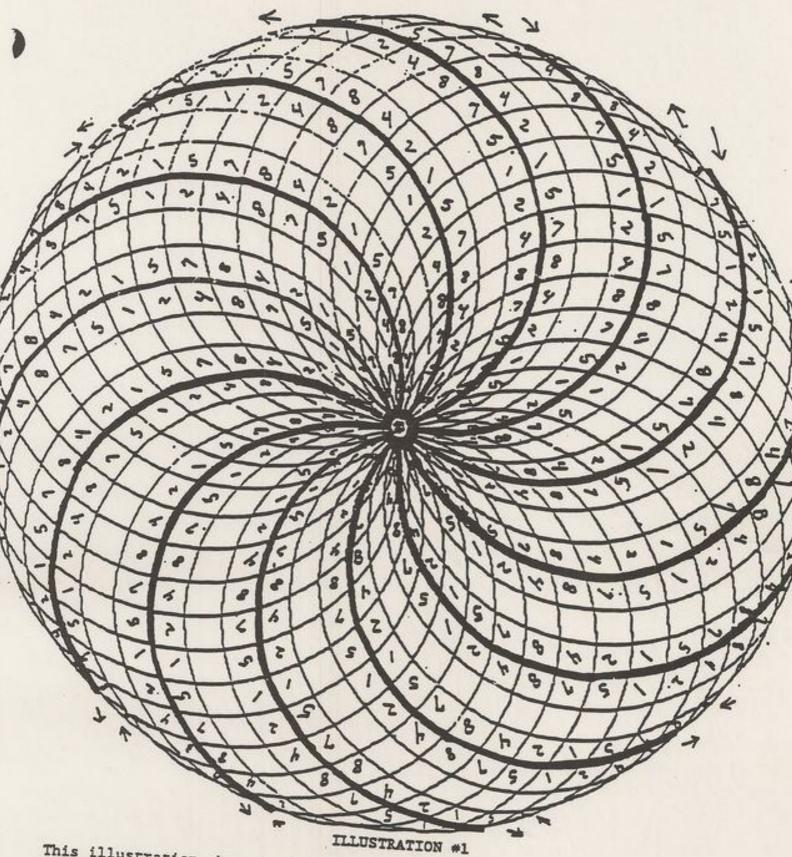
Hello Marco, This has been in the works since our last phone conversation; it took a bit longer than expected. I hope it fills a need to start people thinking in her ways. I certainly learned alot just meditating on these ideas. It is changing to see that truth and beauty can be a beacon in science and life as well.

The pictures of fractals and mandelbrot sets fill me with awe.

I am sending copies to Bill R. also. Experiments continue... Alsha, Alatair

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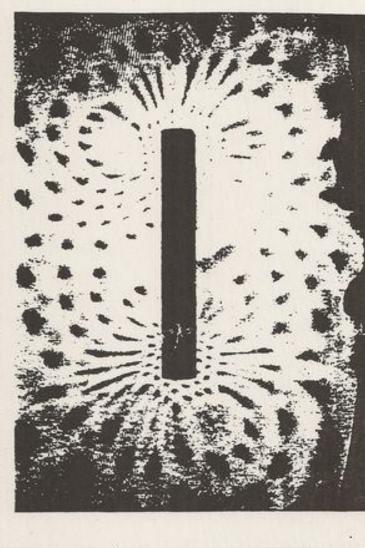
Figure 1, from Aerodynamics, M. Rod



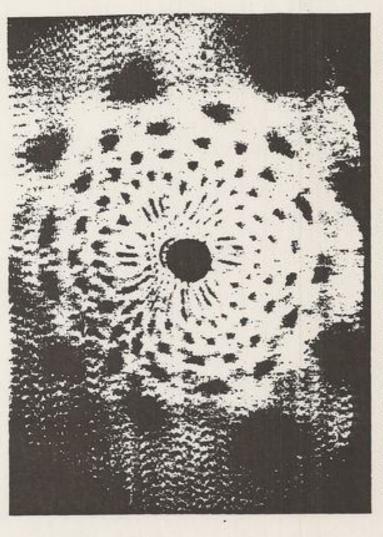
This illustration charts the two equal and opposite doubling circuits of Polarized Fractal Geometry. The number pattern for the pairs of doubling circuits is 1-2-4-8-7-5. The numbers are printed here inside each diamond speed segment in the doubling circuit. Notice how the same number pattern the other doubling circuit. Notice how the same number pattern of the toroid. Shown here is the doubling circuits form spirals on the surface spaces" between each pair of doubling circuits are spiralling sets of diamond spaces" between each pair of doubling circuits are spiralling sets of diamond shapes without numbers (refer also to illustration #2). Both the doubling circuits and the gap spaces are integral to the interval ships of all

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Magnet 3/4" dia: x 6" long taped to face of a color TV tr-be approximately 1200 Gauss.





quite different around the north magnetic pole from that around the south tions in the magnetic field are not symmetric about the two poles; i.e., the patt face of a color television tube, one can see that the hyperfield orthogonal cir-

center of intense emission. pole. Radiating conically out longitudinally is a toroidal null zone, at an an hexagonal solid. Thus there is an intense hexagonal orthorotation about the rounding a concentric ring neutral zone, which in turn surrounds a hexa from the north end, and at a distance from the magnet, the pattern shown ligher cone is an emission cone where photons are being generated. Thus v ight figure of the slide emerges. The pattern is a ring of light or light bubbles righer angle, another concentric cone is radiated out in the same direction he longitudinal axis projected away from the north pole into space. At an Around the north pole, the hyperfield circulation is emitted in the form

orthorolation. slight nonlinearity of the spatial medium in which the photons are emergi his exact pattern is seen, allowing for the dynamism of the phenomena at If frame three of the Vestigia mystery light photos is examined meticul

a distance. So the pattern of photon emission that is seen from this end is supply wider. The densely emitting core area now has a relatively circular cross sect outer emission ring is so thin that it has effectively disappeared: it is radia ight angles to the magnetic longitudinal axle. The middle null area is also On the other hand, looking at the left hand figure on the slide, we see th

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While this closure might logically be expected anywhere in the sequence, it in fact occurs at the conventional beginning and end of the sequence. While an arrangement with closure might have placed any two hexagrams opposite each other, what we in fact find is that the hexagrams opposite each other are such that the numbers of their positions in the King Wen Sequence when summed is always equal to sixty-four.

Over 27,000 hexagram sequences were randomly generated by computer (all sequences having the property possessed by the King Wen sequence that every second hexagram is either the inverse or the complement of its predecessor). Of these 27,000 plus sequences only four were found to have the three properties of a 3/1 ratio of even to odd transitions, no transitions of value five and the type of closure described above. Such sequences were found to be very rare, occurring in a ratio of 1 in 6750.

For these reasons I was led to view the King Wen Sequence as a profoundly artificial arrangement of the sixty-four hexagrams. Look carefully at Figure 15. Review in your mind the steps from the King Wen sequence that led to it. Notice that it is complete set of the sixty-four possible hexagrams, running both sequentially forward and backward. Since it is composed of sixty-four hexagrams of six lines each it is composed of 6 x 64 or 384 lines or yao. One might make an analogy and say that Figure 15 is to the King Wen sequence as a cube is to a square. Figure 15 is composed of the same elements as the King Wen Sequence but it has more dimensions.

It is my assumption that the oracle building pre-Han Chinese viewed the forward-and backward-running double sequence of Figure 15 as a single yao or line and that it is therefore open to the same treatment as lines are subject to in the I Ching, namely multiplication by six and sixty-four.

Figure 15

Figure 4, from the Ihner Stutture

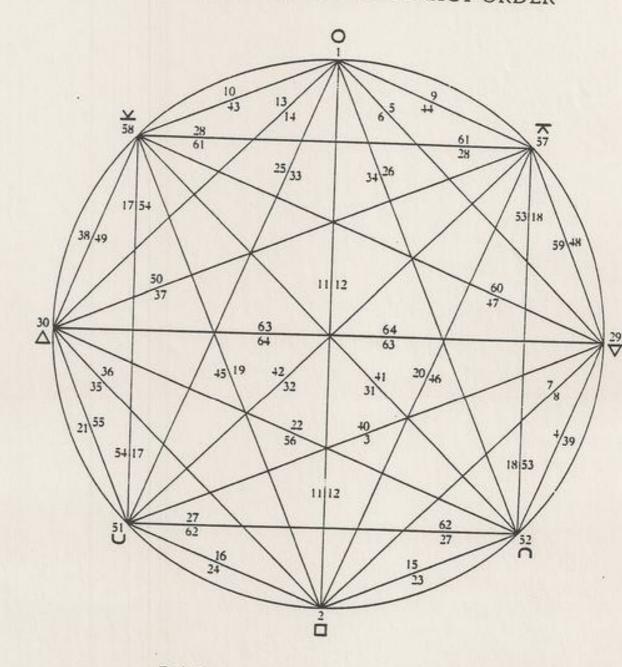
XVII SUMMARY OF HEXAGRAM ARRANGEMENTS

The Ihner Stutture

Ching, Lama

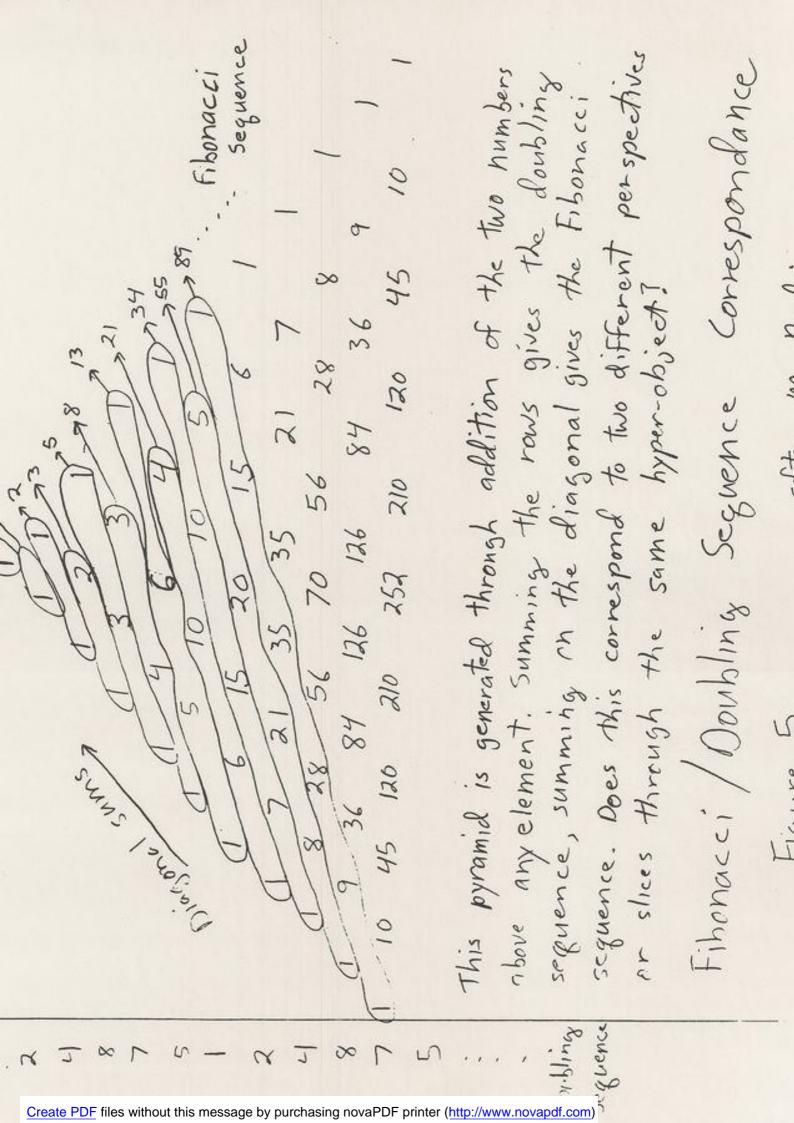
C.

PROJECTION OF ALL HEXAGRAMS ON ONE CIRCLE ACCORDING TO THE ABSTRACT ORDER



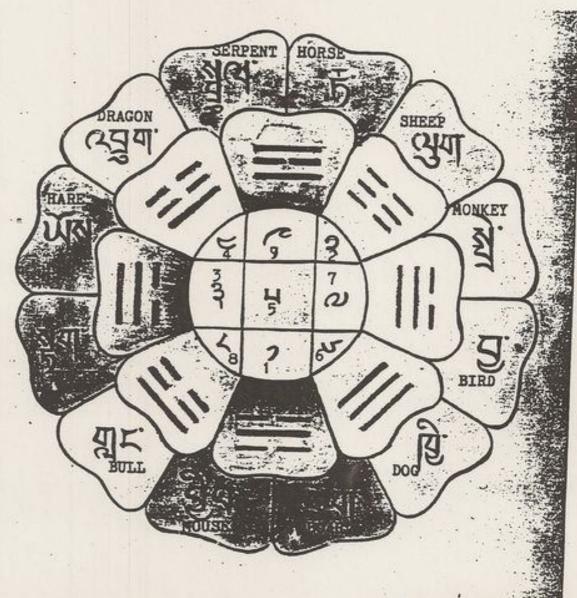
Each line represents two movements. For instance: 31/41 = DUI-GEN and GEN-DUI, or 63/64 = KAN-LI and LI-KAN.

The numbers outside the circle represent the reduplication of the same hexagram, such as LI-LI, KAN-KAN (30 & 29), etc.; in other words an intensification or inner movement that cannot be shown graphically.



ibid: L. Govirida

VIII - SYMBOLIC ELEMENTS AND CHINESE ZODIAC



Based on a Tibetan colour-print

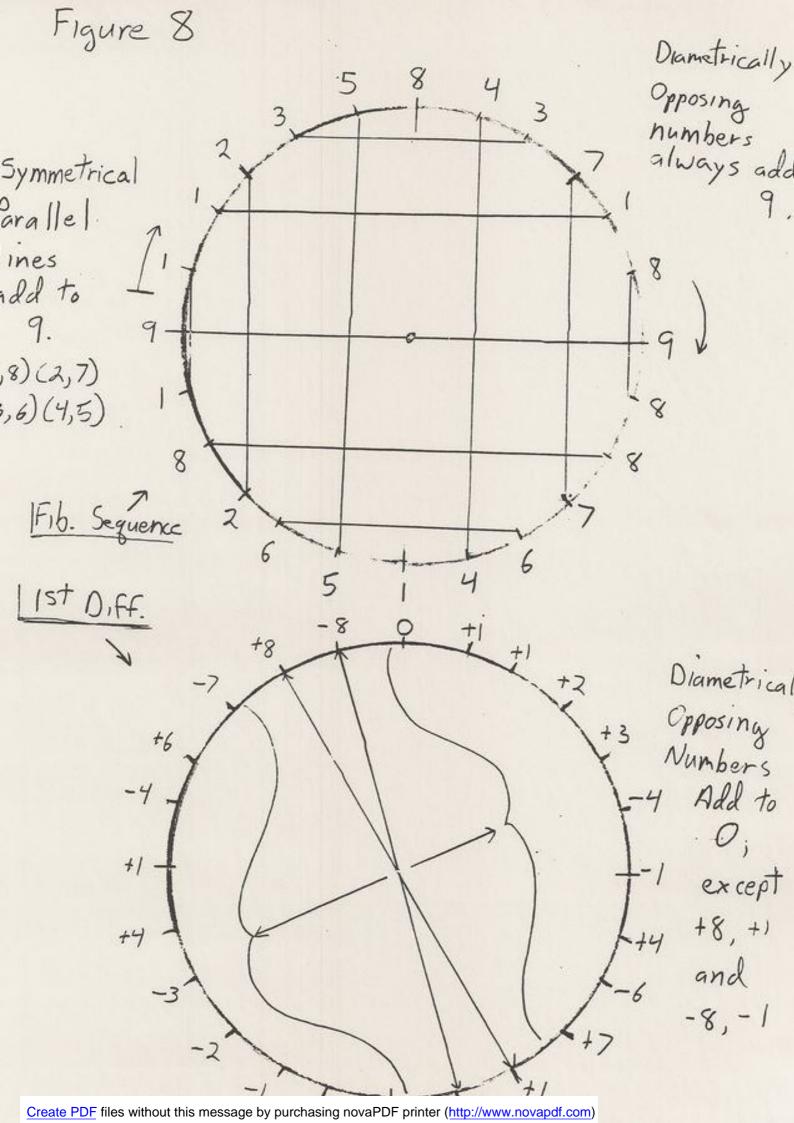
Figure 6

SINO-TIBETAN ZODIAC ANIMALS, ELEMENT COLOURS.
TRIGRAMS AND MAGIC SQUARE

igure 7: Fractal Form of Fibonacci Sequence

STEP	FIBONACO		1 ST
215	ELEMENT	sum	DIFFERENTI
	1	1	0)
2	2	2	+1
3	3	3	+
4)	5	5	+ 2
5	8	8	+ 3 (
6	13.	4	-47
7	21	3	-/
8	34	7	+4
9	55		-6 +7
10	89	8	
1)	144	9	+1
12	233	8	-1 opposi
13	377	8	O Polar
14	610	7	-1 -
15	987	6	-1
16	1597	4	-ス -3 +4
17	2584		-3
18	4181	5	
19	6765	6	+1
20	10946	2	-4
21	17711	8	-4 +6 -7
22	28657	1	
23	46368	9	+8
24	75025	j de la companya de l	- 8
25	121393	1 1	-0
26	196418	√ 2 ·	+
27	317811	remote 3	+ /

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Fibonacci Sequence Families If any two ascending numbers are used to start a Fibonacci type process, the result will fall into one the families denoted by O, A, O, D. (O family shown in Fig. 7,8) Flaure 9

Here's Theon's Hemonstration, from Socred Geomet by Lawlor, page 40: Sn+1 = Sn + Dn Dn+1 = Sh + Sn+1 10 11 12 13 14 18 19 10 21 11 13 24 Repeating In the expanded form of this process, On Sn more accurately, then draw away (page 42). More girst for the mill. curious, el? Later, al

Marko, Here are the 4 families of Fibonacci Process possib Create PDF files without this message by purchasing novaPDF printer (http://www.novapdf.com)

Hello Marco.

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Aloha.

Alastair

THOUGHTS UPON READING MARCO RODIN'S AERODYNAMICS

BY ALASTAIR COUPER

February, 1996

The following is an admittedly rambling tour through some of the ideas which I have been considering which may help show a way through Marco Rodin's ideas in his book Aerodynamics to a link with more established theories and concepts. And hopefully go beyond them. Like most visionaries, Marco's message is hard to understand and set in a very personal language. The life work of the seer is to make the translation accessible to others, lest what was valid in the original perception is lost to humanity. So hereby offer my small effort towards the process distillation of the essence which could lead to an experimental test of these ideas. Lest one be dubious of such "channeled" material that does not contain an established flow of logical continuity with previous theories, let it be pointed out that in the new energy paradigms even so called ponderable matter itself seen as a vessel or channel through which the ubiquitous energy of existence flows. In the same way the mind can shape the same life force and perceive directly new concepts; this is old hat for many of the most creative in all walks of life. At the same time distortion is inevitable, and the process of creation then involves discernment of the essence, a process which has been called "1 percent inspiration, 99 percent perspiration".

Marco conceives of a toroidal form upon which a coil of very specific geometry is wound. This coil may or may not be a conventional copper conductor, there is no clear indication of how the winding is to be energized. The details of the flow of energy are to be obtained from his Sunflower Map, which is an elaborate numerological scheme rendered on the surface of the toroidal form. He expects strong gravitational effects from a properly executed and powered winding. Throughout his book he uses conventional ideas in unusual ways: fractal, hologram, monopole, phased array, synchronized electricity all appear, the effect being more like poetry than anything else. It is these concepts which bare further scrutiny.

The foundation for the whole book lies in the numerological tradition, which is ancient, probably something handed down from the Sumerians along with their astrology and geometry. As a modern, the whole of numerology seems trivial at most, and with various cultural overlays, downright superstitious. The key numerological operation is cross addition, wherein a given number's digits are added to each other horizontally and reduced to a single digit 1-9. Thus, 5682 becomes 21 becomes 3. Marco begins with the sequence of powers of two: 1,2,4,8,16,32,64.... and turns this into a repeating pattern: 1,2,4,8,7,5,1,2,4,8,7,5. The claim is that this doubling sequence is seen in all life processes and throughout nature. Refer to figure 1. It is this

sequence, joined by its reverse, which form the bifilar doubling circuits layered around the torus. The quandary is, what energy conditions do these numbers refer to ? The remaining numbers gap space pattern:3,9,6,6,9,3,3,9,6,6,9.3... separates the previous circuits. It is to be presumed that this sequence is associated with a vorticity of the vacuum or electromagnetic field between the conductors. It is shown that when these sequences are laid out in a grid, and various groupings are made using the horizontal addition, a fractal effect occurs where the same sequence of numbers appears at higher and higher levels of groupings. One is immediately reminded of the various examples of period doubling leading to chaos that are seen in all sciences these days. These bifurcation maps, such as that produced by the much studied logistics equation, all show a repeating pattern at all levels of magnification, much as does the Sunflower map.

It is not known to what level these bifurcations of a physical system extend to. Some would say they extend all the way to the quantum level, and that fractals provide a means for the ever troublesome "collapse" of the wavefunction. All that is required to generate fractal behavior is two things: nonlinearity and iteration; which is to say take a nonlinear process and feed back some form of its output to its input. The numerological binary doubling sequence as used by Marco is indeed nonlinear and iterative, so it should be no surprise when he shows us the repeating fractal patterns of the Sunflower Map. And yet it is compelling at the same time. The question I ask at this point is: What can the study of fractals say about the possible extension

of our theories of electromagnetism and gravity ?

Conventional engineering uses Maxwell's equations as its guide to field effects. These equations were developed through the use of experiments measuring the physical forces exerted by extended bodies, in effect glossing over the fine details which may be present in the fields. The flavor of this blurring occurs in the following infinite series expansion of 1/x-1:

For any finite number of elements on the right hand side, the series is undefined at x=0. But if the series is allowed to go to infinity, then the left hand side results, which is undefined at x=+1. This problem with infinities pops up like mushrooms in the lawn order of physics. Can linear math be trusted? Another case in point is shown in figure 2. Everyone has seen what happens when iron filings are used to show the shape of the field around a magnet. This is misleading in that each iron filing becomes a magnet itself, and what is shown is actually the interaction between the two magnets. When the field is scanned by electrons, the picture is radically altered, and a complicated, apparently

fractal pattern emerges. My guess is that with suitable technique similar, dynamic result could be obtained for the static electric case as well. I feel that the "internal structure" which Bearden uses in his writings to describe the vacuum state is not random in any sense, but perfectly chaotic or infinitely structured. Marco has said "there is no chaos", which I take to be in the sense of no disorder. (The Koran states: Not an atom moves, which He doesn't know.) So white noise is the signature of infinite information. And the fractal road of bifurcations is a (perhaps one of many) map of the territory. It is the virtue of the fractal approach to ungainly systems that high orders of complexity can often be collapsed to a very simple model which mimics the overall characteristics, not in the sense of a linearized approximation, but in the manner in which noise and order (or information) are transmitted by the system. Marco's mathematics purports to be a sort of Rosetta stone for modeling the ultimate order on the level of the quantum.

Dan Winter's writings have many points of contact here, particularly in the use of fractals, of toroids of specific geometry, and the notion that form and ratio are primary. In Alphabet of the Heart, he shows how spin and shape of the Unified Field conspire to effect the cascade of wavelengths from long into short, and vice versa, by sacred stone architecture and biological systems; and thereby allowing the translation of energy from different frequencies. Note what a slippery concept "energy" is. We all seem to want it, and yet we don't really know what it is. In the old days, energy was always tied to matter, as was electrical charge. But if we conceive of mass or charge as forms of energy, then all our definitions become circular. So the question of what it is that waves is an old one, and one that won't be answered by our subject-verb-object linguistic tight shoe. Here is Dan's version of the story of the One substance:

"When you have only one kind of flowing material to work with, it is like the universe is one giant flowing ocean. Then the only shape you can make is the vortex... which makes donuts. Hydrogen as the basic building block of all the atoms, is really a wave shaped into a donut or torus."

"The fractal nature of the waveform creates gravity. The relationship of the electron shell to the nucleus is fractal, as both have Platonic symmetry, and this permits the cascade for the wave to fall into shorter and shorter wavelengths. We call that one way wind gravity. Hydrodynamically it is a flow between frequencies, lower to higher, into a center, induced because the symmetry is fractal. It is the nature of recursion itself that creates gravity. It is that recursion or self-imbeddedness that creates the attractiveness in waveforms that draws them back to center, recursively making them nest in more and more self-imbedded patterns."

It is this vortex mechanics which Marco is endeavoring to construct at the center "nozzle" of his torus form, or the "Primal Point of Unity". The swirling and spiraling of the Sunflower map as it topologically distorts in the center gives the impression, artistically anyway, of the cascade between frequencies. It is as if Marco is attempting to construct a macroscopic electron. Is it possible that the flow of electrons in wire could be used to orchestrate this vortex flow of energy? We need to conceive of the energy as distinct from the moving electrons, as Bearden points out. After all, the drift of electrons in a conventional wire is only millimeters per second, whereas the energy involved in that flow, or ON that flow, travels at close to the speed of light. The work of David Bohm provides an additional insight here.

Bohm has developed an alternative form of quantum theory which provides for a very different interpretation of what happens at the subatomic level, although it gives the same numeric results as the standard theory. This is proper, as quantum physics to its credit can boast very precise levels of agreement between theory and experiment, although that is possibly a case of finding what is looked for. I will quote here from the book Turbulent Mirror, by Briggs and Peat.

"Bohm's 'causal interpretation' is a proposal that introduces nonlinearity into the quantum theory. He realized that it's possible to write down Schrodinger's equation in a new way, essentially by splitting it into two parts. The first part describes a sort of 'classical electron'. The second equation describes a bizarre 'potential' in which the electron moves, a kind of infinite sensitivity possessed by the electron (or other particle) to its surroundings. Bohm calls this sensitivity the 'quantum potential'....

The quantum potential that dictates the way an electron moves is nonlinear and is determined, in an unimaginable way, by all the ...particles that surround the electron in question. The quantum potential controls the movement of an electron inside an atom, or as it travels inside a piece of experimental apparatus.

Because of the extreme sensitivity of the quantum potential, an electron is constantly pushed into bifurcation points along its path, regions where it may be flung in one direction or the other. So complex is this nesting of bifurcations and wildly fluctuating regions that the result is the indeterminism and unpredictability that characterize the movement of an individual quantum such as an electron, 'quantum chaos' as it's sometimes called. But as far as Bohm is concerned, the quantum electron's movement is not one of chance and uncertainty; rather, it is totally determined but by a potential of such endless complexity and subtlety that any attempt at prediction is out of the question.

For Bohm the quantum potential- which every particle possesses-is an infinitely sensitive feedback with the whole. Picture the electron as an airplane controlled by an automatic pilot. The quantum potential associated with the particle is analogous to a radar signal informing the automatic pilot about everything in the plane's environment. The signal doesn't actually power the plane but can influence its course profoundly...."

This idea of an information signal telling a particle where to go is also found in Bearden's writings, where he describes a scalar electric potential as being like a patterning of the chaotic vacuum, and that a spinning particle (spinning IS charge) "hooks" into the potential, somewhat like gears meshing. The particle is not pushed by the ESP, but moves from its own energy source. The ESP only provides the pattern or information of where to move. I begin to get the image of the electric field as having a quality of complexity and baroque curliness as does the Mandelbrot set. Our notions of requiring work to move charge in a wire comes from the fact that our circuits (circular charge flow is just that case for which Maxwell's equations work) discharge the electron potential in random collisions, delivering the depotentized electron back to the source where it must be pumped back up. Thus the original source potential is discharged.

Moray King has made a similar point in noting that electrons are not useful for polarizing the vacuum, due to the ease with which they are buffeted about by the quantum chaos. This is part of why electrons are conceived of as a 'smear'. He states that one must coherently move masses of nuclei to achieve a stable vacuum polarization, and the heavier the nuclei, the better. He further states that energy effects are also reported from the use of coils which cancel their magnetic fields, such as caduceus or bifilar wound coils. All the instances cited require a sudden, abrupt change of current, such as occurred in Tesla's apparatus when ball lightning was produced. Dr. Hooper produced research linked the effects of flux canceling coils with gravitation, which were quite weak in his experiments. He has stated that increase of the speed of the charge flow would vastly increase the effects he measured. Now increasing the speed of sounds like superconductivity, and requires the conduction orchestrated movement of all the charge carriers in synchronism. This story is seen in Marco's writings as well, where he says that his geometry ensures the longest possible collision free path, allowing the flow of synchronized electricity, which he also refers to as accelerated electricity. (Could cooperating electrons be referred to as a smear campaign ?) He claims that superconduction is a result of form and proportion, and not of content. Bill Ramsay has measured the flux characteristics of an initial prototype of Marco's coil, finding that it lies in between the open radiation of a solenoid and the enclosed flux of a usual toroid, with partial flux cancellation due to the bifilar configuration. Perhaps his toroid geometry

creates a synergy of the separate quantum potentials, each telling all to move in such a way as to eliminate resistance. The of 'gear teeth, mesh, number crunching, entrainment and transmission' throughout Marco's glossary seems to me to point to this idea. A very strong intuition that I have at this point is that if indeed this synergistic flow of energy is to be orchestrated in a wire coil, the driving or inducing signal will not be a simple sine wave or square wave, but must itself partake of the fractal and vortexian natures. It will have to reference way a transcendental condition, transcendental number PHI which can not be contained in a number system, but can be invoked by simple geometry. The recent experiments by Dr. Faile as reported by New Energy News have a similar theme to the foregoing. He has found that it is possible produce significant power from a coil of braided shielded cable of specific form. In his evolution of this braided form he seems to be closing on some primary geometrical archetype. The signal he is rectifying appears to be the same as that which produces the 1/F noise in Hodowanec style gravity wave detectors, and so is very clearly fractal in nature.

Only a small 'leg up' on the natural quantum chaos would be required for large results to be obtained. At present, chaos theory and Fibonacci sequences are making a big stir in theory and Fibonacci sequences are making a big stir in investment methods on the stock exchange. There is presently an artificial intelligence program using these concepts to learn and artificial intelligence program shows results which consistently make predictions. The program shows results which consistently give an advantage of a fraction of a percent over the usual odds. Give an advantage of a fraction of a percent over the usual odds. This is not impressive at first sight, but when one moves around large sums daily with an assured gain, the advantage quickly large sums daily with an assured gain, the advantage quickly accumulates. This is similar to the presumed immensity of the background 'jitterbug' energy. A special geometry would give a return based on how well it accorded with a preferred path of least resistance.

Further impetus in this direction comes from the work of Further impetus in this direction comes from the work of Terence McKenna and his Time Wave theory. While this theory is as intuitive and elaborate as Marco's, it is also implemented in software which allows for some sort of testing. The theory states software which allows for some sort of testing. The theory states that the nature of time is not one of simple linear flow, but has a fractal quality with the usual attribute of repetition of self a fractal quality with the usual attribute of repetition of self similar pattern at various levels of duration. The quality which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his software is referred to as "novelty", and which is charted by his softwar

He began with the King Wen sequence of the 64 I Ching hexagrams, which he calls a "profoundly artificial arrangement", as a model for the way in which time's changes could be mapped. He then took the first order difference between each hexagram, a sort of first derivative of the changing number of lines in the sequence. This generated a random appearing series of values.

using 1,2,3,4, and 6 (no changes of 5). It was then noticed that if this "waveform" were turned around in time and inverted, it would overlay the original at each end. This impressed Terence at the time as there were several interesting numerical relations that came out of this. What I thought of when reading this for the first time was that he was constructing something like a forward moving particle/ backward moving anti-particle pair. (Note the similarity to Marco's use of the forward and reverse binary doubling sequence.) He took this pair of waveforms through a series of mappings, all intuitively guided, to finally produce a sequence of 384 numbers which are the "seed" of his time wave.

This seed is then used as the basis in what is called a fractal transformation. If the 384 numbers are considered as elements of a discreet function v(n), then the function f(n) is the fractal transform given by:

$$f(n) = \sum_{i=-\infty}^{\infty} \frac{v(n \cdot a^i)}{a^i}$$

This function is constructed of an infinite number of versions of the original function which are stretched or compressed, and added together. In practice the number of additions need only go as far as required for numeric accuracy. The Time Wave Zero program uses this function as a way to calculate backwards in time from a given date. When Terence chose Dec.21, 2012 as the end date, he found that there was a very compelling coincidence between the sudden changes in the time wave and historically significant events on earth, be it the appearance of mammals eons ago, or the sudden change of consciousness in the mid 60s. The function can be interpolated to any length of time, but there is no real interpretation as to what is being presented at the micro second level. What is of interest to me in this is some notion as to how one could proceed in creating other nonperiodic waveforms of a fractal nature. (See Figure 3)

A complementary analysis of relevance is given by Lama Govinda in his book The Inner Structure of the I Ching, shown in figure 4. Here we see the result of taking the King Wen sequence, a temporal arrangement, through various transformations to give an abstract arrangement which is able to be shown most succinctly by this geometric mandala. While I do not want to push any analogies too hard, what the time wave and this form represent to me is a particle and wave duality; one an unfolding in time, the other a sort of Platonic solid existing in some timeless dimension. Or perhaps a flowing liquid solution and a crystallized solid. (As Whitehead says, the sole appeal is to intuition.) This seems to define the essence of sacred geometry, which is to construct a shape or form, be it toroid or pyramid or whatever, that is the crystallization of a temporal wave form. The toroid which Marco and others favor is clearly a primary form. What can be said about the doubling sequence ?

As pointed out by Lawlor in Sacred Geometry, the division of the primordial unity into two is symbolized by the square, and the diagonal. It is the essence of cellular growth and expansion. Doubling is a motion which makes no reference to anything but itself, and when out of control it causes cancer or explosion. So doubling requires a form, at least conceptually, in order to be useful. Marco maintains that the doubling sequence is fundamental to all energy processes. On the other hand, the Golden Mean spiral would appear to denote a rather different process as mentioned earlier. However, Marco shows that there is a relation in his math between these two energy archetypes which appears in figure 5. This is a numerological transform which does not have any parallels in conventional math that I am aware of. But it does seem to me to be significant.

The mood of numerology is to view numbers as beings or process rather than quantity, so it is very difficult to see how these ideas could link with our normal scientific notions. These notions, after all, are a cultural framework and subject to change without prior notice. Marco contends that the digits 1-9 an essential perfect system. In the Kabbalah, it is said that the Hebrews thought in terms of twelve, even though they counted in the decimal system. The Chinese thought in powers of two, especially 8 and 64. In figure 6, we see these systems combined in a mandala of Tibetan origin. (The magic square at the center is one which is also used by John Searl in his design process.) The transcendental numbers like PHI and root two do not have a simple numeric representation; they seem to point another dimension than Earth bound integers. But again there is a mysterious connection between these various numbers that caught

I became intrigued with the idea of attempting to create a waveform which would invoke in some way the golden mean spiral vortex. Moray King has suggested using a "chirp" or logarithmic swept sine wave as an excitation for energy devices, in order to stimulate the cascade of energy between frequencies. But is there a way which would partake of the fractal nature in a direct way ? I began by examining the elements of the Fibonacci sequence, which gives an arbitrarily close approximation to PHI by taking the ratio of adjacent values. If one takes the horizontal sum of each value of the series, the result will be as shown in figure 7. It is seen that, regardless of the numbers used to start, the sequence of numbers will always have a period of 24, with a significant symmetry between the first 12 entries and the second. also symmetry in the first order difference. immediate question was, "Why 24, or twice 12 ?" 12 months, 12 inches, 24 hours, etc. Curiouser and curiouser. In figure 8 I show further the symmetries which come from this sequence of numbers. In fact, one can start with any two ascending numbers, and following this Fibonacci process, end up with a very similar pattern. There are only four different patterns which are formed using this process, and these groupings are shown in figure 9. Are these images indicative of a real

Universality ?

I can't say any further at this stage. The experiments which I am planning will make use of the Fibonacci fractal as a seed for a pseudo-random signal generator, calculated by computer and output through a D/A convertor. This assumes that these sequences relate to amplitudes of voltage levels. Marco feels that microwave or optical frequencies are more appropriate, so what low frequency experiments would show is unclear. Perhaps FFT analysis of input versus would show the creation of new frequencies by an otherwise linear system. But this is only a guess as to the question raised at the beginning. I do note that in the Mauntauk experiments, Al Bielek tells of the use of an IBM 360 computer to do the calculations required to generate the necessary drive signals. What was being calculated there ? How does numerology relate to energy states in electrical circuits ? I must leave these idle speculations for now, and do something towards the next step. I hope that, if nothing else I have stimulated thought and perhaps expanded a few minds.

Further Reading:

AERODYNAMICS, by Marco Rodin, avail. from P.O. Box 90302 Honolulu, Hawaii 96835. 808-944-3396

ALPHABET OF THE HEART, by Dan Winter

EXCALIBUR BRIEFING, by T.E. Bearden, avail. from Intl. Tesla Society.

TOWARDS A NEW ELECTROMAGNETICS, by T.E. Bearden.

WHOLENESS AND THE IMPLICATE ORDER, by David Bohm, 1983, Ark.

TURBULENT MIRROR, by Briggs and Peat, 1989, Harper and Row.

THE INVISIBLE LANDSCAPE, by Terence Mckenna, Harper Collins.

THE INNER STRUCTURE OF THE I CHING, by Lama Anagarika Govinda, 1981, Wheelright Press.

SACRED GEOMETRY, by Richard Lawlor, 1982, Thames and Hudson.

New Energy News, October 1995. article by S. Faile.

New Energy News, December 1995, article by Bill Ramsay.

Here's Theoris Demonstration, from Sacred Geometr by Lawlor, page 40: Sn+1 = Sn + On Dn+1 = Sh+ Sn+1 10 12 13 19 21 Repeating In the expanded form of this process, $\frac{0n}{5n}$ more accurately, then draw away (page 42). More grist for the mill. Curious, el?

Here's Theoris Demonstration, from Sucred Geometr by Lawlon, page 40: Sn+1 = Sn + On On+1 = Sh + Sn+1 11 12 13 15 18 19 10 21 22 13 24 Repeating In the expanded form of this process, On Sn 8) more accurately, then draw away (page 42). More girst for the mill. Curious, el? Later, al



I intend to work with Marko Rodin, Oscar Hsu, Scott Nelson and Bill Ramsey in any capacity required to bring success and maturity to this valuable technology. A proposal will take about 60 days to do the necessary research and cost analysis. Up front seed money will be needed to cover the cost of communications, research and day to day expenses. It is estimated we will need about \$35,000 to began the proposal phase.

Proposal Outline- What To Expect

The proposal will out line a 3 phase program. The primal point of white the tenter. This singularity is not made out of known elections above what can be precised. It is also called the proposal will out line a 3 phase program. The primal point of white the tenter. This singularity is also called the proposal will out line a 3 phase program. The primal point of white tenter. This singularity is singularity in the middle of black hole black hole black hole lines and foundation of the Rodin Effect and/or zero-point field spectrum which could give rise to gravitational forces. The outcome of these experiment will determine the success of the entire program.

Phase II Design and Develop Functional Prototype - In this phase we will conceptualize, design and develop functional prototypes that demonstrate the Rodin So Windhing is conceptualize, design and develop functional prototypes that demonstrate the Rodin So Windhing is of effect in a practical real world demostration.

Product specification will be written for the purpose of creating marketable products.

Production protocols will be defined, and marketing strategies will be developed.

Phase III Preparing the World for the Rodin Effect - This phase will implement the legal, marketing and production protocols and prepare the global markets for the products that we have to offer.

The positive results of our test will lead to the design and development of viable products. These product will change the Earth and Humane destiny in a manner that will allow us to become true galactic citizens in our universe.

Sincerely I AM,

Dennis S. Watts

Vortex Energy = tornado, hurricane, dust devil,
water plume, mush room cloud (nuclear)
- can be made out of water, air, electricity,
solar systems
- the universe is one big black hole
- wery atom is a minuture black and white hole.
diamond represents perfection, the vortex, #9, the axis, linearity, all
newledge and wisdorn the zenith

TOTAL P.22

OSCAR HSU TOROID AERODYNAMICS

July 23, 1998

Earl Bakken P.O. Box 384360 Waikoloa, HI 96738

Dear Sir:

On July 24, 1998, Marko Rodin will present to you a paper I have written on weight asymmetries observed by Bill Ramsay in two Rodin-Ramsay coils that he constructed. This paper discusses the implications of geometry on weight modification from the viewpoint of quantum electrodynamics (QED).

Briefly, Bill Ramsay observed a "sidedness" to two coils. When weighing two coils he found that each coil weighed 8% more with one side up than it did upside down. Classically, of course, this is completely unexpected. It shouldn't matter which side is up or which side is down—the coil should weigh the same in both configurations. However, Ramsay reported that the weight asymmetries were consistent and even additive or subtractive when both coils were weighed together in all possible combinations: up-up, up-down, down-up, and down-down (top coil vs. bottom coil). Suffice it to say these results are very puzzling.

If true, the results would be nothing short of revolutionary. Weight depends on gravity (W = mg), and our best understanding of gravity comes from Einstein's theory of general relativity (GR). In GR, mass curves spacetime and gravity is simply a manifestation of a curved spacetime; hence, the basis of gravity is purely geometrical.

Bill Ramsay's results suggest something intriguing...if mass can affect the geometry of spacetime as in GR, perhaps geometry can affect mass (the converse). This is not an isolated speculation. Hal Puthoff believes "gravity can be understood as a sort of long-range Casimir force" where Casimir force refers to a force arising from the vacuum as a result of a certain geometry. For example, rectangular plates give rise to an attractive Casimir force, while a spherical shell gives rise to a repulsive Casimir force. The Casimir force depends on the way the geometry of mass creates asymmetries in the radiation pressure of virtual photons in the vacuum. Normal gravity might thus be a "push" coming from the radiation pressure of virtual photons.

If the Rodin-Ramsay coil couples to the vacuum in such a way as to introduce asymmetries in the local spacetime curvature around the coil (a GR interpretation), gravity might be stronger or weaker at different halves of the coil. Notably, M. Rodin has always advocated this sort of an interpretation.

Alternatively, the geometry of the coil could introduce a Casimir-like "push" on one side and a "pull" on the other that causes the weight of the coil to appear greater on one side or lesser on the other. In either case, the most important thing is to confirm Ramsay's empirical observations by simple, rigorous testing. Good science always demands replication of results and numerical data for credibility. Hence, I am proposing a simple repeat of Ramsay's experiments with an electronic digital scale to definitively test Bill's observations. just

OSCAR HSU TOROID AERODYNAMICS

July 23, 1998

Ms. Georgene Busch Chief Financial Officer P.O. Box 384360 Waikoloa, HI 96738

Dear Ms. Busch:

SUBJECT: REPLICATION OF WEIGHT ASYMMETRIES / PROPOSED BUDGET '98

I'm sure Marko will read my brief, 1-page summary of my proposal to replicate the empirically observed weight asymmetries in two Rodin-Ramsay coils reported by Bill Ramsay. Although it is unnecessary, if you are interested, you may refer to my short extract paper "Weight Asymmetries in Two Rodin-Ramsay Coils" for a more in-depth discussion of the concepts and results.

I am more than willing to work with you on the specifics of this budget because I feel the work is very important; therefore, please feel free to contact me at the above phone number, fax, and address.

In general, the financial costs of replicating Ramsay's results are trivial. According to his estimates, each coil costs less than \$25 to construct (personal communication). Ramsay buys the child's toy "Rock-a-stack," made by Fisher-PriceTM to use as the form to wind his copper wire around. This toy consists of five plastic hollow rings: red, orange, yellow, green, blue, of different diameters. The set is priced at about \$4 at WalmartTM.² Of the five rings, two of them display weight asymmetries when wound with copper wire according to a Rodin-like geometry: the blue one and the yellow one.

The blue ring requires 79' of copper wire. The yellow one requires 122' (Bill Ramsay "Rodin Coil Design". Bill uses #24 enamel wire and paid \$4 for a lb. of wire (800' in a lb.); hence 200' might cost \$1 but I think Bill can only buy by the pound from his source, an electric motor rewinding shop2 (if my memory's right).

The hollow plastic rings used as a form to wind the wire around is not very rigid since they are hollow and hence are easy to distort if the wire is wound tightly. Hence it is necessary to cut the rings in half and fill them with a filler or stuffing. Bill uses foam. Hence a sharp knife is also needed. For an X-acto knife I estimate \$4. As for foam I do not know how much they cost (they are free in packages), but I am guessing they are another \$4 when you buy them from a source (I am sorry I cannot be more specific, but Bill did not provide pricing in his paper for foam²). [Since Bill specified a total price of \$25 for a set of two coils, foam is probably cheap].

The knife was also used to trim off the raised lettering on the rings and to rough up the smooth finish of the rings so that wire could be wound snugly along its contours. At the start and finish of each winding, household glue and/or tape was used to affix any loose windings. Bill uses a white fiberglass tape that is also available from the electric motor rewinding shop he shops at. Since fiberglass tape is a specialty item, I estimate that it might cost \$4 (Bill seemed to indicate that it would cost more since a single roll seemed to cost him around \$10, but you may want to check with him to be sure about that, I do not remember the price exactly). Super-Glue™ can cost \$4 too. As you can see, I have used \$4 as a base price for each component.

¹ Bill Ramsay "Preliminary Rodin Style Coil Findings" in Marko Rodin's recent book.

² Bill Ramsay "Rodin Coil Design" also in Marko's recent book.

PERSONAL COST FOR REPLICATING RAMSAY'S RESULTS

As you can imagine, replicating Ramsay's work is relatively trivial—after winding a set of coils, one needs only weigh them alone and on top of one another to repeat the results. Data collection is thus fairly trivial.

What will be non-trivial is the write-up of the results if they turn out to be true. Then interpreting the results in the light of what is known in modern physics so that the implications can be correctly enunciated will be a time-intensive effort.

My budget for the write-up of papers on the results is included as Proposal #3.

As I understand it, the mission statement of Earl Bakken's collaboration with Marko Rodin entails preparing his work in a format that can be readily understood by the public and appreciated by the scientific community at large so that Rodin's work will not be lost and unappreciated. To that end, the most important thing, I think, is to translate his work into the language and concepts of modern day physics so that physicists and other scientists will be able to assess and discuss his work intelligently. That is why I have worked so hard to generate an intelligible discussion of Marko's mathematics and coil in terms of both general relativity and quantum electrodynamics (see "The Toroid Map as an Einstein-Rosen Bridge" and "Weight Asymmetries of Two Rodin-Ramsay Coils").

Marko Rodin has expressed to me in oral communications that he firmly believes that his Toroid Map involves both a general relativistic description and a quantum mechanics description—in that the Toroid Map applies both to the quantum level and the general relativistic level (microscopic to macroscopic domains). I have found that by working independently from first principles, Marko's contention that with his coil he can tap the matter-energy creation process is plausible.

In my second proposal I will discuss the second-half of Ramsay's empirical observations that I chose not to address in my first paper ("Weight Asymmetries" out of a desire to maintain credibility in the absence of documentation (photos, etc.). In it, I will discuss findings that suggest that Rodin's contention that his coil generates a white hole/black hole pair might have merit to it.

Ramsay's findings give me a certain preliminary confidence that theoretically at least, there is a good correspondence between general relativity's description of the curved spacetime of a single Euclidean space wormhole with Marko's Toroid Map. The correspondence describes a rotating black hole/white hole pair. In my last conversation with Marko, he agreed.

The possibility of engineering the vaccum locally, even of engineering relativity directly through nothing but geometry is even more startling than the first suggestion by Ramsay that Rodin's geometries can alter weight itself. Hints of a new paradigm and field of study are evident and deserve serious consideration.

Sincerely yours,

Oscar Hsu

Theoretical Physicist

TOROID AERODYNAMICS

OH/no



1.2 BLACK HOLE EVAPORATION

In 1975 Hawking⁴ discovered the so-called process of black hole evaporation. According to the uncertainty principle for energy, $\Delta E \Delta t \gtrsim \hbar$, that is, space all the time and everywhere expperiences so-called quantum vacuum fluctuations at a very small scale of time, of the order of 10^{-14} s and less. During these quantum fluctuations, pairs of particles appear for an instant from the emptiness of space—perhaps an electron and an antielectron pair or a proton and an antiproton pair. Particle-antiparticle pairs are in effect all the time and everywhere being created and destroyed. Their destruction is so rapid that the particles never come into evidence at any everyday scale of observation. For this reason, the pairs of particles everywhere being born and dying are called virtual pairs. Under the conditions at the horizon, a virtual pair may become a real pair. This is called particle-pair production.

In the Hawking process, two newly created particles exchange energy, one acquiring negative energy -E and the other positive energy +E. Slightly outside the horizon of a black hole, the negative energy particle has enough time Δt to cross the horizon. Therefore, the negative energy particle flies inward from the horizon; the positive energy particle flies off to a distance. The energy it carries with it comes in the last analysis from the black hole itself. The massive object is no longer quite so massive because it has had to pay the debt of energy brought in by the negative energy member of the newly created pair of particles. That is why it is called black hole evaporation.

1.3 WHITE HOLE EVAPORATION

At the horizon of the white hole on the other side, just the opposite process happens. The positive energy particle is sucked into the white hole and the negative energy particle flies off to a distance. The Hawking evaporation process capitalizes on the fact that space is nowhere free of so-called quantum vacuum fluctuations, evidence that everywhere latent particles await only opportunity—and energy—to be born. Associated with such fluctuations at the surface of a black hole, a virtual pair of particles or photons can be caught by gravity and transformed into a real particle or photon that evaporates out into the surroundings and an antiparticle or counterphoton that "goes down" the black hole. Conversely at the surface of a white hole, it is the particle or photon that is sucked into the white hole and the antiparticle or counterphoton that flies off.

1.4 MATTER-ANTIMATTER ANNIHILATION

At the singularity where the black and white holes converge a very interesting thing should then happen. Antiparticles are rushing toward the singularity from the black hole side, while their particle counterparts are simultaneously rushing towards the singularity from the white hole side. As matter and antimatter collide, they should annihilate, producing light, or photons. Rodin calls this process, Point Energy Creation Physics.

1.5 BLACK HOLES EXIST

The X-ray telescope UHURU floating above the atmosphere discovered in 1971 the first compelling evidence⁶ for a black hole, Cygnus X-1. Since then, other black hole candidates have been found in X-ray binary systems, for example in nova V404 Cygni⁷ and in Nova Muscae.⁸ Recently, H. Ford et al., using the Faint Object Spectrograph of the Hubble Space Telescope, have observed gas orbiting at high velocity near the nucleus of the elliptical galaxy M87. This observation provides a decisive experimental evidence for a supermassive black hole, source of the strong gravitational field that keeps the gas orbiting.



OSCAR HSU Toroid Aerodynamics

July 23, 1998

Ms. Georgene Busch Chief Financial Officer P.O. Box 384360 Waikoloa, HI 96738

Dear Ms. Busch:

SUBJECT: PROPOSAL #2: ENERGY GENERATION / PROPOSED BUDGET '98

The background for this is my brief, 2-page executive summary of my proposal to replicate the empirically observed vortex asymmetries in one Rodin-Ramsay coil suggestive of the creation of a putative construct consistent with the description of a vortex. Other additional background include my extract paper "The Toroid Map as an Einstein-Rosen Bridge", and a 6-pg Memorandum explaining the proposal in as lay terms. Although it is unnecessary, if you are interested, you may of course refer to my short extract paper "Weight Asymmetries in Two Rodin-Ramsay Coils" for a review of related concepts and results.

As stated before, I will work with you on the specifics of this budget because I feel the work is very interesting and potentially of great import; therefore, please feel free to contact me at the above phone number, fax, and address if you have any questions or wish to discuss matters further.

In general, the financial costs of replicating Ramsay's results are trivial as I said in my previous proposal. According to his estimates, each coil costs around \$25 to construct (personal communication). Ramsay buys the child's toy "Rock-a-stack," made by Fisher-PriceTM to use as the form to wind his copper wire around. This toy consists of five plastic hollow rings: red, orange, yellow, green, and blue, of different diameters. The set is priced at about \$4 at WalmartTM. Of the five rings, two of them display "sidedness" when wound with copper wire according to a Rodin-like geometry: the blue one and the yellow one.

The blue ring requires 79' of copper wire. The yellow one requires 122' (Bill Ramsay "Rodin Coil Design" also in Marko's recent book). Bill uses #24 enamel wire and paid \$4 for a lb. of wire (800' in a lb.); hence 200' might cost \$1 but I believe Bill can only buy by the pound from his source, an electric motor rewinding shop.²

The hollow plastic rings used as a form to wind the wire around is not very rigid since they are hollow and hence are easy to distort if the wire is wound tightly. Hence it is necessary to cut the rings in half and fill them with a filler or stuffing. Bill uses foam. Hence a sharp knife is also needed. I estimate another \$4 for this. As for foam I do not know how much they cost (they are free in packages), but I am guessing they are another \$4 when you buy them from a source (I am sorry I cannot be more specific).

The knife was also used to trim off the raised lettering on the rings and to rough up the smooth finish of the rings so that wire could be wound snugly along its contours. At the start and finish of each winding, household glue and/or tape was used to affix any loose windings. Bill uses a white fiberglass tape that is also available from the electric motor rewinding shop he shops at. Since fiberglass tape is a specialty item, I estimate that it might cost \$4 (Bill seemed to indicate that it would cost more since a single roll seemed to cost him around \$10, but you may want to check with him to be sure about that, I do not remember the price exactly. Super-GlueTM can cost \$4 too. As you can see, I have used \$4 as a base price for each component.

Bill Ramsay "Preliminary Rodin Style Coil Findings" in Marko Rodin's recent book.

² Bill Ramsay "Rodin Coil Design" also in Marko's recent book.



still a good idea to repeat the experiments with a newly wound coils. Bill has a policy of not being involved with money so he has not demonstrated interest to me in being paid. I'm sure he wouldn't mind being paid and I think it is only fair, but you would have to coax him to accept any.

PERSONNEL COSTS for myself include: rent (\$438/mo.), utilities (gas, electricity, and water: \$50/mo.), and salary. As I said in the other budget, after meeting Marko, I took a leave of absence from school in order to do technical writing for him, specifically on the weight asymmetries reported by Ramsay. He has used my paper to get the support of Chick Lewis at Soligen to agree to doing the rapid prototyping for a Rodin coil according to Marko's design (see enclosed letter from Chick Lewis as supporting documentation). I spent a total of 440 hours (44 ten-hour days as Marko can attest to) in the first two months from April to May to work on and generate that paper (a month and a half). I have worked for Marko full-time for the past four months as a technical writer/content expert and in-house scientist/theoretical physicist. Those costs have included trips to the Caltech library involving gasoline for the car (\$5/wk.), xeroxing (\$5/wk.), and document preparation at Kinko'sTM (\$5).

On this project (energy generation) I have worked for three weeks to generate the extract paper "The Rodin Toroid Map as an Einstein-Rosen Bridge" to describe his work in the context of general relativity and to come up with the conceptual foundations for a novel form of energy generation using the intrinsic property of the vacuum to generate virtual particles and the peculiar property of black and white holes to prevent those particles from immediately annihilating themselves out of usefulness. The result is the novel concept of engineering spacetime directly to produce an energy creation device that taps the vacuum's continual process of virtual particle pair creation to funnel them into the center of a black hole/white hole pair. Their annihilation would result in high energy photons that can be converted to electricity using a solar cell. Hence for 3 weeks the gas and xeroxing of books and journal articles amounts to 3 wks. X \$10/wk. = \$30. When I worked for NASA at JPL on the Galileo Magnetic Fields and Particles Team I was paid a salary of \$20/hr. Hence for the work I have done on the paper I am asking for 225 hrs. x \$20/hr. ~ \$4,500. Food cost is roughly \$50/wk., \$200/mo. and hence \$150 total for the 3 wks. I spent writing & researching the paper and the technical memo. 3/4 of a month of apartment rent is roughly \$318.75 (at that time rent was \$425/mo.; it has now been increased to \$438). Utilities for that period is \$37.50 (.75 mo. x \$50/mo. for gas-heat, electricity, and water). Filing expenditures are (5 binders x \$4, 10 sets of sheet protectors x \$3, total \$50) Hence the total personal costs I incurred over the 6-wk. period that I spent researching and writing the extract paper and memorandum add up to about \$5,050.

PERSONAL COST FOR REPLICATING RAMSAY'S RESULTS

As you can imagine, replicating Ramsay's work is relatively trivial—after winding a set of coils, one needs only insert a solar cell or film in the center and hook the solar cell to a preamplifier, and oscilloscope, which Bill should have. Data collection is thus fairly trivial.

What will be non-trivial is the process of systematically attempting to find a system that will detect any "events" which are observed by the human eye but not photographable. Of course this includes the possibility of a null result—nothing being there, in which case the experiment must be abandoning. If there is an appreciable signal, then imporving the signal-to-noise ratio may warrant the need for more sensitive instrumentation as well as established detectors which is necessary to establish credibility. Then interpreting the results in the light of what is known in modern physics so that the implications can be correctly enunciated will be a time-intensive effort.

Proposal #3 contains the budget for conducting experiments and writing up the results in both book form and journal form.

Ramsay's findings give me a certain preliminary confidence that theoretically at least, there is a good correspondence between general relativity's description of the curved spacetime of a single Euclidean space



Memorandum

To: Earl Bakken, and Ms. Busch

CC: Marko Rodin, Scott Nelson

From: Oscar K.H. Hsu, Bill Ramsay

Date: 07/23/98

Re: Proposal #2: Free Energy-Making Miniature Black and White Holes

Abstract

"Described are results of simple tests performed on a number of small "model" coils constructed somewhat according to Marko Rodin's unique geometries. Rodin feels there is potential, with properly made and powered coils, to tap the universal energy-matter creation process with startling results."

The above is taken verbatim from Bill Ramsay's paper, a statement I find to be very useful to begin with. Surprisingly, I have reached the same conclusion working in reverse, starting with physics and working from first principles and only at the end looking at Marko's mathematics to see if there is a correspondence.

As a physicist, one of the things I am most interested in is particle pair creation and annihilation, for the insights it gives us into the nature of matter. Physicists have known for quite some time, that in the presence of a nucleus, a highly energetic photon (a single quantum of light) can spontaneously "decompose", as it were, into an electron and an antielectron, or positron.

I first read about this in a book that spoke of matter as being trapped light—"frozen light" were the exact words. The image of all of matter being light running in place or frozen light like ice cubes from water captivated me. It has an aesthetic appeal that I simply cannot describe:

The book spoke of Einstein's famous equation, $E = mc^2$, as being the mathematical embodiment of that principle. Naturally, particle pair destruction is simply the reverse of particle pair creation. Matter and antimatter collide, annihilating themselves and becoming light again, a photon whose energy $E = hf = mc^2$, obeys that simple equation.

However, that equation contains the seeds of "tapping the universal energy-matter creation process."

The vacuum is a funny place. Quantum mechanics says that particles and antiparticles are constantly materializing and dematerializing in a fraction of a second all around us. This is because the vacuum actually has energy in it, called the zero-point energy, contained in lots and lots of virtual photons. These photons can of course turn themselves into particles, as I said before; but since these particles

Bill Ramsay, "Preliminary Rodin Style Coil Findings" in Marko's recent book.



as an Einstein-Rosen Bridge" with the additional caveat that the Einstein-Rosen Bridge carry the additional modification in being terminated at the center into a rotating singularity.

The reasons why I make that comparison are based on similarity. Marko Rodin uses expanding and contracting tiles for his number coordinates that is similar to the expanding and contracting spacetime metric (distance between two coordinates) that Einstein used to construct his geometrical model of general relativity. General relativity is itself an inherently geometrical description of gravity, and some of Bill Ramsay's results with Rodin-Ramsay coils indicate a polarization of gravity with the use of Rodin geometries. The comparison is irresistible.

It is entirely possible theoretically to generate energy at the singularity of a black hole/white hole pair by using this Hawking process to accelerate matter and antimatter from opposite ends of space into the center where they collide, forming light and energy. Since the process of virtual particle pair creation occurs continuously using the energy of the spacetime fabric to drive it, there is no need for an energy input and the system will continuously produce and provide energy.

Marko has maintained all along that a coil built to his specifications can produce an inexhaustible supply of energy. If Bill Ramsay's results are to be believed, both with the observed weight asymmetries and with the plumes of subtle energy he observed, that may be possible.

Briefly, Bill reports that he had his wife observed "several interesting subtle and untestable attributes found with early coils; two in particular. One was an 18 turn, solid wound (full 10° segment) coil on a Blue form and the other on a Yellow form (fewer turns). These coils seemed to have "sidedness," even though it wasn't possible from observation to determine which side was which since the symmetry is exactly the same on one side up as the other.

But, one side was usually "up" during the winding; the side from which the coil was "approached" first. Both Bill and his wife, Jay, "dowsed" this side as the "light" and "going out" side with the other as the "going in" side, consistent with Marko's expectations of a "white hole, black hole" pair. [These are all Bill's words as they appear in his paper; continuing...] The "going out" side felt hot on the palm and the other colder and a bit disrupting.

When a small glass of tap water (from a deep well) was placed in the center of the Blue coil, light side up in subdued light, there was the appearance of a domed, cone shaped region extending from the water's surface to some distance above the glass; with twinkling pure white, tiny, dancing points. Bill's wife said it was like looking at the electrons in a molecule.

When this coil was turned other side up, there was a grayish almost ominous "void" in exactly the same region. The "black hole" side?" [end of quote]

I have spoken to Bill about these results which he and his wife saw and he described the plume of subtle energy that rose from the center of the Blue coil over the surface of the glass of water as extending up 10 cm in height! Needless to say, he attempted to photograph the phenomena with a PolaroidTM camera, but the phenomenon did not show up on film.

What interests me is the correspondence of Bill's observations with the idea of a miniature black hole/white hole pair. In a white hole, the physics of a black hole is reversed—light escapes from within the event horizon and shoots out, therebye giving it the name "white hole." At a black hole,

M. Rodin "The Dandelion Puff Principle: Point Energy Creation Physics", abstract for the 1993 Extraordinary Science Workshops, in <u>Aerodynamics: Point Energy Creation Physics</u> © 1997.



[As a brief tangent, my father is the one who invented the current way solar cells are made—fluidized bed technology. For this he received the 1989 NASA Exceptional Achievement Award and Medal. As a result I have some knowledge of photovoltaics.]

A solar cell is a semiconductor that converts light into electricity, normally used to make electricity from sunlight. If, for example, matter and antimatter collided to produce light at the center in the presence of a solar cell, the light could be used to generate electricity. Measuring a current in a dark room with a coil when a control without a coil showed none would be strong evidence that matter-antimatter annihilation was occurring and generating light. In any case, it would show that the Rodin-Ramsay coil could be used for the generation of electricity.

This is an elegant if not a novel approach to so-called "free energy" generation. Typically, most approaches toward overunity devices have incorporated an approach towards tapping the vacuum zero-point energy. Since virtual photon modes exist in the residual electromagnetic field of the vacuum, many researchers have attempted to tap this energy.

Others have approached the vacuum as Marko approaches it, a source of matter and antimatter, a plasma of virtual particles flitting into and out of existence—virtual particle flux as Tom (Bearden) calls it. Some, like Sweet, treat the vacuum as a sea of negative electron states, and input energy into Dirac's sea of negative electrons to lift a positron out of Dirac's negative sea of electrons. These positrons then act as the current of negative electricity for such devices as Moray's Radiant Energy Device and Sweet's Vacuum Triode Amplifier.

But no one that I know of has attempted to conceptualize an energy device by constructing a black hole and a white hole on the benchtop to accelerate matter and antimatter towards a point singularity according to the Hawking process. This approach is novel and consitutes a conceptually sound if not practical means of generating energy from the vacuum.

The problem has been that because the distribution of energy in the vacuum is generally isotropic and homogeneous, it is usually difficult to extract energy from the vacuum. The extraction of energy implies an energy differential and usually the energy is everwhere the same, which precludes using a change in energy to do work, i.e. drive a piston, or something like that.

Likewise, the approach of pulling virtual particles out of the vacuum is also fraught with the difficulty of transforming them into real particles that persist long enough to be usable and preventing them from annihilating themselves the moment they are "pulled" from the vacuum. A black hole/white hole construct solves that problem because it separates particle pairs created at the event horizons, transforms them into real particles (by energy exchange), and accelerates them towards the point singularity where they can be annihilated into light-energy.

This elegant process is what I think Marko calls "Point Energy Creation Physics" and I think is a novel contribution to the free energy field by the two us.

My opinion is that the testing of this process is fairly trivial—solar cells are cheap and the materials necessary to wind a blue coil are very inexpensive (-\$27 with tax). Bill Ramsay and I have talked, and he would be happy to wind a coil and replicate the experiment. We could use a solar cell as a detector, or if we wanted to get complicated we could use a very sensitive photomultiplier tube or photon counter to detect ultraweak photon currents (enclosed is information on the SR4000).

Particles and antiparticles are generally "detected" in particle physics using cloud chambers.

Remarkably, Ramsay used to make cloud chambers and says their construction is fairly trivial. It would be important to detect antiparticles like a positron using some established method if in fact a



OSCAR HSU TOROID AERODYNAMICS

July 22, 1998

Earl Bakken P.O. Box 384360 Waikoloa, HI 96738

Dear Sir:

On July 24, 1998, Marko Rodin and Scot Nelson will present to you the contents of a new book that Scot has written on Marko's work. One month ago, Marko asked me on Scot's behalf to co-author one or more chapters with him in order to add a physicist's point of view. I had the opportunity to see Scot's first draft a few months ago when he mailed Marko his first copy. I was impressed by his presentation and by his illustrations. So I have gladly agreed.

Marko has also asked me to serve as a Technical Writer and a Content Expert. My thoughts are that any presentation of Marko's ideas should be done with clarity, conciseness, and precision. As a scientist I tend to allow experiments to drive my inquiry into the theoretical nature of observed results. As a result I have found a fruitful partnership between Bill Ramsay and myself. Consequently, I believe that one of the best ways to preserve Marko's work is to publish scientific papers documenting benchtop results.

Scot and I have both decided that it is in all of our interests to take a six-month leave of absence to fulfil these goals—(1) finish the book (with one or two contributions from me), and (2) write up a few papers for publication provided hard evidence for the weight asymmetries are confirmed (they would be in the form of a data paper and a hypothesis paper).

The anticipated budget for those six months are: rent (\$438 x 6 mo. = \$2,630), utilities (\$50 x 6 = \$300), food (\$400 x 6 = \$2400), computer (\$1,657), printer (HP LaserJet 5M, \$1,787), scanner (HP ScanJet 6100C, \$921), backup drive (iomega zip 100 MB, \$99), xerox copier (\$950), fax/modem (\$200), salary for myself and two administrative assistants including one engineer (\$6,000 [\$1,000 x 6 mo.]). TOTAL \$16,944.

I expect to use some of that salary in travel expenses to Hawaii (I would like to spend some time with Marko and Scot). In addition, some of that salary will be used to defray the inevitable costs of phone/fax bills between myself and Marko and Scot. Miscellaneous costs include filing (I use 3-ring binders, dividers, and 3-ring binders). Finally, I would like to pay \$10/hr. to Doug Orringer and Jim Girard for services rendered in gophering, journal and reference xeroxing, and technical assistance.

Your consideration of this matter is duly appreciated.

Sincerely

Oscar K.H. Hsu

Technical Writer/Content Expert



and spacecraft—fluidized bed technology, a way of chemical vapor deposition (CVD) in a reactor that enables silicon to be made extremely pure, something like 99.99999 % pure or more. These wafers are then made into solar cells which power satellites, spacecraft, even Voyagers 1 and 2. For this they (JPL) gave him a medal; it was some kind of big deal...I don't remember the name but it was something like the JPL Achievement Medal and it was special to dad—kind of the high point in his life, I think. But they went and let him go after he got his disease...I didn't realize it at that time; I was too young, probably, but that was one lesson that I could have learned had I thought about it. In life there is no loyalty, and nothing's fair.

So I grew up in a family of engineers—Dad, mom. I wanted to be an engineer too...I competed in JPL's Space Station Design Competition in high school and thought it was so cool to design space stations, living environments. I wanted to be an aerospace engineer when I grew up, designing aircraft...but I must have changed my mind two or three times because I distinctly remember wanting to be a chemical engineer after I saw you could drown a mouse in superoxygenated blue fluid and he could breathe underwater with it. Later, they used that material in the movie "The Abyss" for one of their deep sea diving suits (I still remember). Besides that, I'm not sure what else I wanted to be but it was definitely in science.

That's not to say science was my best subject. I was just as good in English and Math, if not better, but I realize now how much of who I am was determined by growing up and watching my parents. I inherited my father and my mother's moralities and their culture almost by osmosis, subconsciously. I wish I could pick and choose, but life doesn't give you that choice until you become aware of the fact that your parents are affecting you in many ways.

What I was back then was an idealist; I wanted to cure cancer and AIDS, partly because it's thought that you've got to be incredibly smart to cure these diseases and because they were the "incurables" waiting to be cured...it was considered the pinnacle of science. I knew or thought that I could do it and I didn't want anyone to cure them before me, because I wanted to do it and be the first one. I remember my mom cut out a piece of the Chinese newspaper that said one man in Taiwan had cured AIDS and I remember being so disappointed and telling my biology teacher who consoled me saying I could still cure cancer and even AIDS 'cause nobody balks at multiple cures.

In high school I went and replicated Becker's work on dedifferentiation, which I thought was particularly fascinating. Dedifferentiation was the basis of his theory of regeneration. If you could apply physiological doses of DC current, you could make a blastema, the basis of regeneration, from previously differentiated cells. It was a whole new idea and it was pretty dramatic—cells reverting to an undifferentiated state and changing into a whole new cell line. I thought, why not?

So I did some work on sea urchin embryos and came up with some results that looked OK. Using different currents I got results that looked like you could stop cells from dividing, slow them down, speed them up, make them revert to a single cell state or go backwards. I could even contracept cells electrically. I did two years of work on this and in the end, won the Southern California Junior Academy of Sciences Best High School Student Research Award. I've never been able to replicate this work with good video microscopy even though I've always really wanted to. It is really cheap and really easy and I hope someday somebody will agree and help me to. After that, I thought I would make a really good scientist.

At the end of high school, I went to work at JPL briefly for NASA as a member of the Galileo Magnetic Fields and Particles Team. It was kinda neat, I remember getting the office that was reserved for Van Allen, the guy who discovered the Van Allen Belts, but who was kinda old and was emeritus anyway. Since he never came to JPL, they gave his office to me—I had my own secretary, everything. You must imagine, it was kind of a real trip for me, because I was young—a high school



So I really wanted to make my mark in science and I told myself, very seriously at the time, that I was going to be a bioelectromagnetic researcher and pioneer the field of Bioelectricity and Bioelectromagnetism. That's what I told myself before I went to Harvard. I wanted very much to go into that field and I tried to tailor my classes and my major to fit that. The closest thing I could come up with that was still relatively easy was Neurobiology and I ended up specializing in that under Biology at Harvard. I thought to myself that Neurobio had to have some some biophysics, which was a lie—a lie I told myself and rationalized so that I wouldn't challenge myself and went into it.

I ended up doing very well in it, becoming one of the top two students in the department, if you believe Barbara Cerva, the lady in charge of the department and had some of the best years of my life at that college. I still cared a heck of a lot about bioelectromagnetism and ended up working for the Physics Department one year, for Richard Wilson and a grad student of his. Seemed like Battele or EPI (the Electric Power Institute) wanted Harvard to do a physics assessment of the 60-Hz electric power line controversy and determine if there was a plausible mechanism for biological effects to occur because of transmission lines.

The whole idea of electric power lines causing cancer was not taken very seriously by the Physics people around the world. Adair kept saying biological effects kept happening at electromagnetic field levels that were below the background of thermal noise, so how could you find a signal different from the noise that could do anything? Wilson's grad student told me he'd believe it was possible if after a literature search and database compilation, the data would show a window effect, some dosimetric threshold where biological effects were clustered above and a cutoff. So I collected data, rather half-heartedly.

Really, at the time my whole imagination was captured by Tom Bearden, the father of scalar wave electromagnetics. I had just read "AIDS: Biological Warfare" and it was like my second "Body Electric" book to me—it had a similar effect as Becker's book. I wanted to learn everything I could about scalar wave electromagnetics and I thought Tom was just about the greatest scientist in the whole world. I mustered as much courage as I could and I wrote to him, offering my small services in whatever capacity. Strangely, I got a call on my answering machine not much later, saying that he would "work" with me if I wanted to and offered me a co-authorship on a paper he was working on—a systems analysis of what was wrong with standard electromagnetic theory regarding biological effects. I was stunned and pleased beyond belief. One of my heroes was offering to work with me; of course, I took him up on that offer and that started a long history of correspondence back and forth between him and I that has remarkably, continued to this present day. I never did write a paper with him because I was too busy (what with college and all), but you can still see Tom quoting me in a paper you can download off the KeelyNet. When I saw that quote on paper recently, I just laughed and laughed and laughed. It tickled me pink—I had really arrived. That was the stamp of approval that meant I was a good scientist—Tom Bearden quoting me.

I had speculated that DNA had an infolded scalar wave structure—it had to, there were just too many similarities...two antiparallel helixes wound together...it reminded me of Tom's zero-sum vectors that pair to form scalar waves. My intuition told me that the phosphate backbones were like carrier waves and that the nucleotides were the real information content, modulating the carrier waves with an "infolded" longitudinal scalar wave structure. I thought maybe the hydrogen bonds holding the nucleotides together had dipoles that zero-summed in some way.

I went to Harvard's Biology Library, the one with the metal rhinos out front, and I looked up in some books the dipole structure of DNA. Sure enough for one of the base pairs, the dipoles zero-summed. Revelation! I phoned Tom and told him what I was thinking and what I found. He wanted me to rush those results right away because he had been speculating along very similar lines without telling anyone and his hunches was something like that had to be but he could never get his hands on



Tom had backed up his assertions with his treatment of the Antoine Priore work. He showed that this French Researcher backed by Robert Courier, Secretary Perpetual of the French Academy of Sciences had cured leukemia and other such diseases using electromagnetic waves passed through a rotating plasma and a strong static magnetic field. His carrier wave was a radio wave and it was modulated by whatever phase conjugates were generated while passing through the plasma. The dense signal then rode into the body, possibly effecting cures by the mechanism discussed above. In any case it was communicating with the body somehow.

Since then I've come across intelligence information presented by Major Corso who was head of the Foreign Technology Desk at the Pentagon for Army R&D. Corso said that the Army funded and knew of work in Italy by scientists showing that electromagnetic fields generated by the brain were more important for healing than anything else. He said the military knows of work that shows that cancer can be cured electromagnetically and that the application of electromagnetics to health and healing can and does produce amazing effects. My guess is the reason it hasn't been made public is that it is a double-edged sword; the military doesn't want other governments acquiring the capability of inducing disease electromagnetically. So presumably the reason is national security.

I've always wanted to do fundamental research on these things because Tom and I think that Becker's work may involve the bidirectional waves that are the trademark of scalar wave effects. When I did the work on sea urchin embryos I didn't think scalar at the time and it may not be scalar, but there is a thought-provoking possibility. Hsue showed that a DC voltage on a lossless transmission line is equivalent to two bidirectional waves—which must be counterpropagating, I think. Thus a small DC voltage would be like the counterpropagating waves that Tom thinks is the structure of a scalar wave—a way of stressing spacetime. So maybe, the thinking would go, that the small DC voltages were time-reversing the embryos back into earlier states. If so, it would be a method of making cells younger, so to speak, so I think the research has interesting implications.

So when I worked for Harvard's Physics Department on the electric power line controversy, I contended that the problem wasn't in the fields it was in the potentials. See, Tom had argued that when you have no gradient in a scalar potential, you can have no force field but still the scalar potential. Since physicists argue that the forces are so small nothing can be happening, I said, maybe forces aren't the issue. Tom said, small forces mean a small gradient, so the underlying potential must be largely gradient-free, i.e. it's not changing; it's static and stable, the same everywhere. Maybe the potential then is having an effect. He used the Aharonov-Bohm effect as an example. The curl-free vector magnetic potential, a vector potential can cause displacement of interference fringes in regions of zero magnetic force fields. Perhaps, he argued scalar potentials, can also have such a physical effect. If so, then the scalar potentials would be the culprit not the force field, which is a red herring. It was an appealing idea, one I tried to communicate.

However, physics is largely force-field focused, at least with regards to the power-line controversy so I didn't win. I don't think I did the best job communicating either, but the whole issue has stayed with me, at least in my subconscious. I think one day I will write a paper with Tom as he originally wanted, but this time we'll write one primarily on physics (my interest now), not a systems analysis (which is Tom's specialty).

Of course you can't major in scalar wave electromagnetics, so I worked on biological rhythyms as my day job. I did my senior thesis on a 3-dimensional reconstruction of the neuronal afferent input to a long-term REM sleep activation site in the cat brain. You see, when you dream, you are in a stage of sleep called REM sleep. My thesis advisor found a place in the cat brain where if you give it some acetylcholine, the cat will go into multiple episodes of REM sleep for a long time. So he called it a long-term REM sleep activation site. He wanted to know what other parts of the brain connected to this site so that was my job.



OSCAR HSU TOROID AERODYNAMICS

July 23, 1998

Earl Bakken P.O. Box 384360 Waikoloa, HI 96738

Dear Sir:

On July 24, 1998, Marko Rodin will present to you a paper I have written on a general relativistic description of his Toroid Map as the spatial curvature of a single Euclidean spacetime induced into a rotating black hole/white hole pair. The paper is called "The Toroid Map as an Einstein-Rosen Bridge" and it is written with the standpoint of general relativity (GR) in mind. General relativity as you know, is Einstein's geometrical theory of gravitation in which the apparent force of gravity results purely from the motion of objects along the geodesics (the line connecting two points with a minimum distance) of a curved spacetime. Einstein's spacetime metric (the distance between coordinate points) is a useful description of Marko's quantum astrophysical tiles that expand and contract similar to the way Einstein's spacetime metric expands and contracts in response to spacetime curvature. By solving Einstein's ten nonlinear hyperbolic partial differential equations, one can find exact solution's to Einstein's field equations that precisely describe the spacetime metric's curvature and hence the acceleration of objects toward one another.

An Einstein-Rosen bridge is effectively a wormhole between two separate but parallel universes, however Marko's Toroid Map is more of a classical wormhole as described by Wheeler, of the sort that connects two portions of the same Euclidean space locally. Other versions of a wormhole connect distant areas of the Universe, as depicted in "Contact" or "Deep Space 9."

Marko's Toroid Map describes two counter-rotating black and white holes which flow into one another. The Einstein-Rosen Bridge is the central "throat" of the wormhole. The tighter this "throat" the more the center of this wormhole approximates a point singularity.

Stephen Hawking, who has worked on black hole theory for much of his famous career, described in 1975 a process by which black holes could transform virtual particles arising from the vacuum into real particles. This paper was called "Particle creation by black holes" and it appeared in the journal Communications of Mathematical Physics, volume 43, pages 199-220. In it Hawking described what is now known as the Hawking Process, the process in which virtual particle pair creation at the event horizon of a black hole can be transformed into a real pair by an exchange of energy whereby the virtual particle has just enough time to cross the event horizon and traverse the distance to the center of the black hole. Its antiparticle counterpart moves in the opposite direction, flying off some distance towards infinity.

By symmetry, a white hole should have the opposite effect: the spontaneous creation of a virtual particle pair at the event horizon of a white hole, driven by quantum vacuum matter fluctuations, should lead to the separation of the particle pair in a reverse manner. The antiparticle should have just enough time to cross the event horizon of the white hole and reach its center, while the particle counterpart should fly off in the opposite direction into the distance.

When the two particles meet at the center of the point singularity, they should collide and annihilate, forming two photons of high energy. This is called particle pair destruction and is the reverse of particle pair creation. The annihilation of matter-antimatter pairs leads to the production of high energy photons. It is this

Sincerely yours,

Oscar K.H. Hsu

Theoretical Physicist



MASS ASYMMETRIES OF TWO RODIN-RAMSAY COILS

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ABSTRACT

One of the most puzzling aspects of quantum electrodynamics (QED) is the existence of random fluctuations of the electromagnetic field even in the lowest thermal state of the vacuum. These fluctuations constitute a zero-point field with an energy, $E = \hbar\omega/2$, for each mode of frequency ω , and a spectrum proportional to $\hbar\omega^3$. Modern physical theory tells us that the vacuum can no longer be considered a void but rather a quantum state with fluctuations where the so-called zero-point energy accounts for significant physical effects. Some of these are by now well established, such as the Casimir effect (explained below), spontaneous emission of photons, the Lamb shift (the fine structure in atomic spectra) and the Van der Waals forces (dipole-dipole interactions in weak chemical bonds).

The Casimir force is an experimentally-verified zero-point field-induced attractive force between closely-spaced metal plates. An analysis of the Casimir effect shows that the Casimir force arises solely from the geometry of the plates; the plates produce a resonant cavity, allowing the local vacuum within the plates to be asymmetrically isolated from the global vacuum outside the plates. This deformation of the zero-point energy spectrum leads to an unbalanced zero-point pressure that pushes the plates together.

A variation on the Casimir force may be operative in the Rodin coil. The results presented here show that the quantum fluctuations of the electromagnetic vacuum state can be detected with a Rodin coil. The Rodin coil couples to the vacuum fluctuations in such a manner as to produce observable effects—namely weight asymmetries. Weight asymmetries in two coils built by Bill Ramsay showed a weight differential between a single coil. Each coil acted as its own control, in that the orientation of a coil weighed 8% more in one orientation relative to its inverted orientation.

SUMMARY

These puzzling results are reminiscent of gravitational shielding reported by Eugene Podkletnov and others, whose reports of 2% weight decreases of objects in the vicinity of a superconductive toroidal coil have led to NASA's current efforts to replicate those results.

The theoretical basis for such results seems to lie within the work of Bernhard Haisch, Alfonso Rueda, Hal Puthoff, Patrick Cornille, Tom Bearden and E.T. Whittaker, whose combined corpus seems to suggest that gravitation can be modified electromagnetically.

The current atmosphere of interest in mass modification in the aerospace and physics communities has led to the creation of such new institutional endeavours as the NASA Breakthrough Propulsion Physics Program (established in 1996) and the FY-1986 Defense SBIR Program of the US Air Force. The Air Force Rocket Propulsion Laboratory (AFRPL) and NASA are requesting proposals for "bold, new, and unconventional propulsion concepts."

In 1988, M. Rodin presented a paper on "low-cost propulsion based upon the re-evaluation of the physics of matter" at the 7th session on Power and Propulsion at the Air/Space America Symposium '88. Chairman James Martin, editor of Defense Science magazine, selected his research work as being the most revolutionary propulsion system ever created.

Since then, Bill Ramsay and Oscar Hsu have conducted an electrical engineering and theoretical physics analysis of Rodin's concepts respectively, which is presented in this proposal. My proposal is that the results of Bill Ramsay be experimentally verified and documented definitively.



of the Advanced Space Transportation Plan (ASTP) managed by Marshall Space Flight Center (MSFC). The Program's goals are:

- (1) MASS: Discover new propulsion methods that eliminate or dramatically reduce the need for propellant. Implies discovering fundamentally new ways to create motion, presumably by manipulating gravity or inertia or by manipulating any other interactions between matter and spacetime.
- (2) SPEED: Discover how to attain the ultimate achievable transit speeds to dramatically reduce travel times. This implies discovering a means to move a vehicle at or near the actual maximum speed limit for motion through space or through the modification of spacetime itself.
- (3) ENERGY: Discover fundamentally new on-board energy production methods to power propulsion devices. This third goal is included in the program since the first two goals could require breakthroughs in energy generation to power them and since the physics underlying the propulsion goals is closely linked to energy physics.

The Program will fund tasks for a relatively short duration (1-3 yrs) at modest cost (\$50-\$150K). So far NASA awarded a \$70,000 grant to the company Superconductive Components to duplicate and someday enlarge superconducting disks modeled after a Russian scientist's design after he reported a 2% reduction in the force of gravity using a toroidal disk." Podkletnov reported that "a high-temperature YBa2Cu3O7-x bulk ceramic superconductor with composite structure revealed weak shielding properties against gravitational force while in a levitating state at temperatures below 70K. A toroidal disk with an outer diameter of 275 mm and a thickness of 10 mm was prepared using conventional ceramic technology in combination with melt-texture growth. Two solenoids were placed around the disk in order to initiate the current inside it and to rotate the disk about its central axis. Samples placed over the disk initially demonstrated a weight loss of 0.3-0.5%. When the rotation speed was slowly reduced by changing the current in the solenoids, the shielding effect became considerably higher and reached 1.9-2.1% maximum."

NASA took the results so seriously that a collaborative effort between NASA's Marshall Space Flight Center and the University of Huntsville, Alabama, led to a static test of Podkletnov's experiment: a single-phase, dense bulk superconducting ceramic of YBa2Cu3O7-x was held at temperatures below 60K, levitated over a toroidal solenoid, and induced into rotation using coils with rotating magnetic fields. Without superconductor rotation, a weight loss of 0.05% was reported." Apparently, NASA thought the results were significant since on March 26, 1997, the joint (NASA) MSFC-UAH team led by Ning Li produced the largest high temperature superconducting disk ever manufactured in the US. The disk measures 12" in diameter and is ½" thick. The largest ceramic disks that Superconductive Components has made for NASA thus far (May 8, 1988) are 6" in diameter, half the size of Ning Li's disk. James Gaines, vice president and general manager, said if Superconductive can duplicate Podkletnov's disk, it could lead to a second NASA award of about \$750,000.

Apparently NASA is serious about this task; on May 4, 1998 NASA was interested enough to bring Podkletnov to NASA's Marshall Space Flight Center and to Superconductive Components to see whether his work can be duplicated. Despite many attempts, NASA's MSFC has had no success in replicating the experiment.

Millis, M.G. "Breakthrough Propulsion Physics Workshop Preliminary Results" in Space Technology and Applications International Forum, AIP Conference Proceedings 420, pp. 3-12 (Plenary Session III 'Views of Future'), Albuquerque NM (Jan 1998), and as NASA TM-97-206241 (Nov 1997).
Podkletnov, E. and Nieminen, R. (1992) Physicsa C 203:441.

Podkletnov, E. (1995) "Weak gravitational shielding properties of composite bulk YBa2Cu3O7-x superconductor below 70K under electromagnetic field", report MSU-chem 95, improved version (cond-mat/9701074).



inertial moment are combined in an atom, it may be possible to use this property to convert time-varying electromagnetic fields into time-varying gravitational fields." In essence, Forward proposed using magnetic fields to accelerate atoms, thus using electromagnetic energy to change the atoms' inertial state, and by the principle of equivalency, changing their gravitational state.

RESULTS: THE RODIN EFFECT

That mass can be electromagnetically modified appears to be a possibility, given the recent empirical observations of Bill Ramsay¹⁵ in 1995, who observed several toroid coils modeled after Rodin's design¹⁶ displaying weight asymmetries. In the Rodin design, two equal coils are wound in the same direction of rotation (CW or CCW) with each wrap (see fig. 1); there are 12 wraps per turn passing through the center to connect with its 150° separated neighbors. This results in 12 wraps with as many crossover wires for each of the two equal turns. The two equal windings are shifted 10° from each other¹⁷:

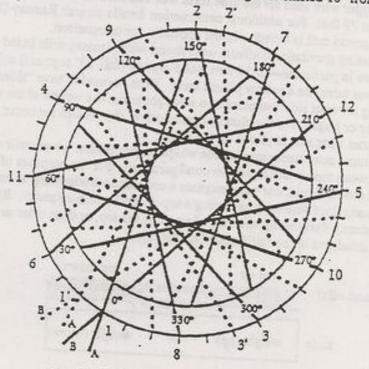


Fig. 1 Winding Method Used forRamsay Coils

The approximate dimensions of two different sized and colored forms are listed in Table 1:

Graphic Representations:

A

B

C

D

Color of Torus	Outer Diameter A	/ 5:		
Blue		Inner Diameter B	Circumference C	Cross Diameter D
	4.8 inches	2.25 inches	3.9 inches	
Yellow	4.13 inches			1.1 inches
		1.8 inches	3.6 inches	1.06 inches

Table 1. Approximate Dimensions of Ramsay Coils in Inches

<u>Legend</u>: A = outer diameter of torus, B = inner diameter of torus, C = crosssectional circumference of torus, and D = cross-sectional diameter of torus.



configuration (see fig. 2 above). The latter result is preferable for propulsion, since Podkletnov's results are presumably limited to the near-field range next to the disk. Ramsay's results appear to be intrinsic to the geometry of the coil itself.

Podkletnov is reported his 2% weight decreases as "gravitational shielding." If the weight asymmetries of Ramsay's coils represent a true vacuum-based alteration of coil gravitational mass and it could be duplicated and documented, then the phenomenon might be promoted to the coveted status of an "effect" and the "Rodin effect" might be studied by NASA, just as NASA is attempting to replicate Podkletnov's gravitational shielding.

DISCUSSION: MY THEORY

In spite of the success of special and general relativity, which embody our best understanding of the relationship between mass and energy, the fundamental nature of mass has remained a complete mystery. There are four characteristics of matter that involve some aspect of the property of mass. (1) Inertial mass: the resistance to acceleration known as inertia. (2) Active gravitational mass: the ability of matter to attract other matter via Newtonian gravitation, or, from the perspective of general relativity, the ability to curve spacetime. (3) Passive gravitational mass: the propensity of matter to respond to gravitational forces. (4) Relativistic or rest mass: the relationship of mass and energy expressed in the $E=mc^2$ relation of special relativity. These are very different properties of matter, yet for some reason they are quantitatively represented by the same parameter. Another fundamental characteristic of mass is that objects that possess mass (i.e. matter) are limited to speeds less than the speed of light c, whereas massless entities such as photons cannot move at any speed other than c.

With regard to gravitational attraction that is described so well by Einstein's theory, its fundamental nature is still not well understood. Whether addressed simply in terms of Newton's Law,

$$F_{g} = \frac{GMm}{R^{2}} = mg \tag{0.7}$$

where G = Newton's gravitational constant, M = the mass of the earth, m = mass of object, and R = radius of the earth, or with the full rigor of general relativity, gravitational theory is basically descriptive in nature, without revealing the underlying dynamics for that description. As a result, attempts to unify gravity with the other forces or to develop a quantum theory of gravity have foundered again and again on difficulties that can be traced back to a lack of understanding at a fundamental level. 18

Taking a completely novel approach in the sixties, the well-known Russian physicist Andrei Sakharov put forward the somewhat radical hypothesis that gravitation might not be a fundamental interaction at all, but rather a secondary or residual effect associated with other non-gravitational fields. Specifically, Sakharov suggested that gravity might be an induced effect brought about by changes in the zero-point energy of the vacuum, due to the presence of matter. If correct, then gravity would be understood as a variation on the Casimir theme, in which background zero-point radiation pressures are again responsible. Although Sakharov did not develop the concept much further, he did outline certain criteria such a theory would have to meet, such as predicting the value of the gravitational constant G in terms of zero-point energy parameters.

The first step in developing Sakharov's conjecture in any detail within the classical context of nonrelativistic stochastic electrodynamics (SED) was the work of Puthoff (1989). Here the electric component of the zero-point field causes a charged particle (an electron, for example) to oscillate. Such time-varying oscillations give rise to secondary electromagnetic fields: $E = \nabla \phi - \partial A/\partial t$ and $B = \nabla \times A$ by Maxwell's Equations. Mathematically, these equations state that the electric force field is equal to the gradient of the electric scalar potential minus the time rate of change of the magnetic vector potential, and the magnetic force field is equal to the curl of the magnetic vector potential. This means a time-varying zero-point field will give rise to a time-varying electric field, which will give rise to a time-varying electric field, etc. An adjacent charged particle will thus experience both the zero-point field causing it to oscillate, and secondary forces due to the secondary E and B fields produced by the zero-point field-driven oscillations of the first charged particle. Similarly, the zero-point field-driven oscillations of the second particle will cause their own secondary fields which act upon the first particle. The consequence is that between two charged particles there will be a standing wave composed of two progressive waves equal to one another but opposite in direction.



Hence, the acceleration of two charged particles by the zero-point field leads to the radiation of electromagnetic waves from both of them through the vacuum. Their sum satisfies the standing wave condition and gives rise to the gravitational force. Puthoff (1989) agrees with this. He expresses the net effect of the secondary EM fields mutually acting upon the charged particles as an attractive force. The Puthoff analysis consists of two separate parts. In the first, the energy of the zero-point field-driven oscillating motion is equated to gravitational mass, m_g (after dividing by c^2 : $E_g/c^2 = m_g$). This leads to a relationship between mz and electrodynamic parameters that is identical to the HRP2 inertial mass, mi, apart from a factor of two. If one modifies $E = mc^2$ by the Newman condition, where $E = KE + E_{rot} =$ $\frac{1}{2}m_{g}c^{2} + I\omega^{2}$, where $I = \text{inertial moment and } \omega = \text{angular velocity for an electron, then } I = \frac{1}{2}m_{H}r^{2}$ and $\omega = \frac{1}{2}m_{H}r^{2}$ c^2/r^2 (MacGregor, 1992). Then $I\omega^2 = \frac{1}{2}m_i r^2$) $(c^2/r^2) = \frac{1}{2}m_i c^2$. In that case, $m_z = m_i$ which agrees with the appendix of HRP³¹ in which the Puthoff m_g is reduced by a factor of two, yielding $m_g = m_i$ precisely.

The second part of Puthoff's analysis is more controversial. He quantitatively examines the force interactions between two driven oscillating dipoles and derives an inverse square force of attraction. This derivation is fits the physical content of Whittaker's mathematical analysis. Puthoff suggests that the interparticle coupling due to the secondary fields generated by the other particles is what results in the

Whittaker's analysis suggests something very deep-the possibility of assembling a electromagnetic force potential from two gravitational scalar potential functions using two multifrequency transmitter arrays that transmit two harmonic series of wavepairs where each wavepair consists of a normal EM wave and its reflection,26 i.e. it suggests that gravity and electromagnetism are unified. Stated another way, one can assemble an EM force potential from two gravitational scalar potential functions by interferometry-each gravitational scalar potential function being a scalar standing wave composed of a harmonic series of simple bidirectional propagating planar waves.

For example, each of the arrays could transmit one of the scalar standing waves that together comprise a magnetic vector potential A. Now B = V x A. This is equivalent to Cornille's proof that scalar standing waves are the source of the electromagnetic field and that one can deduce Maxwell's equations by using successively more complicated potential definitions. He noted that it is interesting to note that if a sum of two progressive waves gives a standing wave, conversely a sum of two standing waves can define a progressive wave as follows:

$$cos(\omega t) cos (kz) + sin(\omega t) sin(kz) = cos (\omega t - kz)$$
 (0.90)

Consequently in a Fourier integral built with standing waves, one can expect in some cases to obtain a progressive wave solution. Cornille thus succeeded to derive a system of equations which couple Maxwell and potential equations and to obtain the Lorentz force laws by assuming the existence of scalar waves with an angular frequency and a wave-vector which depends on space and time in the vacuum.

In the past, Debye25 introduced a solution of Maxwell's equations also in terms of two other scalar potentials, as well as Nisbet.26 From the mathematical analysis of Whittaker,27 it appears that the gravitational scalar potential is a standing scalar wave composed of one propagating wave and its reflection. An electromagnetic wave satisfies the condition of a simple planar propagating wave.

Thus if Bearden 26 is right, then one can assemble a gravitational potential by stacking harmonic series of bidirectional electromagnetic wave pairs—a wave and its reflection—and also assemble electromagnetic potentials by interfering two different sets of bidirectional harmonic EM wavepairs. If this is true, then gravity can be modified electromagnetically.

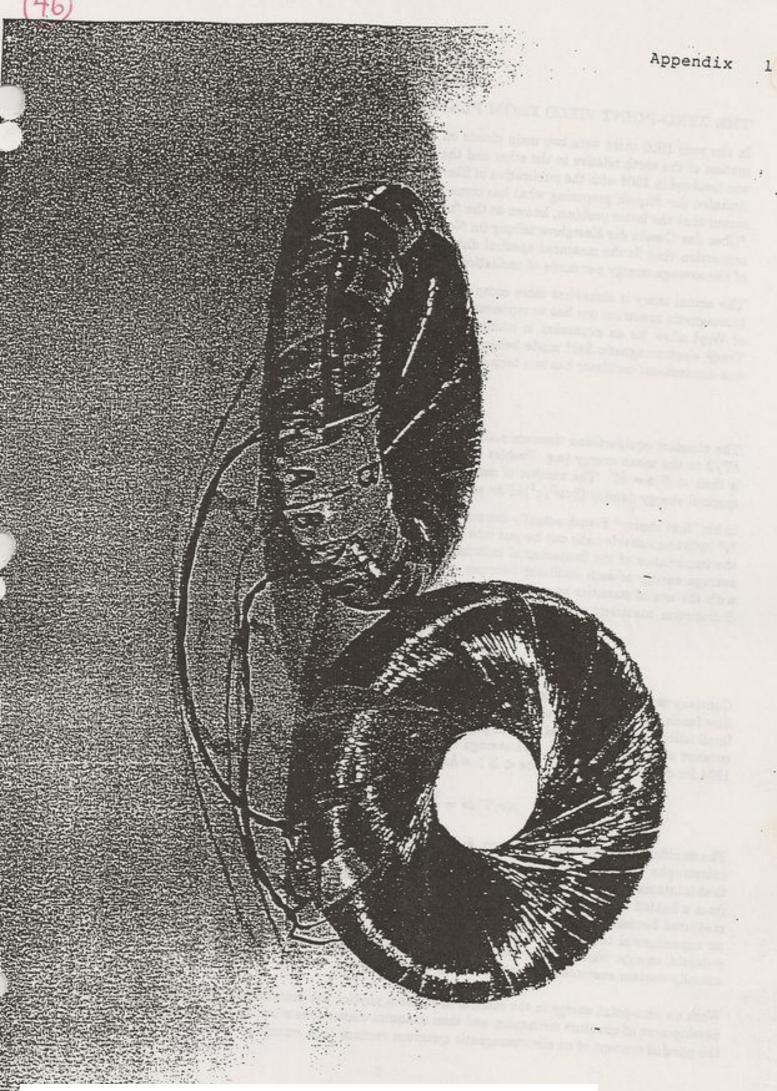
Decreasing Mass Means More Payload

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. Officials in the space business are always interested in exotic new schemes for mass modification because saving on weight means less fuel needed and more payload space

(44)

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THE ZERO-POINT FIELD FROM QUANTUM PHYSICS:

For a one-dimensional harmonic oscillator of unit mass the quantum-mechanical Hamiltonian analagous to Eq. (1) may be written (cf. Loudon 1983)

$$\hat{H} = \frac{1}{2}(\hat{p}^2 + \omega^2 \hat{q}^2),\tag{3}$$

where \hat{p} and \hat{q} are momentum and position operators respectively. Linear combination of the \hat{p} and \hat{q} result in the ladder operators, also known as destruction (or lowering) and creation (or raising) operators respectively:

$$\hat{a} = (2\hbar\omega)^{-1/2}(\omega\hat{q} + i\hat{p}), \qquad (4a)$$

$$\hat{a}^{\dagger} = (2\hbar\omega)^{-1/2}(\omega\hat{q} - i\hat{p}). \tag{4b}$$

The application of the destruction operator on the nth eigenstate of a quantum oscillator results in a lowering of the state, and similarly the creation operator results in a raising of the state:

$$\hat{a}|n\rangle = n^{1/2}|n-1\rangle,$$
 (5a)

$$\hat{a}^{\dagger}|n\rangle = (n+1)^{1/2}|n+1\rangle,$$
 (5b)

It can be seen that the number operator has the $|n\rangle$ states as its eigenstates as

$$\hat{N}|n\rangle = \hat{a}^{\dagger}\hat{a}|n\rangle = n|n\rangle.$$
 (5c)

The Hamiltonian or energy operator of Eq. (3) becomes

$$\hat{H} = \hbar\omega \left(\hat{N} + \frac{1}{2}\right) = \hbar\omega \left(\hat{a}^{\dagger}\hat{a} + \frac{1}{2}\right).$$
 (6)

The ground state energy of the quantum oscillator, $|0\rangle$, is greater than zero, and indeed has the energy $\frac{1}{2}\hbar\omega$,

$$\hat{H}|0\rangle = E_0|0\rangle = \frac{1}{2}\hbar\omega|0\rangle,$$
 (7)

and thus for excited states

$$E_n = \left(n + \frac{1}{2}\right)\hbar\omega. \tag{8}$$

Now let us turn to the case of classical electromagnetic waves. Plane electromagnetic waves propagating in a direction k may be written in terms of a vector potential A_k as

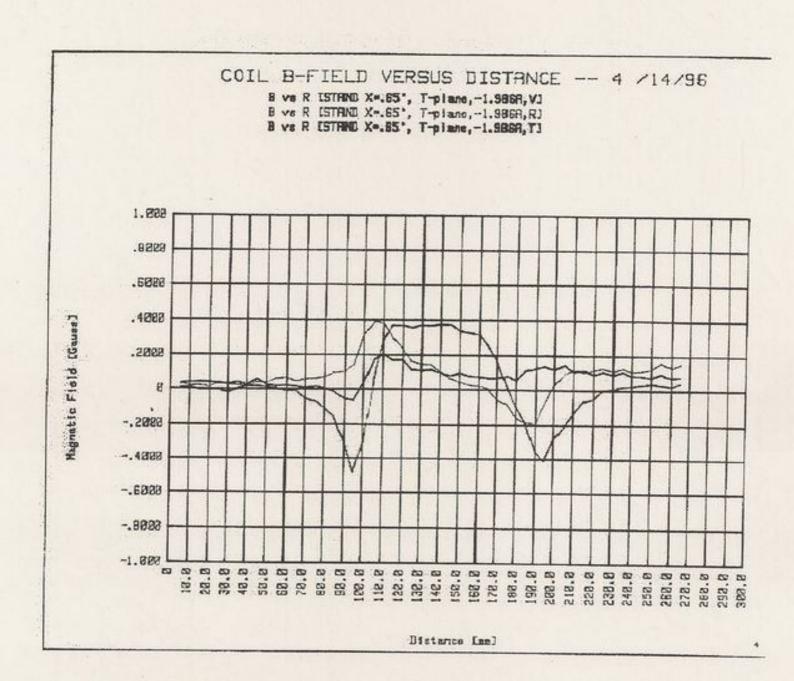
$$E_k = i\omega_k \{A_k \exp(-i\omega_k t + i\mathbf{k} \cdot \mathbf{r}) - A_k^* \exp(i\omega_k t - i\mathbf{k} \cdot \mathbf{r})\},$$
 (9a)

$$B_k = ik \times \{A_k \exp(-i\omega_k t + ik \cdot r) - A_k^* \exp(i\omega_k t - ik \cdot r)\},$$
 (9b)

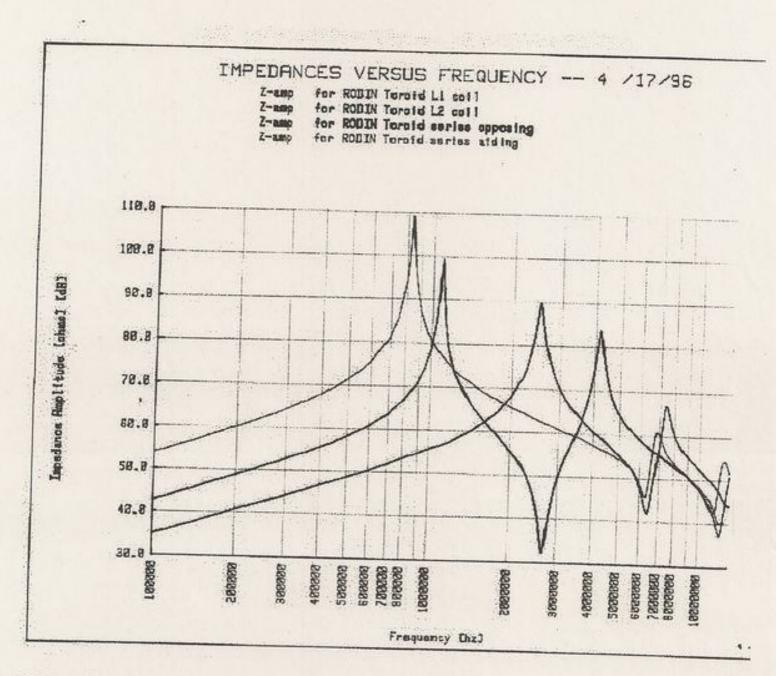
Using generalized mode coordinates analogous to momentum (P_k) and position (Q_k) in the manner of Eqs. (4ab) above one can write A_k and A_k^* as

$$A_k = (4\epsilon_0 V \omega_k^2)^{-\frac{1}{2}} (\omega_k Q_k + i P_k) \hat{\epsilon}_k,$$
 (10a)

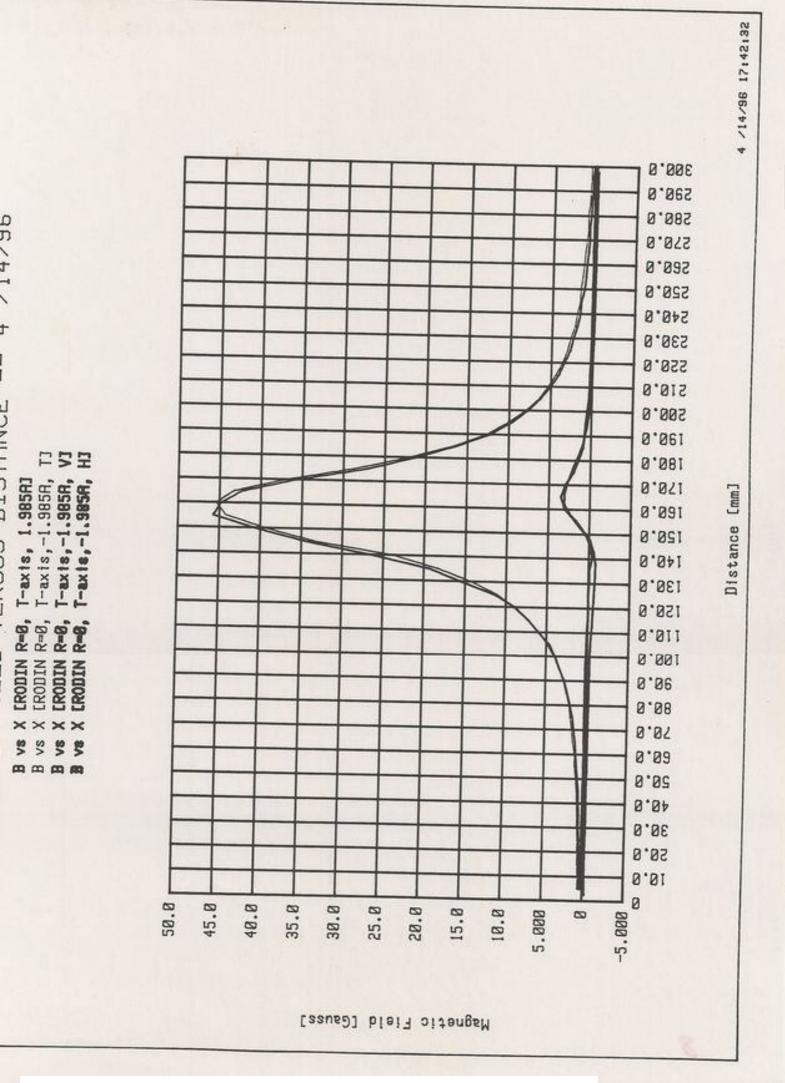
$$A_{k}^{*} = (4\epsilon_{0}V\omega_{k}^{2})^{-\frac{1}{2}}(\omega_{k}Q_{k} - iP_{k})\hat{\epsilon}_{k},$$
 (10b)

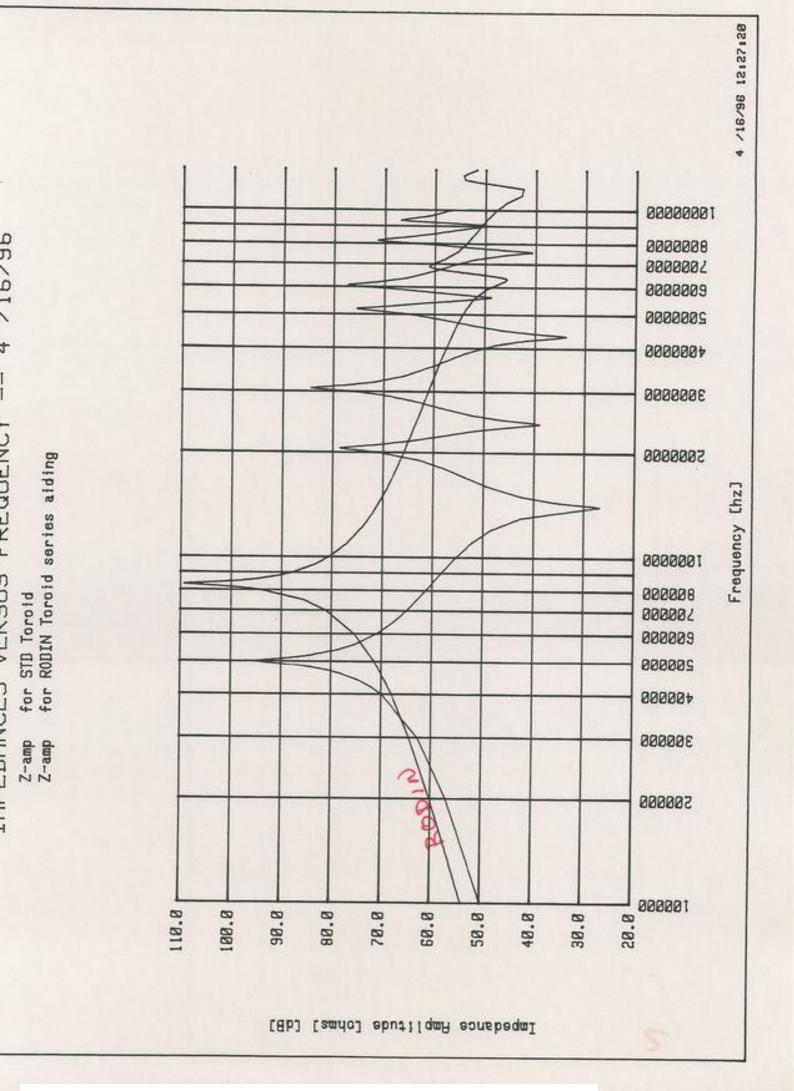


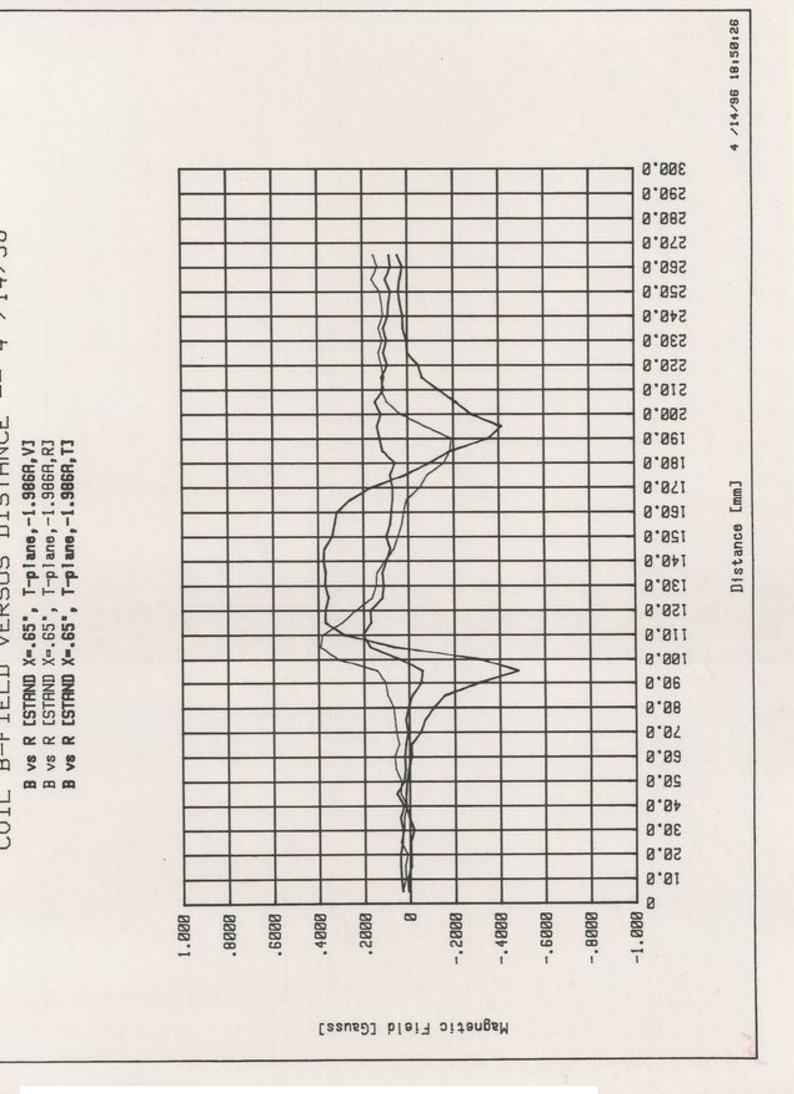
Graph Five - Graph of the total B-field for a line parallel to the toroidal plane, but 0.65" from the center of the toroid for the standard toroid. It is esthetically obvious that the Rodin coil in graph eight is coherently superior over the very jagged and discombobulated conventional coil in graph five.

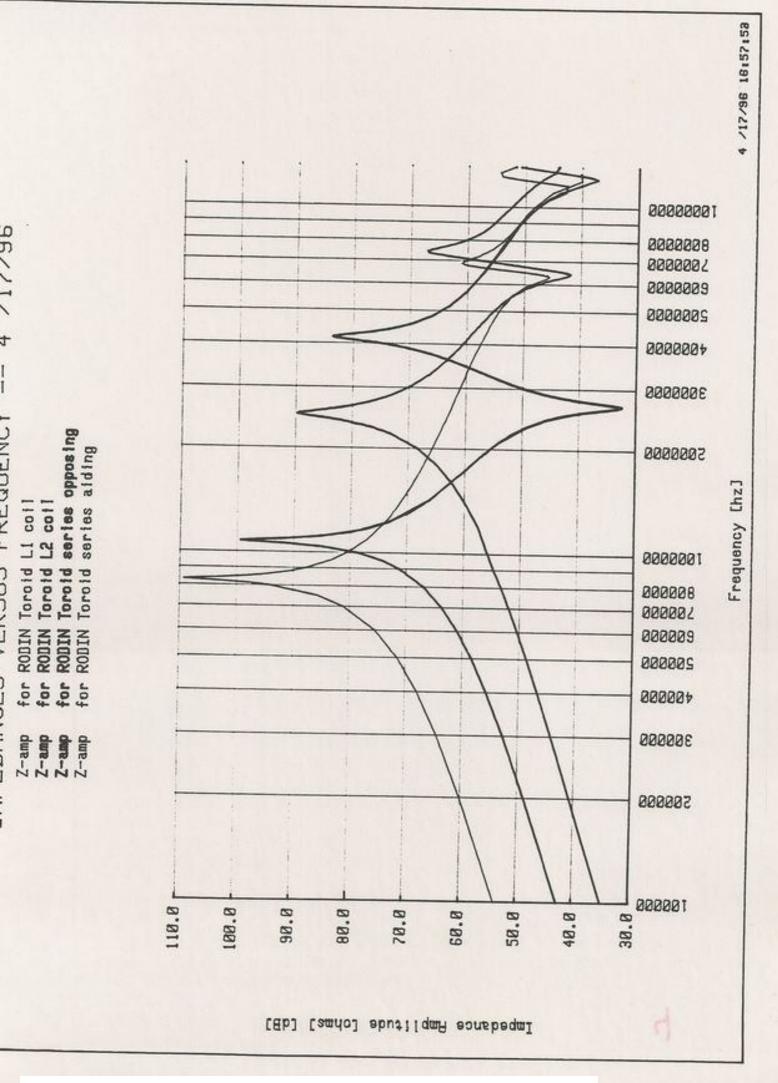


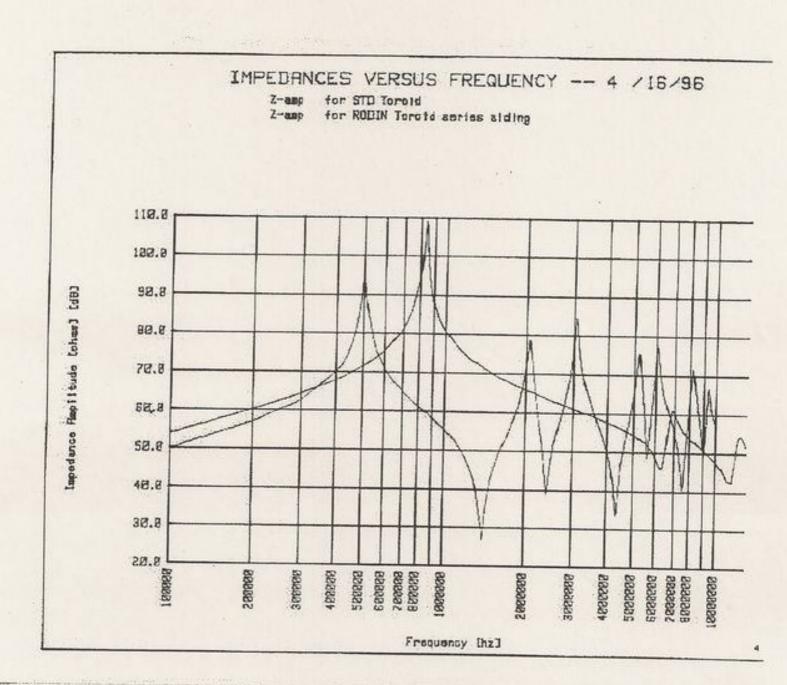
Graph Eight - Plot of the total B-field versus distance along the toroidal axis for the Rodin coil. The Rodin coil in graph eight reflects a coherency of response not apparent in conventional toroids per graph five. See how smooth and cohesive it is. There is a symmetry that is non-existent in the rocky and rough standard coil.











Graph Two - Expanded view of graph one of Rodin and standard toroidal coil for frequencies between one megahertz and ten megahertz. The Rodin coil is much more selective in its' responsiveness than a conventionally wound coil as shown in graph five below.

chemistry, ceramic technology, electrical engineering and more."

Still, NASA was interested enough to bring him to its Marshall Space Flight Center four days ago, and to Columbus to see whether his work can be duplicated.

Podkletnov reported that he reduced gravity while a 12-inch superconductive ceramic disk was spinning rapidly inside a container of super-cold liquid nitrogen. He said all objects placed above the spinning disk showed a small drop in weight.

Despite many attempts, NASA's Marshall Center had no success in replicating the experiment.

So NASA came to Superconductive Components. In February the company was awarded a \$70,000 NASA grant to duplicate and someday enlarge the superconducting disks.

One day the space agency would like to stack ceramic disks atop one another, freeze and spin them, and watch gravity lose its edge, Koczor said.

James Gaines, vice president and general manager, said if Superconductive can duplicate Podkletnov's disk, it could lead to a second NASA award of about \$750,000.

"We've sold materials to NASA and a number of credible people," Gaines said. "But we've also sold it to every kook in the world. We've had the president of every UFO society in the country buying small versions of this stuff."

The biggest ceramic disks that Superconductive has made are 6 inches in diameter.

"The degree of difficulty goes up when you make the disks bigger," Gaines said.

Still, he said Superconductive is willing to give it a whirl.

"When his idea first hit the Internet, hundreds of people were trying to duplicate it," Gaines said. "Now, it's winnowed down to the strong-hearted people with a lot of money."

NASA has the money.

"I don't know if it's going to work," Gaines said. "But if it does, it's going to be a hoot."

Back to Quantum Cavorite: Gravity Shielding And Superconductors

Web Page Created by Pete Skeggs, 10 May 1998.

Thanks to Terry Blanton <commengr@bellsouth.net> for posting this to vortex-l@eskimo.com (Vortex list).

Also thanks to Robert Stirniman <robert@skylink.net> for passing it on to me.

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Lat is "Scalar Electromagnetics"?

By Rick Andersen, 7/3/97

Scalar EM is the brainchild of Lt. Col. (retired) <u>Thomas E. Bearden</u>, a systems analyst and wargames specialist who has been advocating a view of electromagnetics which is based on the notion of a vast, unseen background of scalar energies (as opposed to vector energies) which underly all physical reality.

What electrical engineers work with today, claims Bearden, is a subset of a higher-topology EM. Bearden claims that the four "Maxwell's Equations" taught today in electrical engineering are actually an over-simplified subset of Maxwell's original work. The pruning was done by Oliver Heaviside in the late 19th century; Heaviside took Maxwell's original equations, written in Hamilton's quaternions (related to what we nowadays call spinors), and "simplified" them by lopping off the scalar part of the complex numbers, leaving the easy-to-work-with vector part intact—which radio engineers loved. After all, the entire electronics industry as we know it grew out of the telephone/radio technologies of the early 1900's. Who can argue that the "vector" approach is inadequate?

Well, Bearden says that when Heaviside threw out the scalar part of the quaternionic EM equation, he unknowingly threw out the possibility of unifying gravitation with electromagnetism— which has been a holy grail for scientists since Einstein himself wrestled with the problem. That's because the scalar part of the quaternion, according to Bearden, was the part that captured or modeled the "stress on the aether"—which leads to curving/warping spacetime a la Einstein. Tom Bearden says we CAN unify gravity with EM, and convert back and forth between them, if we understand how vectors and scalars relate to one another and what the ramifications are.

Vector fields can evidently be assembled by properly interfering scalar potentials (predicted in 1903-4 by mathematician E.T. Whittaker and probably engineered by the Soviets).

Conversely, scalar fields can be created by destructively interfering vector fields, in a nonlinear medium. Varying the vector components rhythmically produces what Bearden calls "scalar waves". These ripples in spacetime are believed to induce a wavelike stress in the "aether"; this in turn leads to engineering the structure of pure space and/or mass in a localized area—in other words, implementing General Relativity (spacetime curvature) on the lab bench!

Tom Bearden has gone on record, in several of his books published in the 1980's, to proclaim that the former Soviet Union had created a fantastic arsenal of mind-bending weaponry based on this scalar technology, which they called "energetics" and which Bearden claims was developed from certain discarded ideas originated by Nikola Tesla. Now that the Cold War is apparently over, we're not sure how Bearden views his previous assertions, but we note that he has turned his attention away from Soviet scalar weapons and toward the production of "free energy" from the vacuum of space, using the principles of optical phase conjugation, but in a more generalized mode.

Here is the point:

If Bearden is correct in his Scalar EM theory, then we can build devices which would enable us to alter gravity, time, inertia, and the apparent mass of an object. This of course has ENORMOUS implications for military applications, space-vehicle drives, time-travel, teleportation, paranormal phenomena, and just about every other area one can think of.

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Section I

Introduction

ELECTROSTATIC PROPULSION BY THE BIEFIELD-BROWN EFFECT

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INTRODUCTION: THE BIEFIELD-BROWN EFFECT

Thomas Townsend Brown was a student at Denison University, Ohio in the early 1920's. In 1926, T. Townsend Brown had noticed a phenomenon of movement in an electrical capacitor when charged. This observation was the actual birth of the so-called Biefield-Brown Effect. He had discovered this effect while researching the effects of X-rays generated from a Coolidge tube in the X-ray Laboratory of Bethesda Hospital, Zanesville, Ohio.

In 1926 Brown brought his observations to the attention of Dr. Paul Biefield, Professor of Physics and Astronomy at Denison University, Granville, Ohio, and Director of Swazey Observatory who suggested certain experiments to determine the origin of the effect and to see if it could be enhanced.² Biefield wondered if an electrical capacitor, hung by a thread, would have a tendency to move when it was given a heavy electrical charge. The initial two experiments conducted by Townsend Brown provided the answer. There is such a tendency.³

The first startling revelation was that if placed in free suspension with the poles horizontal, the capacitor, when charged, exhibited a forward thrust toward the positive pole. A reversal of polarity caused a reversal in the direction of thrust. The second startling revelation is demonstrated by balancing a capacitor on a beam balance and then charging it. After charging, if the positive pole is pointed upward, the capacitor moves up. If the charge is reversed and the positive pole pointed downard, the capacitor thrusts down.

These two simple experiments demonstrate what is now known as the Biefield-Brown Effect.²
The Biefield-Brown Effect states that an electrical capacitor will move toward its positive pole and remain so positioned until discharged; that this movement will occur regardless of which plate of the capacitor is made the positive pole or which side of the dielectric receives the positive charge.¹

The intensity of the effect is proportional to the total charge Q induced on the surface of the plates

$$Q = CV , \qquad (1.0)$$

where C = the capacitance of the capacitor (Coulombs/Volt, C/V, or Farad, F), and V = the voltage, or potential difference from one plate to the other (Volts, V).

The capacitance is a constant for a given capacitor. Its value depends on the structure of the capacitor itself. For a parallel-plate capacitor with a dielectric, the capacitance C is given by the equation:

T. Townsend Brown "Early Laboratory Reports and Memorabilia" @ 1996 by Optical Multimedia.



BACKGROUND

Studying this effect, Brown pointed out in 1923 that this tendency of a charged capacitor to move might easily grow into a new and basically different method of propulsion. By 1928 he had built working models of a boat propelled in this manner. By 1958, he had succeeded in developing a 15" diameter model that could lift over 110% of its weight made only of metal and Pyrex with 50 kV.

Later after building models and trying endless variations in size, shape and design of his charged capacitors, Brown made a discoid capacitor which flew around a maypole. Discoid airfoils 24" in diameter, designed and built by Brown, have attained a speed of 17 ft/s, or ~ 11.8 mi/hr, in the Brown laboratories. These discs were a variation of the simple parallel-plate capacitor, charged with 50 kV, or 50,000 volts of direct current. Tethered to a mast, they spun in a circular 20 ft. in diameter. The continuous energy input necessary to keep them flying is reported to have been 50 watts, about as much needed to light a small light bulb. The weight of these units was about 1200 g, or around 42 oz., or near 2 and 6/10 lbs.²

Another set of experimental discs 3' in diameter, also tethered to a central pole, ran a 50' diameter course. These discs were placed under 50 kV also and "their speeds were reported to be so impressive as to be classified."

Many scientists have witnessed these flying discs. There is a slight hum emanating from the discs as they fly. In the dark they glow with a lavender light. The sound and light radiating from the discs is probably due to the ionization of the air created by the high voltages. They whirl in free flight, their power being supplied to them through wires from the central mast.

Townsend Brown's recent and essential research has been conducted in France, under French Government sponsorship. There Air-France successfully flew some of his discs in a high vacuum² (10⁻⁶ Hg).¹¹

This engineering feat by Townsend Brown is all the more remarkable when we consider such a machine produces thrust with no moving parts, does not use any aerodynamic principles of flight, and has neither control surfaces, nor a propeller.²

THE THEORY

It was T. Townsend Brown's belief that through the Biefield-Brown Effect, a tie between electricity and gravitation had been established, brought about and held by the simple means of an electrical capacitor. According to the classical Newtonian view of gravitation, the earth creates and is surrounded with a gravitational field which approaches zero as one goes far into space. This field presses objects and people to the earth's surface.

However, through the utilization of the Biefield-Brown effect, the charged capacitor can generate an electrogravitational field of its own which modifies the earth's field. This field acts like a wave, with the negative pole (cathode) at the top of the wave and the positive pole (anode) at the bottom of the wave. The charged capacitor travels like a surfboard on the incline of a wave that is kept continuously moving by the capacitor's electrical current source.

Since the orientation of the field can be controlled, the charged capacitor can thus travel on its own continuously generated wave in any desired angle or direction of flight. Since the charged capacitor always moves towards its positive pole, the control of the saucer is accomplished by varying the orientation of the positive charge. Control, therefore, is gained by switching charges rather than by control surfaces (such as changing angles on a plane's wing). Since the charged capacitor is traveling on the incline of a continually moving wave which it generates to modify the earth's gravitational field, no mechanical or chemical propulsion is necessary.²

They create a modification of the gravitational field around themselves, which is analogous to putting them on the incline of a hill. The electrogravitational disc creates its own "hill," which is a local distortion of the gravitational field, then it takes this "hill" with it in any chosen direction at any rate.

In section II of this proposal I treat this descriptive theory more rigorously according to the principles of general relativity, showing how "hill" and "wave" are analogies for the curvature of the spacetime fabric induced by the high electrostatic charges on the capacitor's plates.

A.L. Kitselman, "Hello Stupid" privately published, La Jolla, California, 1962.



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LaViolette, P.A. "The U.S. Antigravity Squadron" in <u>Electrogravitics Systems: Reports on a New Propulsion Methodology</u> by Thomas Valone (Washington, D.C.: Integrity Research Institute, 1994).



1.2 SPACETIME CURVATURE AND GRAVITY

We may say that, at the present time, no departure from the predictions of general relativity has been confirmed and that general relativity remains the best theory of gravitation that we have. Einstein's theory of "general relativity" has two central ideas: (1) Spacetime geometry "tells" mass-energy how to move; and (2) mass-energy "tells" spacetime geometry how to curve. Gravity is thus not a foreign and physical force transmitted through space and time, but a manifestation of the curvature of spacetime. That, in a nutshell, is Einstein's theory.

1.3 CURVED SPACE

The key to general relativity is Einstein's revolutionary idea that space becomes curved in the presence of gravitating matter. On a curved surface there are no straight lines, but one can define a curve that shares their principal property: it is the shortest curve that connects two given points. A curve with this property is called a geodesic; it is the "straightest" possible line. Arthur Eddington pictured the distortion of space by a massive body like below in Fig. 5.

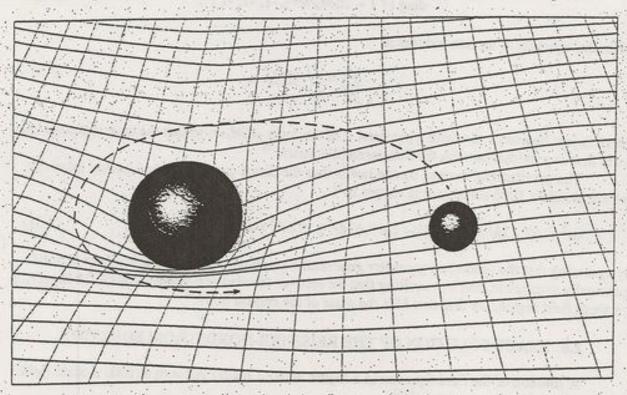


Fig. 5. The Curvature of Space. A smaller ball rolling on this surface will respond to the curvature of the sheet of space as if there were an attractive force between the two objects, 10 not unlike a planet's orbit.

1.4 THE GEOMETRY OF SPACE-TIME

An additional complication arises when curvature is introduced in relativity theory. The Lorentz transformations of special relativity demonstrate that space and time are intermixed: a space coordinate in one frame of reference corresponds to a combination of space and time coordinates in another frame. Thus, curvature cannot be confined to spatial dimensions alone. In general relativity, it is not three-dimensional space that is curved but rather four-dimensional space-time.

Curved space-time is thus an even more abstruse concept than curved space.



3.0 VACUUM ENGINEERING

The concept "engineering the vacuum" was first introduced by Nobel Laureate T. D. Lee in his book <u>Particle Physics and Introduction to Field Theory</u>. 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." ¹⁷

3.1 ELECTROGRAVITIC PROPULSION

According to the theory of general relativity, if one could deterministically alter the local curvature of spacetime, then particles moving within that spacetime would move along geodesics induced by the spacetime curvature. The use of electromagnetic fields to curve spacetime represents a powerful way of introducing force upon a system not by generating a reaction force, but by curving the local spacetime of the system itself.

The exclusive use of electric fields or electrostatic fields to generate this spacetime curvature to tell mass-energy how to "move" may be termed electrogravitic propulsion.

3.3 THE BIEFIELD-BROWN EFFECT

Let us examine the implications of this principle with regards to a simple capacitor composed of a positively charged sphere at one end and a negatively charged sphere at the other, separated by a distance d and connected by a dielectric rod (see below, Fig. 6).

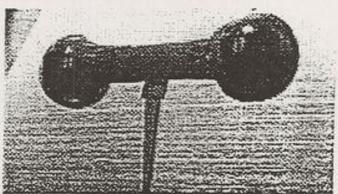


Fig. 6. Two Sphere Capacitor with Dielectric.

Designed by Jean-Louis Naudin & Andre Tuszel.

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The local curvature of spacetime occupied by this system would therefore be defined by a variation of the Reissner-Nordstrom equation, where the spacetime at any point and time in the spacetime continuum occupied by the capacitor would be curved by the independent contributions of the mass of the spheres m, the charge contributions (+Q or -Q), and the background curvature induced by the earth (Schwarzschild's metric, for example).

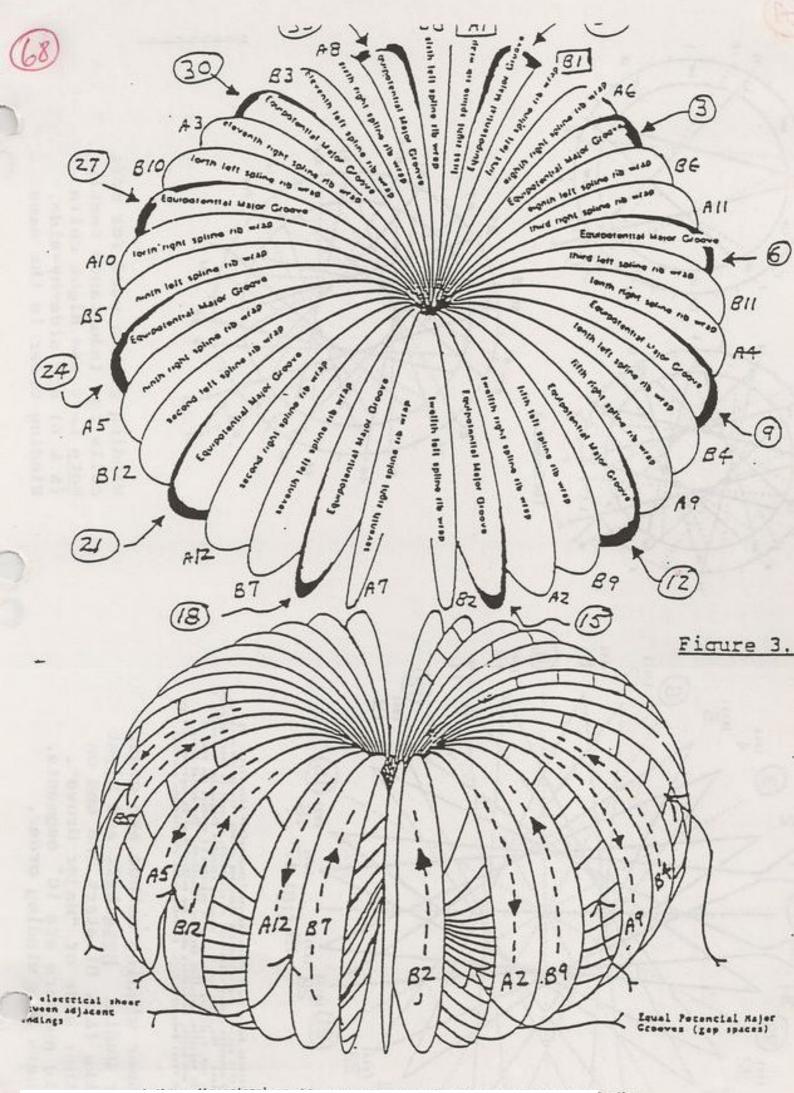
The deviation from an uncharged condition is noteworthy. The difference between the Reissner-Nordstrom metric and the Schwarzschild metric indicates the contribution of the high electrostatic charges to curving spacetime. In the case of the positive pole, $\Delta ds = +Q/r$, which is positive due to the positive charge. In the case of the negative pole, $\Delta ds = -Q/r$, and hence negative due to the negative charge. The positive and negatively charged regions of spacetime will thus have metrics of different values. I posit that this differential between the adjacent

[&]quot;Jean-Louis Naudin, "The Electrostatic Pendulum Experiment—Questions and Answers" JLN Labs, http://ourworld.compuserve.com/homepages/jlnaudin/html/

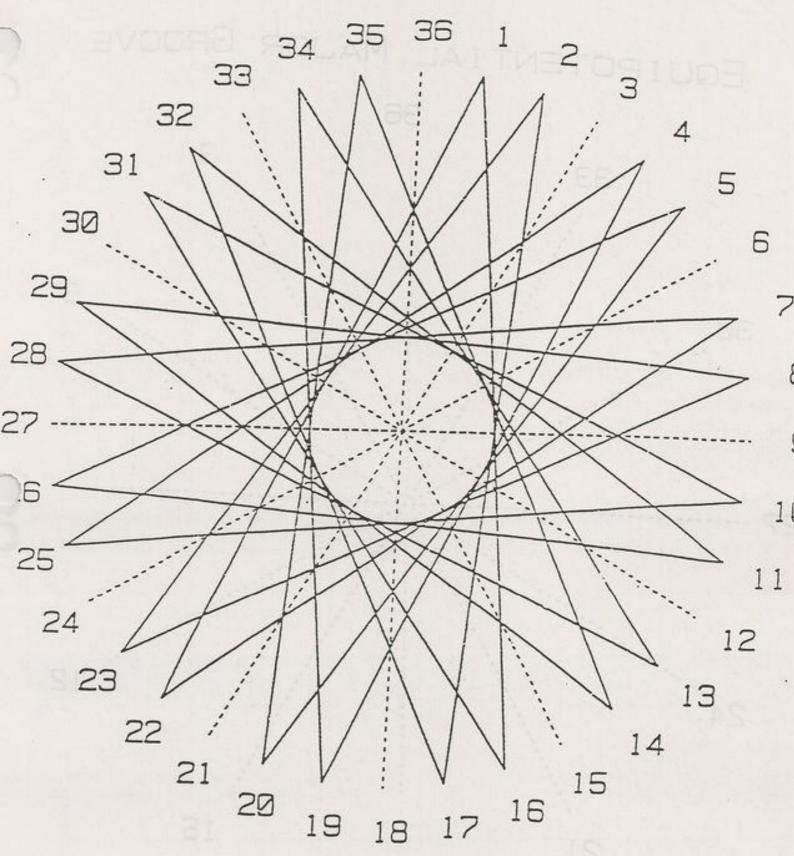


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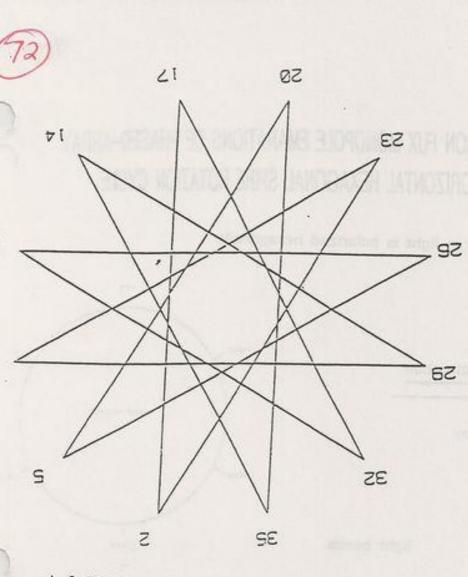


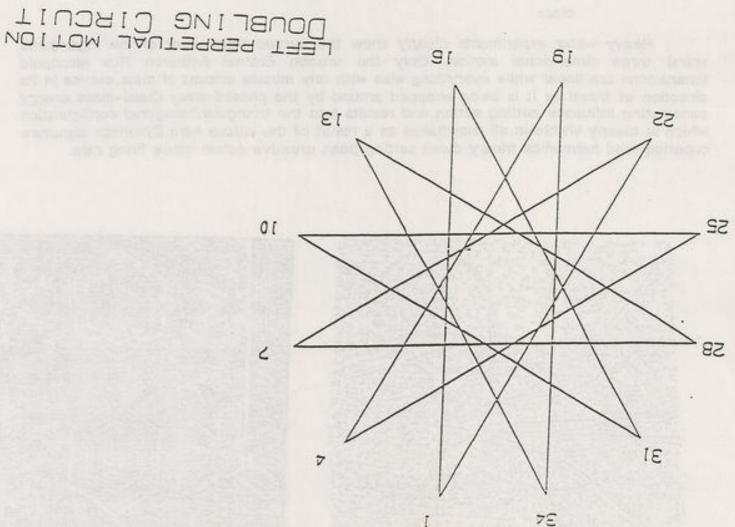


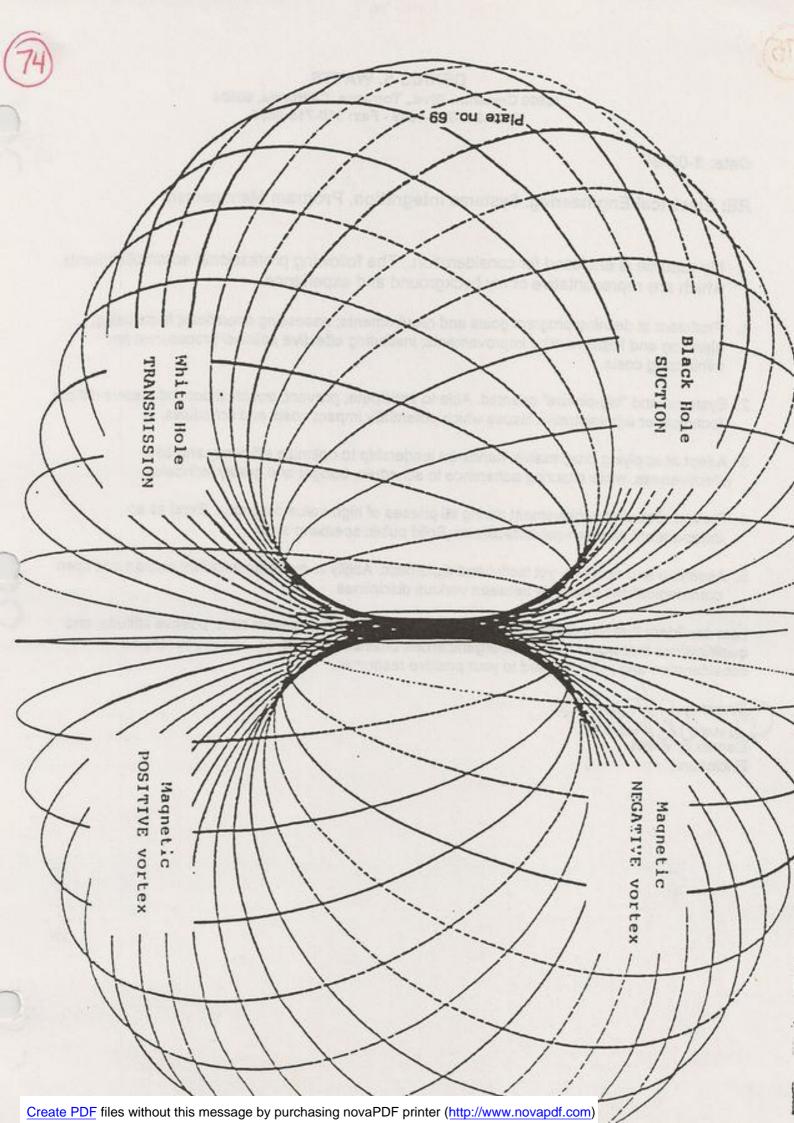


winding pattern for a torus which creates Synchronized Electricty. By
ding in this manner, you orient the electrons moving through the windings
thereby minimize random collisions of electrons, as well as heat, friction
d reluctance. The right and left doubling circuits (beginning and ending at
cosition35; and, beginning and ending at position1) conduct the flow of
ectrons in opposite, parallel diagonal directions. The dotted lines
beginning and ending on numbers which are multiples of 3) represent the gap
dings.

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Dennis S, Watts 18609 Crenshaw Blvd. Torrance, California 90504 Home: (310) 715-1689 Fax: (310)715-2555

Electrical Engineering, Systems Integration, Program Management

As a Electrical Engineer with many years of extensive experience in engineering programs related to the design and development of electronics and communications systems in the military and space hardware environments. Outstanding experience in the design and implementation of ATE systems, hardware and procedures. Possess a BSEE Degree from Howard University.

Objective: Engineering Program Manager

The following technical qualifications and accomplishments have been acquired while performing on a number of projects for the USAF, US Navy, NASA, and other Federal Government agencies.

Summary of Technical Qualifications:

- Computer literate Windows 95 & Mac OS.
- 2. Proficient with Microsoft Office Suite of software (MS Excel MS Word).
- 3. High Speed Signal Processing, from 10 to 100 MHz
- Wrote Hardware Systems Prime Item Development specifications.
- Analog & Digital Design & Development, related to Digital communications Systems.
- 6. Responsible for Space Qualified Integrated System
- 7. RF Circuit Design & Development Systems Analysis
- 8. Performance Verification Test.
- Functional Check Out & Acceptance Testing
- Performed Project Engineering for Space Shuttle System Integration Project Office.
- 11. Familiar With ECL, TTL and CMOS Technology.
- 12. Designed & Developed Manual & ATE Systems
- 13. Developed Flight and Post Flight Project Plans
- Establishment of Conceptual and System Requirements
- 15. Responsible for Schedules and budgets
- 16. Wrote Acceptance Test Procedures
- Managed Interface Control Documents for Space Shuttle program.
- 18. Prototype electronic controller circuit using Intel one time programmable chips
- Proficient with Key CAD Complete engineering design
- Developed RF and IR remote control electronic controllers software



A.. Preparing detailed system test plans; Reviewing and writing test Procedure monitoring/conducting subsystem and system test, interfacing with subcontractors and reviewing subcontractor test plans. Supporting launch site integration and developing launch site test flows and procedures.

As a Systems Integration Project Engineer, provided support to NASA and the Space Shuttle Vehicle (SSV) Program. Task included the following:

- A. Responsible for remaining technically cognizant of the ground systems data acquisition capability for the SSV program. Also, monitoring and maintaining the Work Breakdown Structure for activities related to the ground system support activity.
- B. Responsible for reviewing and coordinating proposed changes and revisions to the Interface Control Documents (ICDs) for the SSV program.
- C. Coordinated a Rockwell position and prepared a presentation with the approval of the affected engineering departments.
- D. Coordinated and briefed the proposed ICD changes with technical and programmatic recommendations to Rockwell Systems Integration and NASA Management.
- E. Responsible for remaining technically cognizant of the flight operations for the Columbia (OV-102) and the Endeavor (OV-105) SSV's.
- F. Responsible for preparing and presenting to the customer (NASA), "The "Ascent Commit to Flight Ground Rules", The Post Flight Report, maintain budgets and schedules for each Flight.

NORTHROP ELECTRONICS DIVISION
Hawthome, California 04-82 to 02-88

Engineering Specialist to Project Engineer

Responsible for the design and development of a Mobile Automatic Electronics Calibration Cart for the US Air Force. Used to calibrate Automatic Test Equipment (ATE) via software resident within the test system and a IEEE-488 bus architecture. The calibration cart interfaced with eight different ATE stations.

As Project Engineer working with the Program Office, I was responsible for Identifying and solving technical problems of the AIRS Inertial Measurement Unit, the guidance system for the Peacekeeper missile, the "state-of-the-art" in guidance navigation systems, and the Automatic Test Equipment (ATE) used to support the subsystem.

A company called TRW Redondo Beach, California

07-79 to 04-82

Member of the Technical Staff Electronics Engineer

Using specially designed firmware, created special test equipment to aid debug and test phase of the first NATO Military Digital Radio. I was responsible for Research, Design and development of the Demultiplexing subsystem of the radio receiver/transmitter system.

Using a digital analyzer, 8080 microprocessor emulator and oscilloscope to test and debug all iniques.

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I was introduced to Marko when he presented his work to a small group of staff members at the Maui High Performance Computing Center (MHPCC") about two years ago. There were many claims made that were very profound, which would Instill three basic reactions from people. First, that these claims are totally unfounded and warrant no further effort or thought. Second, that there may be something to some of the claims that warrant further investigation, and finally, a near wholesale embrace of the claims. The staff at the center fell into the first two categories, myself being one of those In category two. I have spent many years doing independent advanced research and development with friends in many disciplines, and have from time to time had the privilege to glimpse into areas of science that have expanded my understanding of how things work. Some areas of Marko's presentation paralleled some of the findings I have already observed. These parallels made me interested enough to pursue this work as my limited time permitted. My current opinion remains the same as it did two years ago, with nothing dissuading or persuading me one way or the other.

There are some claims however that I do reject. My goal is to pull out of Marko's work those golden nuggets (if any) that may be of significance.

Finally. I do not claim to be a world class scientist, or a very good scientist (as the current philosophy would define one), but I do believe I have a keen eye toward new and unique ideas and products, and enough science, math and business background to make things happen. I do not claim to have all the answers, thus I could be giving Marko less credit than he deserves, but I do need to base all my decisions on sound logic and the scientific process.

Current Efforts:

Our efforts thus far have been to do some basic mathematical definitions, modeling and explorations. There has been no conclusive results from this work to date, but the work will continue as time permits.

A list of the work includes:

Programming a basic Rodin Math Calculator that runs under MS Windows.

This calculator is not complete, but did give me an understanding of the basic math. Mapping the doubling circuit using a spread sheet and doing some experimentation and learning.

This is a good exploratory tool to try out new ideas.

Beginning the formalization of the Rodin math using basic Field Theory.

Still working on this one, no results to report.

Theoretically analyzing the Rodin coll for expected results.

This analysis is complete, and as far as we can tell, the Rodin coil reacts (on paper) like most any other coil. The theory predicts that approximately 85% of the energy is manifested as a magnetic field through the center of the torus. I believe this is consistent with measured results.

Future Efforts:

The areas that we wish to pursue are:

- Finish the formalization of the Rodin math using basic Field Theory and how it maps to the Rodin coil.
- Continued experimentation with the spread sheet.
- Analyzing an actual coil to verify published and verbal claims.

The one area that we feel needs further exploration is the coil's ability to couple with another coil, and to measure the results. If we could make two coils, or have the coils sent to us, we could begin this work.

The bad news: Because we are not in a position to accept money for doing this work (we are over worked now) the results would be produced as our time permits us to measure them.

The good news: The laboratory in which these measurements would occur has state of the art equipment. Some of the measuring devices are currently being patented.

Another area is to verify the claim of weight asymmetry of the coil. The lab has a very sensitive scal can weigh down to the microgram.



7/15/98

Mr. Marco Rodin, Box 1690 Koloa, HI 96756 808-634-5344

Dear Marco,

Oscar Hsu and I spoke for more than an hour yesterday, and I found the conversation fascinating. He explained that his interest is mostly in gravity manipulation. Oscar indicated that you have the original Ramsay Rodin coils in your possession, but that they have not yet resurfaced after your most recent move.

I believe that those coils are the key to the recognition that you deserve. I STRONGLY urge you immediately find them and send them to Oscar so that he can run some simple tests which would only take a few days. I have been doing a lot of thinking in the last two weeks about Ramsay's coils made to your specifications, and have concluded that there are only three possible outcomes to your making them available to Oscar.

One possibility is that we conclude that Bill Ramsay was sloppy in his testing. According to Oscar, he doesn't believe this, and I accept his opinion.

The second is that Bill Ramsay is a bit of a charlatan. I don't believe this for one minute.

The third is that Marco, Bill, and Oscar split a million-dollar Nobel prize for Physics in the year 2000!! If this is the result, you will have to beat off investors with a baseball bat, and you can build all of the next-generation prototypes you can imagine with complete personal control of the projects.

So, Marco, PLEASE immediately after reading this letter, drop everything else, call some friends, search your boxes for those coils, and send them on loan to Oscar. I believe he is completely trustworthy. This is a very easy and logical first step. If Oscar can confirm Ramsay's results, you-will shortly find yourself in the catbird's seat, with the whole world laid out before you.

Now back to topic of what I may be able to do to assist. If you can get Scott Nelson to define the next generation prototype in detail, in sketches, I may become quite useful. My expertise is in figuring out how to build or manufacture things. Until that detailed design is completed, my usefulness to you will be very limited.

Sincerely,

Chick Lewis

Soligen Program Manager



don't yet know what's critical, may be necessary. Later we can 'play' with eliminating the 'variables.' Also, this approach could, likely will, save us much do-it-agin-right time later. Which I had to go through originally since I didn't anticipate. Just as soon use 20/20 foresight than hind sight!

I notice, in your paper, you didn't mention the the 10 +/cm 'plume' of subtle-energies. Probably a good idea not too
yet until we both, if we do, observe 'it' individually and
maybe have some successes in phtographing 'it', whatever it
is. I'll try to locate a decent (which kind?) camera here to
borrow for this---maybe a couple to try. Also different kinds
of film with different spectral 'windows' of responsivenesses.
A challenge. Some ideas of 'film tests' that might be run to
give visual evidence of this? I have a few. Yours? (Cheap
and easy!)

Oscar, it might turn out that what I, and my wife Jay, observed at that time and in that location, South Carolina, was a unique effect NOT repeatable here and there in different space-time coordinates. I'm not sure. Which, of course, is reason enough for us to do our tests, with all the 'controls' we can think of; reasonable, sensible ones; to find out. If NOTHING, we can go about our other business as usual. If we observe at least SOMETHING, we can proceed to next logical steps.

One of these 'steps' for us is to propose other tests; some might be repeats, with better controls and equipment, of those I already ran. Some will require capabilities I don't have. Such as, what I'm convinced has the greatest potential to give us the most knowledge in the shortest time, operating variously powered coils within an air-evacuated rare-gas environment. Several I know have the capabilities to do this with SMALL coils but would need close directions in how to do it and, depending on emerging results, what to do and try next. I suppose best done with me there---were-ever it is. Which may present some challenges since funding WILL be needed and there are some personal limitations for me. This to be worked out later.

I'll try to get the 'kit-form' materials put together for our 'adventure' soon. Don't know exactly when. Quite time-consumming just for this and my time is pretty much tied up. Maybe in stages. Once done, the stuff will be in the mail to you with it's twins here and ready. Expect it in a little while. And to spend some phone time going over it. I don't have E-mail. If you like, we can also go over the gob of stuff I sent you then.

Oscar, I like your proposal and the ways you put it together. I suppose it will have to be redone a few times to satisfy someone's format. Hope you're up for it. I'm not.



Abstract

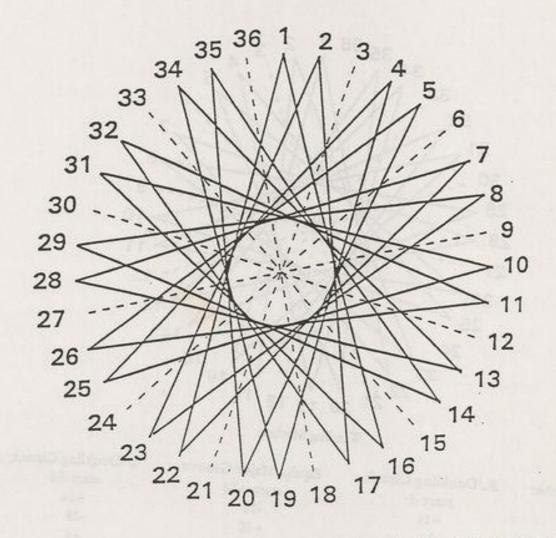
A winding pattern is proposed which creates Synchronized Electricity. Random collisions among electrons, as well as hear, friction and reluctance are minimized by the design. The winding design consists of two circuits which carry energy (electricity) in opposing direction, separated by gap spaces. Thus, the electrons flow in opposite, parallel diagonal directions, with electron-carrying windings separated by space. The current is PDC (Pulsed Direct Current), and it flows along these two conducting circuits. There is an equal-width, major groove gap space between the two conducting circuits. Thus, the coil is really composed of three parts, even though one is left empty. The winding pattern creates an electrical shear effect between adjacent windings, which isolates the Right Doubling Circuit from the Left Doubling circuit. "Essentially I have discovered the bounded infinity pathway electricity flows, beginning where it ends without it having to be coerced" (Marko Rodin, Explore Morel, Number 18, 1996).

Sources:

2. Explore Morel, Number 18, 1996. Article by Col. Thomas Bearden, Associate Editor of Alternative Energy Research.

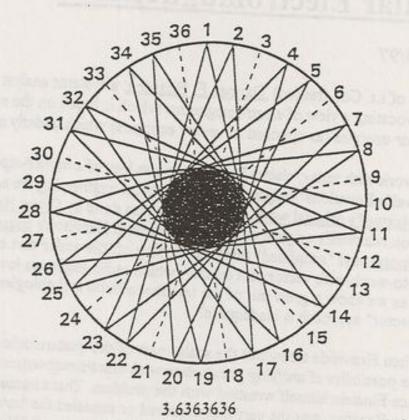




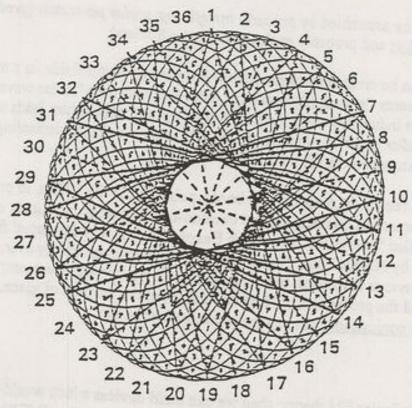


A winding pattern for a torus which creates Synchronized Electricity. By winding in this manner, collisions among electrons are minimized, as well as heat, friction and reluctance. The Right and Left Doubling Circuits (beginning and ending at position 1 and beginning and ending at position 2, respectively) conduct the flow of electrons in opposite, parallel diagonal directions. The dotted lines (beginning and ending on numbers which are multiples of 3) represent the Gap Spaces (the Equipotential Major Grooves) which separate the windings.





The ratio of the diameter of the Outer Circle (blue line) to the Inner Circle (solid blue) always = 3.63636363636..... = 9. For example, if the outer circle is 80 mm, the inner circle is 22 mm.



The Doubling Circuits wrapped around the Rodin Torus



The Big Question is, Will the 21st century see the acceptance, development, and implementation of Bearden's ideas (in plain public view, mind you), or will Scalar EM be found to have been just another dead end?....

Do certain world governments have these devices NOW?... Bearden says at least "three other nations, not hostile to the U.S.," now possess Scalar technology.

We need to build something... Hey, didn't somebody use a strong magnetic field to levitate a frog recently?.... I wonder how far we are from a real Hoverboard?

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Sincerely, Foot C. Mul

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(808) 956-2833 (voice)
(808) 956-2832 (facsimile)





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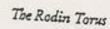




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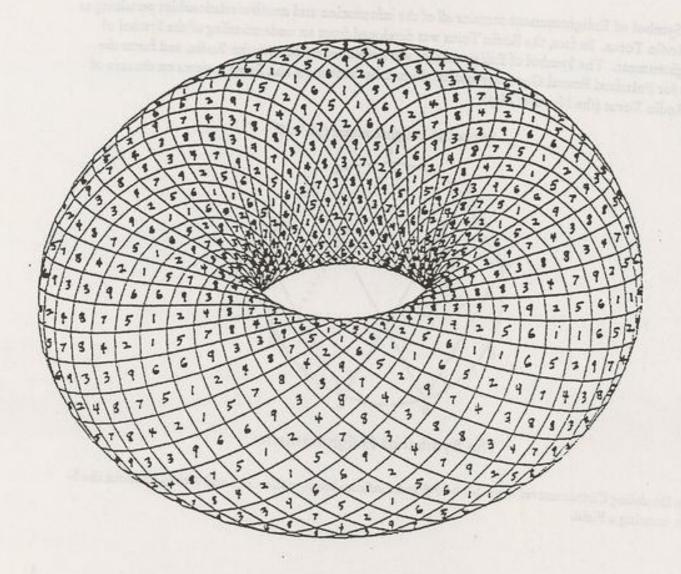
Bibliography







Oblique view



Oblique, lateral view of Rodin Torus, showing the Number Map on the Skin of the Torus



COTNELSON JIVERSITY OF HAWAII 6/18/98

Dear Scot, lease conduct an independent third party evoluation to verify my research Escoveries in cellular communication. Som noviding 100. for your costs to use as , ou deem fot as an unrestricted gift. I request that any results or fendings be placed in the public domain without any copyright or patent attachments made for the gree utilization by all. much aloha, Marko Rodin Divine Teaching Materials

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Pol

traditional granting agencies and sources. The University of Hawaii Foundation requires that a minimum of \$1,000 dollars be deposited in order to initiate an account for a research project. I already have about \$100 (received from Mr. Marko Rodin), but that is not sufficient.

Would you be willing to assist me in establishing legitimacy for my research by contributing a minimum of \$900? All of my research data and results for my plant disease experiments from the project will be shared with you, unconditionally. I also am willing to submit a specific proposal(s) to you prior to receiving any support. My sincere thanks, Dr. Bakken.

Sincerely,

Dr. Scot C. Nelson

Associate Professor University of Hawaii at Manoa

Cooperative Extension Service

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July 21, 1998

Dr. Earl Bakken P.O. Box 384360 Waikoloa, HI 96738

Dear Dr. Bakken,

My name is Dr. Scot Nelson. I am a fully tenured, Associate Professor at the University of Hawaii, where I have been employed as a faculty member engaged in teaching and research since 1992. I am a botanical epidemiologist (a "plant doctor", or plant pathologist), providing instruction and research in the understanding and management of plant disease epidemics. Attached please find an abbreviated copy of my Curriculum Vitae.

The purpose of this letter is to ask for your financial support for a project which I believe will interest you, and one which holds potentially great promise for human medicine and healing. The project is actually a book that I am writing (entitled "The Dandelion Puff Principle") pertaining to the work and ideas of a colleague of mine, Mr. Marko Rodin. The timely completion of this book is important enough for me to request an unpaid leave of absence from my current faculty position with the University of Hawaii in order to finish it. However, I will be unable to support myself financially during this leave of absence without significant outside assistance, and I will likely be unable to finish the book at all in the near future if I do not take a leave of absence.

The purpose of the book is to provide and introduction to the ideas and concepts associated with the work of Mr. Marko Rodin. i.e., the Rodin Torus and Polarized Fractal Geometry. The book will be in a glossary format, wherein terms are organized along conceptual lines within chapters. This book represents the first time that Mr. Rodin's ideas and theories will be presented with clarity, conciseness and completeness. The book is intended to appeal to both the average reader and to the more advanced reader in the scientific community.

I started writing the book in January, 1998 during my spare time on weekends and evenings. From January-May, 1998, I worked approximately 700-800 hours on the manuscript. I produced a first draft which I submitted to my publisher, Mr. Bob Goodman (New Science Publishing, Encino, California) in May, 1998. Mr. Goodman has indicated his willingness to publish the book upon its completion. In addition to my writing of the manuscript, I have solicited the assistance of two other authors who will contribute to the book (Mr. Marko Rodin and Dr. Oscar Hsu, a physicist).





Sincerely,

Dr. Scot C. Nelson

University of Hawaii at Manoa

sot C. Jul

College of Tropical Agriculture and Human Resources

Cooperative Extension Service

875 Komohana St., Hilo, HI



CURRICULUM VITAE (abbreviated)

Dr. Scot C. Nelson P.O. Box 93 Volcano, HI 96785

Assistant Plant Pathologist (1992-1998) University of Hawaii College of Tropical Agriculture and Human Resources Department of Plant Pathology

Education:

(1979) B.A.

Pennsylvania State University

(History)

(1988) M.S.

Texas A&M University

(Plant Pathology)

(1992) Ph.D.

North Carolina State University

(Plant Pathology)

Research:

Plant disease epidemiology; computer software development; spatial and temporal data

analysis; disease management; disease forecasting.

Teaching:

Plant Pathogens and Diseases (PPTH 405); Plant Epidemiology and Disease

Management (PPTH 612).

Extension:

Pineapple and banana diseases; IPM; training in pest and pathogen identification;

fungicide evaluation.

Book and Journal Articles (1992-1997)

(1) Nelson, S. C. 1997. Spatial Pattern Analysis of Plant Diseases. In: McGraw-Hill Encyclopedia of Science and Technology (in press).

(2) Nelson, S. C., and Rodriguez de Gonzalez, P. 1997. Two-dimensional and spatio-temporal distance class analysis of epidemics. In: Exercises in Plant Disease Epidemiology (L. Francl, D. Neher, and J. Ristaino, eds). American Phytopathological Society, St. Paul MN (in press).

(3) Hughes, G., McRoberts, N., Madden, L. V., and Nelson, S. C. 1997. Validating mathematical models of plant disease progress in space and time. IMA Journal of Mathematics in Medicine and Biology 14:(in press).

(4) Nelson, S. C. 1996. A simple analysis of disease foci. Phytopathology 84:332-339.

(5) Fukui, R., Fukui, H., McElheney, R., Nelson, S. C., and Alvarez, A. M. 1996. Relationship between symptom development and actual sites of infection in leaves of anthurium inoculated with a bioluminescent strain of Xanthomonas campestris pv. dieffenbachiae. Applied and Environmental Microbiology 62:1021-1028. (6) Sipes. B. S., Nelson, S. C., and Arakaki, A. 1996. Melaidogyne javanica damage to dryland taro cultivars. Afro-Asian Journal of Nematology 5:141-147.

(7) Nelson, S. C. 1995. STCLASS, spatio-temporal distance class analysis software for the personal computer. Plant Disease 79:643-648.

- (8) Nelson, S. C. 1994. Spatio-temporal distance class analysis of plant disease epidemics. Phytopathology 83:37-43.
- (9) Nelson, S. C., and Taniguchi, G. 1994. Evaluation of fungicides for post-harvest control of pineapple root rot. Fungicide and Nematicide Tests 48:68.

(10) Simpson, C. E., Nelson, S. C., and Starr, J. L., K. E. Woodward, and O. D. Smith. 1994. Registration of TxAG-6 and TxAG-7 Peanut Germplasms. Crop Science 33:1418.

(11) Nelson, S. C., and Campbell, C. L. 1993. Comparative spatial analysis of foliar epidemics on white clover caused by viruses, fungi and a bacterium. Phytopathology 83:288-301.

(12) Nelson, S. C., and Campbell, C. L. 1993. Disease progress, defoliation and spatial pattern in a multiplepathogen disease complex on white clover. Phytopathology 83:419-429.

(13) Nelson, S. C., Marsh, P., and Campbell, C. L. 1992. 2DCLASS, two-dimensional distance class analysis software for the personal computer. Plant Disease 76:427-432.

(14) Nelson, S. C., and Campbell, C. L. 1992. Incidence and patterns of association of pathogens in a leaf spot disease complex on white clover in the Piedmont region of North Carolina. Phytopathology 82:1013-1021.



Memoranda of Agreement - Since Initial Hire at UHM

YEAR	Source	AMOUNT	INVESTIGATOR(S)	
1994	Council for International			ACTIVITY
	Exchange of Scholars	\$2,500.00	S. C. Nelson V. A. Adisa	Post-harvest diseases
1994	Del Monte Fresh Fruit	\$1,000.00		of pineapple
-7.000		\$1,000.00	S. C. Nelson H. Valenzuela	Potato IPM
1995	Wilbur-Ellis Co.	\$5,000.00	S. C. Nelson	
		111,1111111	J. C. IVEISOR	Fungicide evaluation.

OTHER RESEARCH COLLABORATIONS

Collaborating Investigator(s)	Year	Research topic
Dr. S. Miyasaka and Dr. J. Hu *	1996	Dasheen Mosaic of taro
Dr. Kazuko Takaesu (Okinawa)	1995	Marbling disease of pineapple
Dr. R. Fukui, et al.*	1995	Anthurium blight
Ms. Renee Arias, et. al*	1995	Cabbage black rot
Dr. C. Kenerly (Texas A&M)	1994-5	Phymatotrichum root rot of apple
Dr. Victor Adisa (Nigeria)	1994	Physiology and epidemiology of post-harvest fruit rot of pineapple.
Mr. A. Arakaki and Dr. B. Sipes*	1994	Root-knot nematode of taro
Dr. Steve Ferreira*	1993	Papaya Ringspot
Mr. G. Taniguchi*	1992-7	Pesticide evaluations for pineapple

EDITORIAL RESPONSIBILITIES

Associate Editor - Phytopathology (the world's leading international journal in plant pathology)

Supporting Topics





The invisible Universe



In 1903 Fritz Zwicks found that without unseen matter,

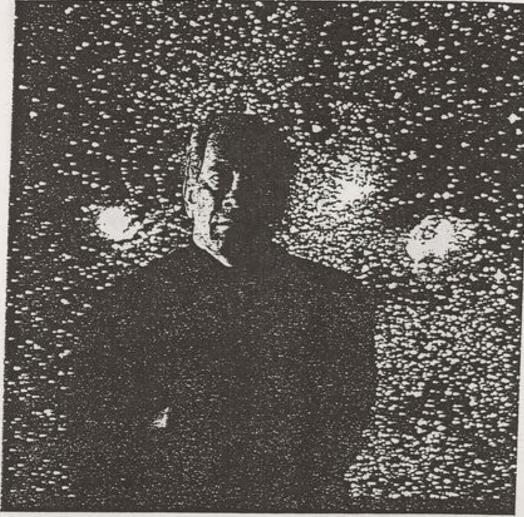
The best analogy I can give to what has happened in astronomy over the past decade and a half is this: suppose you were standing by a stream watching a couple of twigs floating by. Suppose further that the water was invisible to you-that all you could see were the twigs. If those two twigs moved toward each other, you might well decide that what was moving them was their mutual gravitational attraction. But if you took this tack and then calculated how hig the gravitational force between the twigs was-how hard they were pulling on each otheryou would quickly find that it wasn't nearly big enough to explain what you were seeing. Eventually, you would have to accept that there was something else exerting force, something you couldn't see directly, but the influence of which was manifest in the movement of the twigs. Once you had accepted this, you could do two different things to investigate this strange stuff. You could look at lots of twigs and discover that they moved only in a certain region (those on the ground, for example, would not move at all). In this way, you could draw a rough map of where the water in the stream was. You could also reach down into the stream and try to get a handful of the invisible stuff acting on the twigs, so that you could investigate its properties.

What is this stuff and where is it?

Astronomers today are carrying out both kinds of studies. They are looking into the Universe to find out where dark matter is and designing experiments to find out what it is. The first modern look at where it is came in the late 1970s, when astronomers began making detailed studies of rotation of other galaxies. If you think of a galaxy like our own Milky Way, you probably conjure up a picture of a giant pinwheel of stars, majestically turning in empty space. Each star can be thought of as moving around the center of the galaxy in a large orbit-the Sun, for example, takes about 250 million years to make it once around. The rotation is actually a fairly complicated business, because each star has a gravitational effect on all of its neighbors and is, in turn, affected by them. The net result of all of this gravitational to-and-fro is easy to describe (if complicated to work out mathematically) for stars not too close to the galactic center. As long as a star is part of the pinwheel-so long as it is immersed in the gravitational fields of its fellows-it will move at the same speed as all the other stars.

This doesn't mean that the whole galaxy turns like some sort of cosmic merry-go-round. The farther out a star is, the farther it has to travel to make one loop around the galaxy, and hence the longer it will take. Like a group of runners on a curved track, a star on the inside will move ahead or its more distant fellows, even though they are all traveling at the same speed.







David Schramm at the University of Chicago (above) is a leader among theorists trying to discover if dark

matter is made of normal particles or something else we know nothing of. Christopher Stubbs at U.C.

future? The answer depends on how much matter-both luminous and dark-is pulling back on the outward-flying galaxies. Most current theories say that there is just enough mass to stop the expansion and cause the Universe to collapse in on itself again—to "close the Universe" in the jargon of the cosmologists. The amount of matter known to exist is usually expressed as a fraction of this magic number. Luminous matter makes up less than 1 percent of the amount needed for closure. Add in the huge dark matter haloes around galaxies and the stuff known to exist in big clusters, though, and this number climbs to 20 percent or even 30 percent. Theorists say the rest is out there, but where?

One of the cleverest schemes to "weigh" distant collections of stars and their associated dark matter is being carried out by a consortium of scientists led by Anthony Tyson at AT&T Bell Laboratories in Murray Hill. New Jersey. The idea is based on the famous bending-of-light observation that first confirmed Einstein's theory of general relativity. When a beam of light passes near somepull. Tyson's scheme is to look at the distortion of light from distant galaxies caused by clusters of galaxies closer to Earth. The images of those farther galaxies will be altered as the light coming from them is bent by the gravitational pull of the nearer clusters. Think of Tyson's search as analogous to "detecting" defects in a glass window by measuring how much they distort the images of distant buildings and trees.

When observers look 'in back of' nearby clusters, they see the normal spiral shapes of galaxies twisted and distorted into arcs. The degree of distortion of a distant galaxy's image depends on how much mass is bending the light beams. Astronomers find that the amount of distortion is more than what you would get if the only dark matter in the foreground cluster were in the haloes of its galaxies—in other words, there is more dark matter in the Universe than just that found in haloes.

Data confirming the existence of more and more dark matter just seems to keep pouring in. In early 1993, for example, astronomers working with ROSAT, an x-ray

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Anthony Tyson of Bell Labs measures dark matter in nearby galaxy clusters by seeing how they distort light coming from more-distant galaxies. At left is how Saturn would look if its image were subject to similar gravitational distortion (here, a black hole causes the Daliesque effect, but the principle is exactly the same).

it definitely has something to say about dark matter. "The haloes of the galaxies could be baryonic," he points out, "but that would use up all the baryons made in the early Universe."

According to current theory, there was a very narrow window in time (about three minutes into the history of the Universe) when matter was packed densely enough for protons and neutrons to come together to make the nuclei of atoms, and the temperature was low enough for the resulting nuclei to survive. Since the total number of baryons doesn't change over time, observations of atoms formed early on (mainly helium and hydrogen) should tell us the total amount of barvonic matter in the Universe, both then and now, a quantity that turns out to be only about 5 percent of what is needed to close the Universe-about enough, in fact, to make up the haloes of galaxies that Schramm was talking about. (It is possible, however, that any baryonic dark matter is not in those haloes but rather in places and in forms that we have never really considered.)

All of this uncertainty and possibility, of course, is one

makes assumptions about what dark matter is, then builds an apparatus to detect it. If they find the dark matter, of course, the story ends, but if they don't there are always two possibilities: either the dark matter isn't in the place they looked for it, or it's there but it's not the kind of stuff they thought it was.

For example, one form that baryonic dark matter could take would be smallish lumps of stuff scattered around a galaxy-think of a diffuse swarm of Jupiter-size objects floating around out there. For reasons that will become obvious, cosmologists delight in calling these objects MACHOS (from massive compact halo objects). Since they don't shine, far-off MACHOS wouldn't be visible in an ordinary telescope, but they would temporarily intensify (by bending and focusing) the light of any star they happened to eclipse. To someone watching from Earth, it would appear that the distant star being eclipsed by a MACHO would brighten, then fade back to its normal intensity over a period ranging anywhere from hours to years.

Christopher Stubbs, a young physicist who works at

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Satellite image of the early Universe shows clumpy structure that could be caused only by dark matter.

wind" was blowing by. Because dark matter interacts only weakly with ordinary matter, most of the WIMPS pass on through the atmosphere, your body and even the solid Earth without leaving a trace. Occasionally, though, one does interact, and it's the evidence of those elusive encounters that Sadoulet and his group hope to detect.

To do it, a single large crystal of material such as germanium is cooled to within a few thousandths of a degree of absolute zero, so that its atoms are barely moving. Theoretically, on occasion a particle of dark matter will pass through the crystal and interact with one of these atoms, causing its nucleus to recoil. The energy in that recoil eventually will be shared out among the other atoms, raising the temperature of the crystal by a tiny (but measurable) amount. Ordinary particles, such as those in cosmic rays, tend to knock electrons off atoms rather than making the nuclei recoil, so energy is added to the crystal in a different way. WIMPS should leave a clear fingerprint in the crystal.

This winter, the detector will be installed in an underground chamber in the old High Energy Physics Laboratory at Stanford University, across the bay from Berkeley, and the countdown begins.

"We expect to see about one event every ten days or so," says Sadoulet, and he hastens to point out that the main difficulty they will face is picking out the occasional WIMP interaction from among interactions from all the other particles going through their crystal. To give just one example of the kind of problem they face in measuring such small temperature changes, consider this. The stainless steel they use to hold up the low-temperature "icebox" is made by a process that allows small amounts of radioactive cobalt-60 to wind up in the finished product. Some of the particles given off during the decay of the cobalt-60 will necessarily enter the detec-

tell when this happens. That is why the distinctive fingerprint of the WIMP is so important. In the words of Peter Barnes, a Berkeley graduate student who is working on the experiment, "We're supposed to sit and wait for dark matter to come by, but most of the time something else comes by."

While Sadoulet and his colleagues are watching their instruments, other astronomers and cosmologists are finding more and more ways to make dark matter solve their problems when (and if) it's found. Perhaps the best example of this was the discovery, announced in 1992, of the "ripples near the beginning of time" by the Cosmic Background Explorer satellite (COBE). This discovery (left) points to how dark matter plays a role in solving a problem—some would say the problem—in our understanding of the Universe: the question of how the Big Bang led to the clumping of matter into galaxies and the other structures we see when we look out at the sky.

Matter is not spread evenly through the Universe as one might expect. Not only are stars gathered into galaxies, but galaxies are gathered into groups and clusters, and these, in turn, form gigantic structures called superclusters. Our picture of the Universe today is a lot like a pile of soapsuds—the luminous matter (in the form of superclusters) is confined to the soap films, and in between are voids, largely empty of matter. The problem is understanding how matter could have come to be so unevenly distributed.

In an expanding Universe, there are two competing influences. Gravity tends to pull matter together, but at the same time the expansion is spreading the matter farther and farther apart. Whatever clumps of matter survive today are a result of how this competition played itself out in the early Universe. To get the soapsuds Universe we live in, the clumping would have had to have started early, while matter was still close enough together to be pulled into the nascent structures.

First it was too hot, then too late

Until the Universe was about 300,000 years old, however, it was a hot, turbulent plasma-more like the material in a welder's arc than the solid Earth we're on today. If any clumping had started, the intense pressure of the radiation in the plasma would have blown it apart. Only after 300,000 years or so, when the Universe had cooled off to the point that those nuclei could capture electrons (and thus become the atoms we are familiar with) could the gravitational collecting get started. Unfortunately for cosmologists, by then it was too late-not only was matter too thinly spread to form superclusters, clusters and groups, it was too diffuse even to make the kinds of galaxies we see all around us. Something has to be missing from this picture.

Create PDF files without this message by purchasing novaPDF printer (http://www.novapdf.com) d be dark matter. The

sengly. This describes my discovery ormal Systems and Reality accurately to Formal Systems and Reality This is our first example of a case where a formal system is based upon a portion of reality, and seems to mimic it perfectly, in that its theorems are

isomorphic to truths about that part of reality. However, reality and the formal system are independent. Nobody need be aware that there is an isomorphism between the two. Each side stands by itself-one plus one equals two, whether or not we know that -p-q-- is a theorem; and -p-q-- is still a theorem whether or not we connect it with addition. You might wonder whether making this formal system, or any formal

system, sheds new light on truths in the domain of its interpretation. Have we learned any new additions by producing pq-theorems? Certainly not; but we have learned something about the nature of addition as a process-namely, that it is easily mimicked by a typographical rule governing meaningless symbols. This still should not be a big surprise since addition is such a simple concept. It is a commonplace that addition can be

captured in the spinning gears of a device like a cash register.

But it is clear that we have hardly scratched the surface, as far as formal systems go; it is natural to wonder about what portion of reality can be imitated in its behavior by a set of meaningless symbols governed by formal rules. Can all of reality be turned into a formal system? In a very broad sense, the answer might appear to be yes. One could suggest, for instance, that reality is itself nothing but one very complicated formal ystem. Its symbols do not move around on paper, but rather in d'threedimensional vacuum (space); they are the elementary particles of which everything is composed. (Tacit assumption: that there is an end to the descending chain of matter, so that the expression "elementary particles" makes sense.) The "typographical rules" are the laws of physics, which tell how, given the positions and velocities of all particles at a given instant, to modify them, resulting in a new set of positions and velocities belonging to the "next" instant. So the theorems of this grand formal system are the PUFFPRINCIPLE TO ROID MAP possible configurations of particles at different times in the history of the universe. The sole axiom is (or perhaps, was) the original configuration of all the particles at the beginning of time. This is so grandiose a conception, however, that it has only the most theoretical interest; and besides, quantum mechanics (and other parts of physics) casts at least some doubt on even the theoretical worth of this idea. Basically, we are asking if the universe operates deterministically which is an open question.

Meaning and Form in Mathematics

NUMBERS ARE STATIONAR

VECTOR INTERSTICIES UPON THE DANDELION

an Eternal Golden Braid

Douglas R. Hofstadter



Phone Interview



Marko Rodin and Heather Smith phone interview 8/21/98

"AS ABOVE, SO BELOW" Transcripts

- 'ko Rodin (M.R.) The first topic is always the Aetheric Template or the Morphogenic Field, which is the Third Helix in our DNA strand. There is no such thing as anything just occurring in two's. The minimum amount of anything is three (3) parts.
- ther Smith (H.S.) I have been reading esoteric/channeled books that are saying some people now have thier Third Helix fully formed. But if it was always aetheric, then it was always there anyway. It's just people are psychically becoming aware of it now.
- Right. There are so many different modalities to deal with things. Everybody learns things differently or has different takes. Psychically for example. I once saw this article on what is called the Aetheric Net. It was the most crudely drawn picture. It was channeled by somebody. It was this net, it looked like a fishing net. This is the Aetheric Net. I laughed at it. I thought it was the most ridiculous thing I had ever heard, seen or read. Only a year later on my own mathematically, independantly I came to 100% the exact identical discovery. Only the difference was I could do it with math scientifically. Using a black and white mathematical system that could duplicate. So I have learned the hard way (to not judge others). Just like I used to have this employee who's an artist. He came into my office one day and said oh ya, the whole universe is a toroid. It's moving in like this on one side and out like this on the other side. We all knew at the tennis club where we worked that he's completely nuts. Of course he was right too. Then the foremost physicist Keith Watson, who works with all the big names in Europe. He said every Wednesday on the main boulavards there they used to open up their physics office. They would invite all the crazy street and homeless people in to explain all their ideas. He said that's where they got some of their best ideas from, in physics. It's a true story.

Most crazy people are really crazy but there is always some truth in there too.

I have always had a lot of respect for creative people, for artists. You'll find brilliant minds in all situations. I was in jail a lot for traffic tickets. One day in jail the guy in the bunk below me, after listening to him for an hour, it was just unbelievable. He repeated in a straight row, never hesitating once, every vegetable. Everything you could ever imagine that you can eat. It was like.....peas......carrots.....and it just kept going and going and going. You never

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perspective of it and then I can make it complex. But in reality it's just too easy. It is just the most basic thing there is. The difference is that there are over five billion people and there is one of me and I claim to be the right one on this.

- Well we'll see what we can do to help people understand what it is you are talking about. Then maybe you will not be the only one.
- 2. There will be a whole new mental contemplation.
- . A new reality. We were talking about the Aetheric Template, the Morphogenic Field and the Third Helix. What is the Double Helix Groove?
- In DNA you have a double spiral helix and if you look at DNA they show arrows along it. Where the energy flows or spirals in two directions, counter directions. Now it is so conspicuously apparent and obvious to me but people typically don't observe it. In between DNA there is a big gap space that is equal or greater in width to the DNA helix. The DNA helix is sometimes called the DNA Backbone or Spline and they are kept separated and apart by this Major Groove, which is an empty space. To this space applies the saying, nature abhors a vacuum. It turns out that DNA is made out of phosphates and phosphates are always known to have a negative electrical charge. It is also known that what's always going to be associated with any negative electrical charge is a magnetic field. Now only I know that a magnetic field is centered in the center of electricity. And in the center of the magnetic field is always, what I call, an Aetheron Flux. A Flux and a Field always come together. They are inseperable as far as occuring at the same time frame, moment, activation of occurence. They always occur together. Interestingly a Flux represents a super pulse emanation. A particle emanation. However, it is above the known elements and it is above what the senses can perceive. The Flux is the only thing that does not bend. It is a linear straight emanation. The Field is the only thing that can respond fast enough and quick enough to give slippage and free play to the Flux Iby traveling in the reverse direction. When you have one part Flux you are always going to have a two part reaction that is instantaneous and simultaneous responding. It's like with one knife cutting a piece of bread in half, you are always going to end up with two seperate pieces. Everything moves and exists because of the Flux. If you were to take the Flux away the universe would instantly become destitute and void

The world of our Third Dimension is the world of vibration and motion of matter, of mass. Everything is on a third dimension; light, water, electricity, matter, planets, solar systems, that is all third dimension. Anything that is concrete. Everything is curved and warped. That is the basis of Relativistic Einstenian Physics. It is called a curving universe. But just as a jungle vine

four sides are a perfect diamond. In the past the diamond represented perfection or attainment or the vortex. All knowledge is represented by the number 9. It's the zenith. Totality, completion, all wisdom. The numbers 3 and 6 represent the Magnetic Field. 3 and 6 do not connect at the base, they do not make a triangle. They connect at the 9, they make a vector. It is very important that the 3-9-6 are not three sided. All the knowledge of past and present, of all of mankinds future is contained in that diagram. That is why I refer to it as God's petroglyph. Everybody is looking for proof of the existence of God. That symbol is God's thumbprint. That symbol explains all the knowledge of spacial orientation in architecture and three dimensional space. That symbol explains all the knowledge of celestial mechanics. The symbol of enlightenment explains creation. The symbol of enlightenment explains evolution with the morphogenic field. It shows that there is an all coherant Divine Intelligence guiding evolution. So when people say they believe in evolution, the evolutionary

- They have not progressed with that idea.

theorists are still wrong.

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- Exactly. Evolution is not random, haphazard, trial and error. It is called predeterministic. In other words we have a deterministic universe. We have deterministic evolution and we have deterministic chaos. In other words chaos is self organizing chaos.
- My step father knows that guy who came up with the chaos theory.
- Well your work some day, when you write this all up, I'm sure will be reviewed by all of these people. It will help them progress in their research as well.
- I can definitely see how this work is co-creative. Everyones information helps everyone else in some way. I would like to go back to the DNA Groove.
- DNA also has what is called a Minor Groove. This is where the two backbones abut together on their outskirts. There is a Major Groove on the inside, the Major Groove is always on the inside. The Minor Groove is always on the outskirts where the backbone abuts. On the inside, that is called the Inversion Seam, it is along the axis. That would be like the hair line from your bellybutton up to your chest, that would be the Major Groove. That is the Inversion Seam, although it seems to be a solid. The Minor Groove would be like your back where your spine is. One is going inwards, the other is the outskirts. The best example is when you look out from a spaceship down at earth and take a photo of a tropical storm. You see two hurricanes whirling. On the outskirts where they touch and abut together, that would be considered the Minor Groove. The classical term is the World Boundary Condition. It is also called a shear.

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approximates what it is modeling. This is an exact form of modeling, it's not just a rendering. It is a perfect representation digitally of diseases. No one has ever been able to digitalize disease before.

- How can it do that?
- R. Because this is a numerical system that actually models the surface topology and assigns a numerical correspondant, as well as a temporal, spacial and volumetric relationship. As well as to all the chemicals. It accounts for all the missing ATP energy that is unaccounted for in these metabolic, chemical interactions.
- What is ATP energy?
- . It is kind if famous that there is unaccounted for energy that occurs in these processes. It would take more of a molecular biologist to expound on that particular point. (Oscar) So thus the displacement and the distention of these backbones is because there is this higher dimensional Flux Field, otherwise they would collapse on themselves. This displacement and distention of this Flux Field actually imparts an angle and a ratio to the DNA Helix. This then in turn results into a matrix and a lattice structure of the DNA. That is how I can digitalize all of DNA.
- Does this fit with the Golden Means number too?
- The Golden Means number and every other way we calculate things today in math is wrong. Because it is all two dimensional and there is no two dimensional in geometry. This is the true Golden Means but this is a different type of Golden Means. This is a Golden Means that expands and contracts from the center of math based on the Inverse Square Law. So with this Golden Means I can model accurately the conservation of energy in numbers, digital numbers.
- Then it is considered three dimensional not two dimensional?
- Correct. In reality the Flux Field is not on the Third Dimension. The Flux is omni-fourth dimensional. The Flux is Omni-dimensional and the Magnetic is the Fourth Dimension. The 3 and 6 represent the Magnetic and the 9 represents the Flux. So the 3 and 6 are Fourth Dimensional numbers. Again no one has ever done this before, said what number is on what dimension. The 9 is Omni-dimensional. The 9 represents the Axis or the Spindle. It represents one Aetheron Flux Super Particle that is traveling linear. The 9 is again Omni-dimensional which would have been the Fifth Dimension but I don't refer to it as the Fifth. I refer to it as Omni, Omni-fourth. The Omni and the Fourth always occur together as one

and Yang. They are perfect opposites. When 3 doubles it becomes 6. When 6 doubles it becomes 12, but 1+2=3. When 12 doubles it becomes 24, but 2+4=6. Then 24 doubles into 48 and 4+8=12 and 1+2=3. 3 and 6 are always in dancing motion by oscillating back and forth in resonance with one another. It's that they syncronize in resonance that they actually work. That is why they are the same polarity charge. Both positive when 9 is negative, and both negative when 9 is positive. 9 is the control. That is the secret of the number 9, it is the control. Now 3 and 6 thus never come alone without the 9, but they are the Yin and Yang. Everyone today is wrong that think the Yin and Yang is two parts. Everything is a minimum of three parts with the third part being invisible. In the Yin and Yang the third part representing the 9 is the S-curve in the center. In the symbol of enlightenment we can clearly see the number 9 by it being at the crown, at the zenith above the 3 and 6. The other two family number groups besides the 3-9-6 is the 1-4-7 and the 2-5-8. A family number group is always separated by 3 and 6 because they are the furthest most extremes. 3 and 6 are also identical with anything that is polarized; female-male, Yin-Yang, black-white. Duality. Although it is really a trinary, 3 and 6 have a focal center. So they are always worshiping the 9 which is God, as far as it represents perfection. God's the fashioner, the creator. The supreme being is not incomplete, there are no omissions and there is no redundancy. Since God did not leave creation nothing is omitted; not even to the grain of a mustard seed or the black part of the eye of an ant, nothing is missing. The nature of the 3 and 6 is to be in syncronization. So I do not agree with the principal that male and female are either negative or positive. I look at it like if two people are having sex, it isn't that opposites attract, it's rather that syncronization attracts. If they can syncronize together and create what I call a healthy rhythm by pulsing together or resonating together. Then they are in what's called harmonic cascadis. They are harmonically syncronized.

Now winding a coil based on the symbol of enlightenment, which is based on my Toroid Map, the Dandelion Puff Principal Toroid Map, we get a syncronized electricity out of it. This is a form of pulse direct current. That is my discovery. That is my invention, this new kind of electricity which is even being conducted in the DNA Helix Backbone, this syncronized electricity. Electricity is on the Third Dimension and it always follows and moves along the doubling circuits. The doubling circuits are made out of the other two family number groups of 1-4-7, 2-8-5 and they are always interspersed between one another. So you always have every other number of the opposite family number group. You have 1, then you go to the second family number group -2. Then you have 4, back to the first family number group. Then 8, the second. Then 7, the first. Then 5, the second family number group and back to 1 again. You know how I got the 7 after the 8 and the 5 after 7? Because 1-2-4-8 is doubling. Then 8 doubled becomes 16 and 1+6=7. 16 doubled is 32 and 3+2=5. Next 64 is 6+4=10 and 1+0=1. 64 doubled is 128 and 1+2+8=11 and 1+1=2. 128 doubled is 256 and

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electron microscope or in what can be seen with crystal spectography(?). I can magnify things using this numerical imaging system. I'm the only person who knows how to turn numbers into actual visual images. To digitalize those numbers back into a geometrical shape. Numbers represent geometric spacial, temporal locations. That is because in the symbol of enlightenment, in the doubling circuits, the polar number pairs are each in a different position to one another vertically. They do not align over any other numbers. While they align up horizontally they do not line up vertically. They horizontally line up into three different rows. Each one of those rows represent one of the unique X,Z and Y axises of a non-quartesian coordinated system. The quartesian coordinates system we have today is man made.

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to a discrete number it would be 2,4,6,8,1,3,5,7,9. Of course the last number before 9 was 7 so you would go across horizontally to it's mirror or polar opposite 7 and the 7's are 1x7=7, 2x7=14=5, 3x7=21=3, 4x7=28=10=1, etc. So you get 7,5,3,1,8,6,4,2. Always mirroring like a mirror lake. The base ten system has nothing to do with our having ten fingers, because we don't. Our thumbs are apposals. It comes from halving. As we follow the doubling circuits we have 1, 5/10, 25/100, 125/1000, 625/10,000, 3125/100,000. So this explains everything that exists and why, but accurately with out man made superstition. Not representational numbers but actual numbers. I call them Organic Numbers. This is an organic math. No one ever thought that numbers have qualities. This is showing that numbers have actual physical attributes that are fundamental to their existance, with no ommisions and no redundancy.

- 5. Do you have attributes to other numbers like 2,4,5,7?
- R. Their attribute is their phasing. The relationship of the family number groups and how they are organized in relationship to the other family number groups. This is represented by whether it is a X,Y or Z cross section circle of an axis. So the fundamental attribute of 2 is going to be a Z axis. 1 is going to be a vertical axis.
 - It is always going to be like this?
 - It is always going to be at right angles to the other numbers. The other X,Y,Z axies.
- What about a value like 9 is creator. How 3 and 6 have a definition of being complementary opposite polarities.
- . Complementary to themselves.
- Do the other numbers have a definition like that?
- Yes they do, but it is very sophisticated. I think about that all the time. I never discuss it with people because it gets a little over their heads. When that relationship comes into play, it comes into play in the Nested Vortices. In each Nested Vortices you will never have all three family number groups the same. For instance, 2 to 1 will always be the ratio. There are two different kinds of Nested Vortices, one is positive and one is negative. This is actually how everything occurs in chemistry, in molecular bonding. In a Nested Vortex you will have a minimum of nine numbers, 1-9. For 1-4-7 it will be a positive 1 and 4 and a negative 7. Or reverse 2-5-8; positive 2 and a negative 5 and 8. Or negative 2 and a positive 5 and 8.



2

EDITORIAL DEVELOPMENT

u se naski	The Emmel Book	The Nelson Glossary
Research	7,500	5,000
Writing (Advance against Royalties)	25,000	10,000
Travel & per diems	10,000	5,000
Editing (text)	3,000	3,000
Illustrations (acquisition)	5,000	7,500
Design & Typography	5,000	5,000
Honorariums for consultants @ \$500 per eminent scientis	st 5,000	2,000
TOTALS	\$70,500	\$37,500

PHYSICAL PRODUCTION

PrePress (from \$20 to \$60 per page for film and proofs). We will approach other major sponsors to assume these costs, e.g. AGFA, IBM, XEROX, etc.

PRE-PUBLICATION PRINT RUN

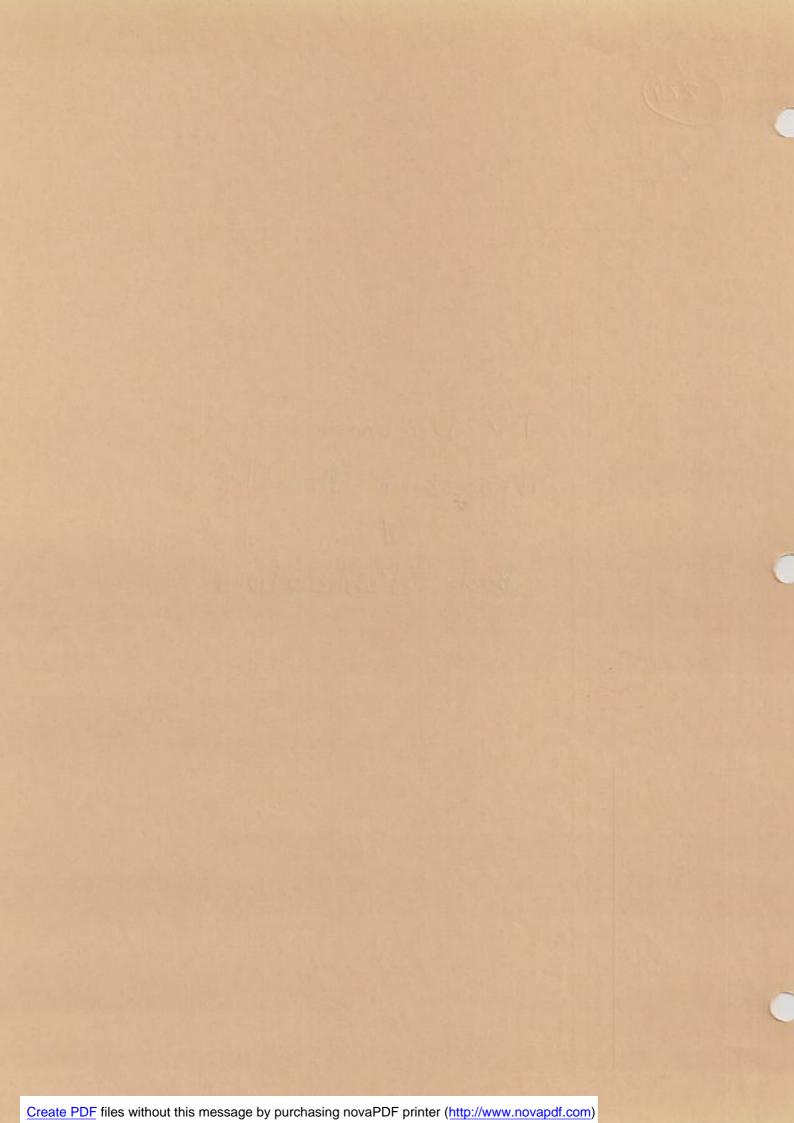
500 Review copies at approximately \$4.00 each. The book on CD-ROM at approximately \$3.00. Mailing, distribution, follow-up correspondence \$3 to \$5 each.

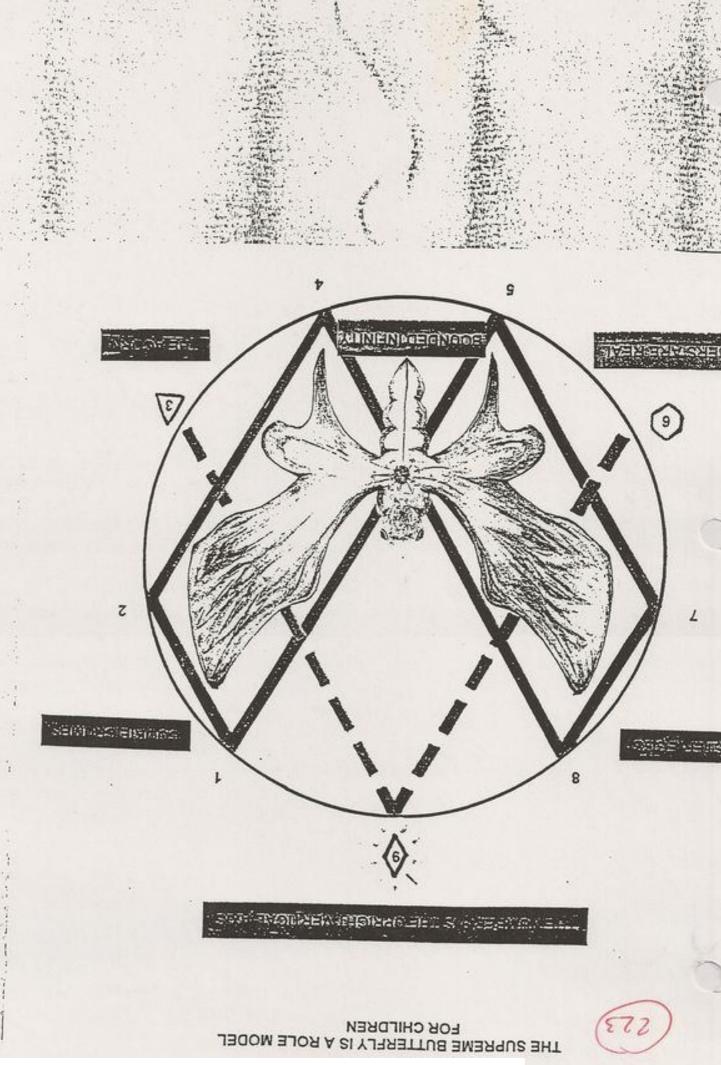
MARKETING (national) \$20,000 to \$50,000

The unconventionality of this subject matter may be unacceptable to the mainstream. On the other hand, the new vistas it opens up may attract large numbers of people, e.g. the highly esoteric book CHAOS THEORY became a N.Y. Times Bestseller. The decision about how big, and which, markets to reach will determine the costs.

It is important to actively reach out to attract additional funding to support the marketing and promotion of this project. These would be companies interested in

Please 30 to the next page...









Dear Dr. Earl Bakken,

This letter is to propose the collaboration of Marko Rodin, Eric Ewing and myself, leather Smith. We wish to create an elementary school level curriculum based on Marko's ork.

It is my pleasure to have become acquainted with Marko Rodin over this last year. As have learned of his work it has become clear to me that I have stumbled across a rare and

inique opportunity to change the world in a positive and profound way.

Until now we have believed the matter of creation to be dead, without consciousness or intent. We have seen matter as just some random chaos haphazardly becoming coherent. low, through Marko's work, we can see there is a basic and vastly intelligent consciousness at the heart of all creation, that is very much alive. Marko has mathematically proven and conceptualized the invisible link between all things in creation. He can show us the elationship and interplay of the invisible with the visible. Because of Marko's work we can no longer deny that our every action affects everything else in creation.

Because we do not understand this intimate connection we are destroying ourselves. We have told ourselves that technology can save us, can solve any problem. We have failed to recognise however, that technology without HEART, without the understanding of the interconnectedness of all life and the inherent intelligence in nature is the very thing destroying us. We can not go back in time and erase the technology that we have created. Nor can we afford to ignore what indigenous peoples have been trying to tell us all along. That we are intimately connected to the earth and all that is. Harmonizing technology with the needs of the earth and consequently us as humans is paramount to our survival. I have always yearned to find a way to make this possible. Marko Rodin's work makes this a

reality in a way not imagined before. The understanding of spirit and matter is my life passion. Understanding how energy moves through and transforms the human being in mind, heart, body and spirit is my greatest interest. My deepest knowledge of spirit and matter has come in comprehending the process of transformation of fear and pain to love. I have done this through healing myself of asthma. I have spent the last six years keenly observing the interaction of thought, feeling, action and experience. Their interplay directly reflects and effect ones physical well-being. I have intimately come to know how all things in creation are connected. I experience spirit and matter as one. The personal transformation gained from this insight has changed my life in a profound and positive way. It has charged my impetus to share what I have learned with others, especially children.



From: Eric Ewing 5554 Fairview Pl. Agoura, CA 91301

Beginning Stages

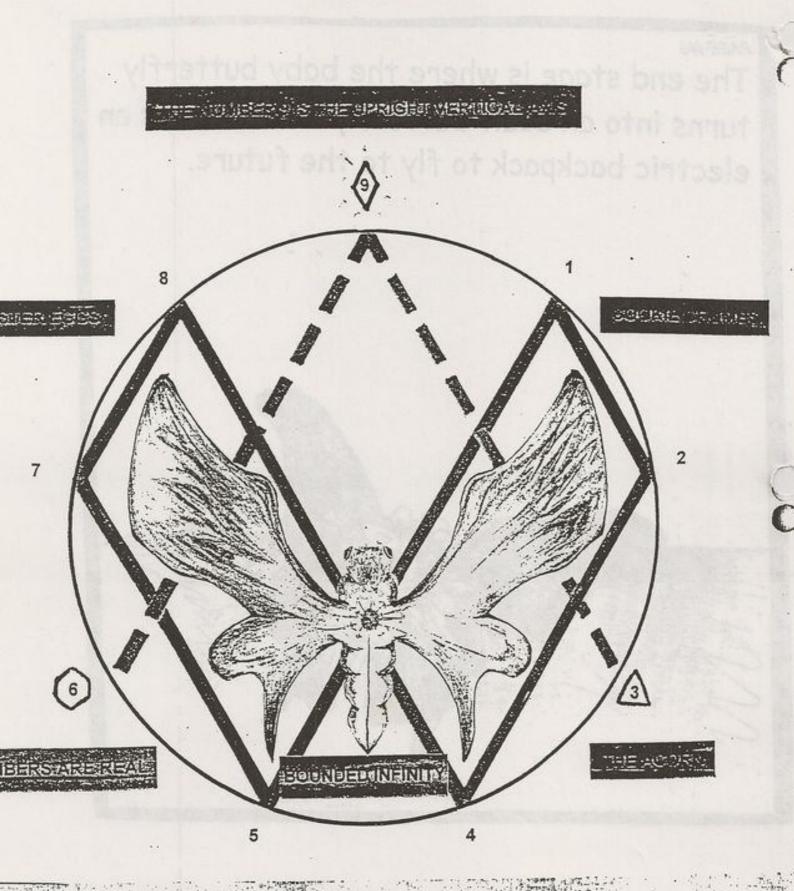
- 1. Each page will have a progressive caterpillar as the student progresses.
- Once the children capture the basic concept of the mathematics the caterpillar changes into a baby butterfly.
- 3. The cocoon will represent a quiet place where the children can study and meditate on the concept. Throughout the whole study book, it should revolve around nature, for nature is the essence of life. There will be different colored butterflies according to the different ethnic groups. Also male and female butterflies. There will also be a large variety of butterflies to choose from to suit their needs. All butterflies are environmentally conscious. They all carry magical electric energy.
- 4. The caterpillar stages all the way up to the butterfly stages will have the Holly Spirit or Infinite Intelligence in the center of the butterflies head until they grasp the full concept of the mathematics on the kid level.
- 5. We have to stress healthy eating habits, because good nourishment is good for the mind. Everything needs to be grown naturally from the good earth where the caterpillar originated. How can you be a productive butterfly without a healthy diet?
- 6. The baby caterpillar can travel in progression on a dingy and realize that some days are rough at sea and some days are calm. That's all part of the learning process, because its not always easy! Neither is nature, nothing is perfect except for God. Always strive for perfection, because God made us in his own image. We are perfect only according to how we take care of ourselves.





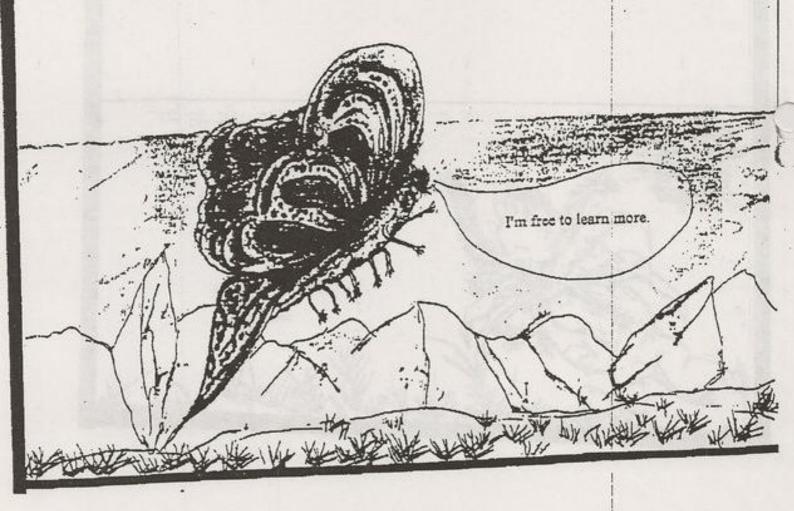
THE SUPREME BUTTERFLY IS A ROLE MODEL FOR CHILDREN







Once the baby butterfly breaks through the cocoon barrier, he will start to fly to a new level.





The following six pages are a page to page illustration of the caterpillar progression.

PAGE #1 I hunger for the knowledge of growth. Feed me knowledge.





From: Eric Ewing 5554 Fairview Pl. Agoura, CA 91301

CHARACTER LIST 21 JULY 1998

- 1 is <u>Fun Fun</u>, because for in the beginning it is fun because they start their winding process to success.
- 2 is Lou Lou, Lou represents keeping the guidelines silly so the children won't feel like there's a lot of pressure in the early stages of learning.
- 3 is <u>Tweety Dee</u>, the Tweety Dee bird represents a bird which flies the coil winding around in a toroidal motion.
- 4 is Morris, meaning more ongoing current flow or repetitive motion.
- 5 is Alive, meaning a live wire connecting two points together for making electricity.
- 6 is Kicks representing having a kick, in essence a shock of electrical flowing force.
- 7 is <u>Heaven</u> because it's revolutions are almost completely around the circuit of life. Heaven can be an incentive to achieve the highest possible. Heaven is omnipotent, it's everlasting, it is everything that is good.
- 8 is <u>Create</u>, representing creation, something that has been created. The end result, perfection. Once the final stage has been achieved. The coil is all one unit, creation.
- 9 is <u>Fine</u> because the coil wire is so fine, fine is divine. <u>DIVINE FINE NINE</u> never divides. It always stays the same.
- 0 is Not, because it doesn't exist, yet here it is, doing all sorts of amazing math stunts.

NOTE: THE MORE THE NUMBERS INCREASE THE QUICKER THE CHARACTERS MOVE IN SPIRALS.



From: Eric Ewing 5554 Fairview Pl. Agoura, CA 91301

Beginning Stages

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February 1988

Marko Rodin Toroid Aerodynamics, Inc. P.O. Box 245 Lihue, Hawaii 96766 Tel. 1 808 634-5344

Dear Educator,

We are developing a teaching curriculum, teacher's training guidebooks, children's text books and The Toroid Aerodynamics School Program to re-envision math/science education in the schools of Kauai. Vortex Based Mathematical Learning teaches children to be pilots of the universe as it is the basis for understanding the working of the cosmos and the creation dynamics of natural systems. Vortex Based Mathematical Learning is the living foundation from which springs physical sciences, biology; colors, sound, mechanical engineering, chemical engineering etc. This material is applicable for all ages from elementary school through post-graduate levels. This program fully engages children in a new learning style that teaches them how to think rather than by rote memorization. Once the principles are learned, it inspires children to translate their experience into new models for discovery and invention.

Enclosed you will find pictures of the work with explanatory captions and a sample summary of testimonials from schools and individuals who have participated for the past sixteen years in Vortex Based Mathematical Learning.

Parker High School
Punahou High School
University of Hawaii at ManoaHawaii Pacific University
Seabury Hall of Maui.
McKinley High School

Aloha Nui Loa,

Marko Rodin President

Toroid Aerodynamics, Inc.

Markskodin

in very excited to understand and explore the implecations this reality, it our role as to-king indestanding the sel many directions · 40 50 W 1. Look forward to exploring ready to go to work ps. my man who is definately math person watched t me and wanted ince to te had no problem following in were explaining. My step dad wanted me to tell old move with Sean conner was it called? He said now to pobably the only people who re that move exists let alone that both love it 1 HA HA HA



I will usually be able to stay wih friends

OTHER: Fax/phone bill

\$300 monthly = \$3,600 annual

TOTAL \$96,390 annual

Each of these figures represents a maximum amount and is likely to be considerably less

Children are our future. We owe it to them to prepare them for the challenges of the future in the best way we can. Though energy is complex it can be made very easy to understand. I want to share what I have learned about energy in a way that is simple to comprehend. With six years of study and one year of teaching basic energy awareness classes to ages 13-50, I feel qualified to explain Marko's work in a simplified version.

At this time the public school system gives no understanding of these concepts. No understanding is given of the connection between spirit and matter and our intimate connection with the earth, or how this relates to us personally. Public schools do not have the materials to teach and give comprehensive and experiencial understanding. we wish to collaborate in explaining in detail the frontier knowledge that Marko's work entails. His work can do this. This program will include a series of books, games, activities, workbooks, worksheets and teacher guidelines. We want not only for the students to understand through classroom environments but, in real life experience as well.

The first childrens book has already been started. This book outlines the entire curriculum through it's story. Our goal is to finish the storybook and completely cover the accompanying materials, including the teacher's guide, games, activities and workbooks for the first grade level in one year. I will be contributing my efforts in terms of expanding the text of the storybook as needed and writing accompanying materials. I will simplify Marko's work so that a first grade student may begin to open to an understanding of the energy around them.

The following pages gives the estimated overhead and wages I need for full time work

over one year.

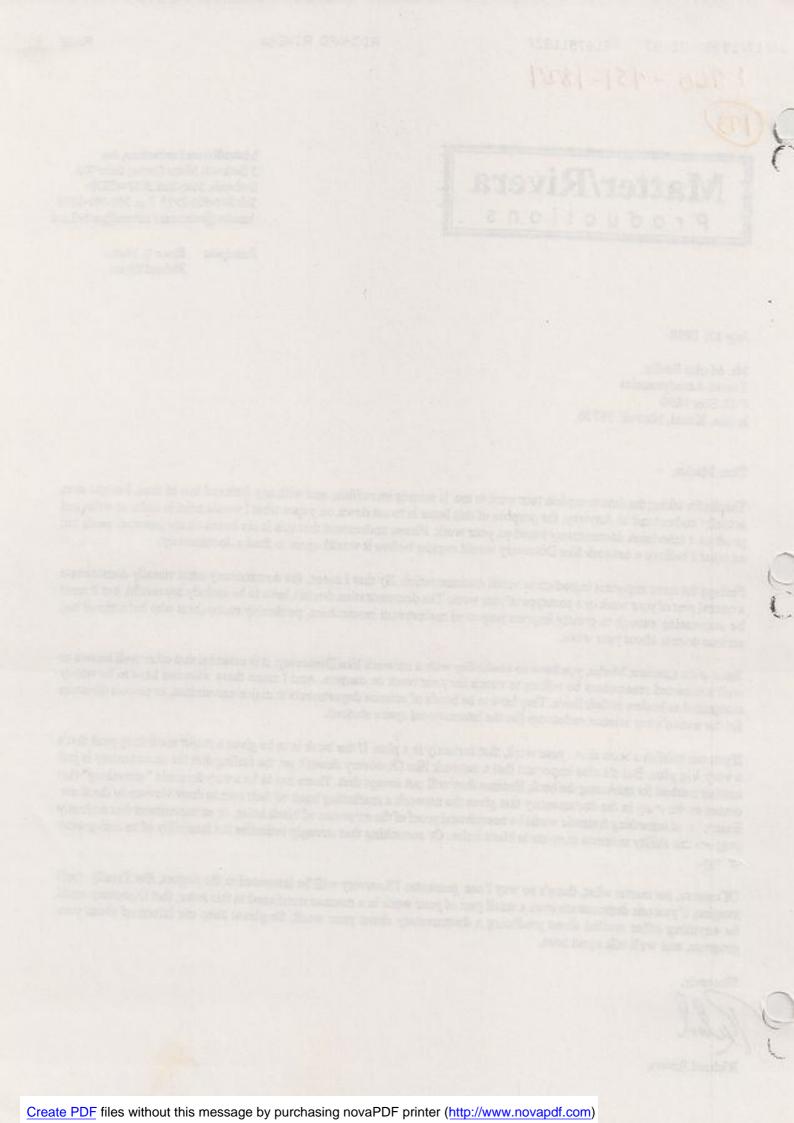
I have unbounded enthusiasm to created these materials in collaboration with Marko and Eric. It would be more gratifying than anything I could think of to be able to contribute in this way. To pass on a worthwhile understanding of this to our children is my greatest desire and responsibility. I hope you, Dr Farl Rakken, will find it worthwhile to enable this collaboration through your financial support.

P.O. Box 734

Miranda, Ca 95553

(707) 943-3678







me as it is not my intent to financially insult you. I make this point as a gesture to frugal business practices. It is my personal desire to see that any financial assistance that might be made available to this project be maximized to the utmost exposure of this information.

The basis for financial consideration is that a simple video production, an interview or cooking show, at current commercial rates runs approximately US\$35 - 50,000.00 per 1 hour finished product. Technical tapes as per this project quickly escalate as computer graphics and/or animation are added. Add another US\$5 -15,000.00 average per 60 second increments. These segments are yet to be edited into the finished product. The multi-discipline application of the toroid at minimum would require no less than 10 one hour video productions. The normal financial ramifications can be multiplicatively deduced.

As Marko is capable of verifying, my purpose has been and continues to be video documentation and historical preservation of this project to the benefit of mankind and the protection of Marko. The advantage to you in my participation is that I am capable of and willing to function in a number of disciplines that would normally require more personnel and resulting in a far greater financial outlay. Without question, electronically communicating this information is of utmost importance. To these ends and in practical reflection of financial ramifications, I offer my services at a nominal level in that the funding is made available to provide equipment, services, and materials that this project is in fact successfully recorded and shared to the benefit of mankind.

For and in consideration of services rendered, 1) I propose a flat fee of \$5,000.00 per month plus medical package, two year commitment with a year to year extension if necessary; 2) \$5,000.00 moving expense based on economy; 3) I require a mutual agreement that I work a flexible schedule with a Friday/Saturday Sabbath observance; 4) Travel expenses to include studio work in Honolulu at Oielo; 5) Stipend and hot meal for studio crew; 6) Equipment requirement of SVHS and 3/4" production capacity. Audio library; and 7) a clear understanding that I am a single parent of two small children.

Thank you for allowing me the opportunity to present this proposal. I look forward to your response.

Sincerely,



Costs Breakout and equipment list.

\$5,885.00

\$485.00

\$500.00

Editing Gear:

Computer CPU: Apple Macintosh

G3 MT/266/96MB total ram/
6mb VRAM/keyboard, 24XCD
18GB single channel array w/ Ultra card
Adobe Premiere Editing software:
Firemax Video Card

Sony Betacam SP recorder/player
UVW-1800: \$7,995.00

Camera Equipment

Sony DVX -1000 digital video camera \$4000.00 includes some accessories.

Tripod Bogen 3046 and 3063 fluid head and legs: \$295.00

Light Kit \$500.00

Additional Costs and options:

Note: estimate an addional \$5000 for extras and \$5,000.00 options

Digital Effects Software(Boris Effects)
Adobe After Effects(animation)
Infini-d (animation 3D)
Tape Stock
Batteries
Filters
Microphones

Total Investment \$24,660.00



Marko Rodin P.O. Box 1690 Koloa, Hawaii 96756

July 22, 1998

Aloha Marko,

Here is a cost break down for the completed production and editing, plus estimates for proposed editing to complete the project - 4 to 5 hour-long videotapes, 10 minute promo and various :30 and :60 second spots.

Production costs: (to date)

\$ 3,900.00
\$ 735.00 5 800.00
\$ 5,435.00

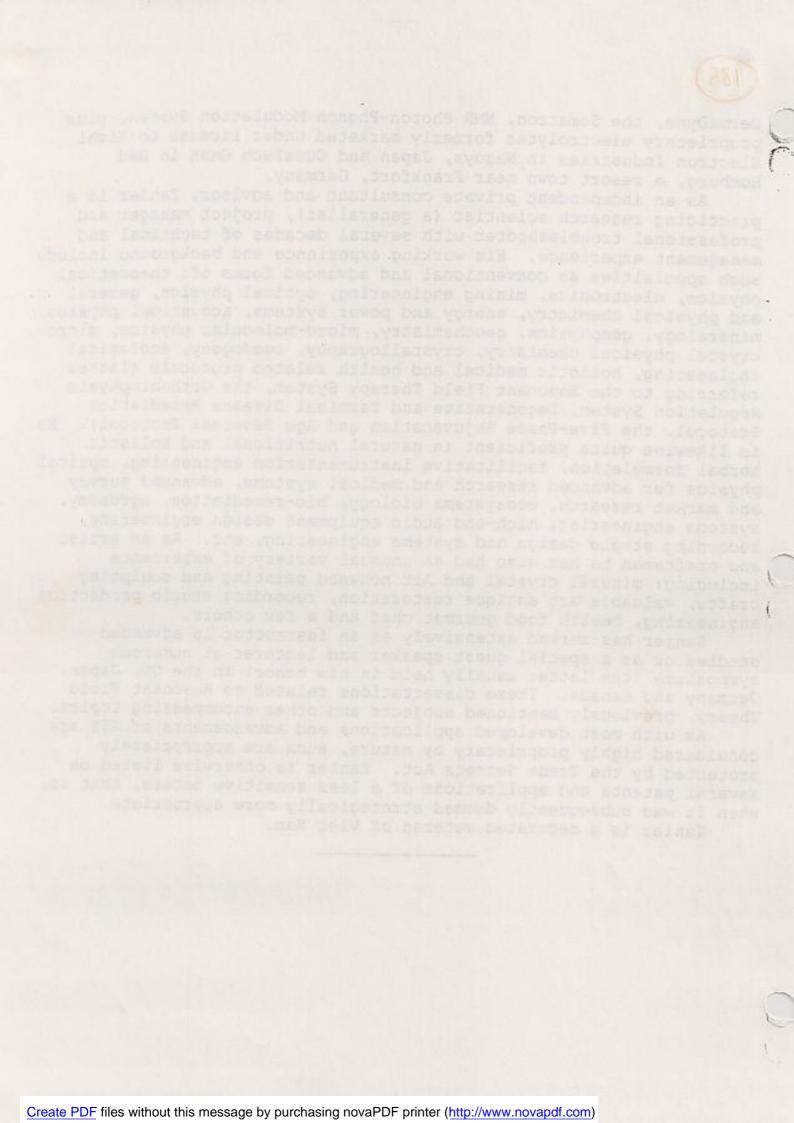
Proposed editing costs:

Offline and Online editing with graphics, effects, etc. 250 hours offline editing - Media100 @ \$ 50.00 60 hours online editing - Media100 @ \$ 100.00 30 hours computer graphic design @ \$ 50.00 Tape Costs	5 12,500.00 5 6,000.00 5 1,500.00 5 1,200.00
Tape Coop	5 21,200.00
	TOTAL \$ 26.635.00

It's been a pleasure working with you on this project, and I look forward to finishing it up. It is a major contribution to the world! Aloha and Mahalo.

Bob Stone
Stoneman Productions
171 Maha Road, #S
Makawao, Hawaii 96768
(808) 572-5823 Phone
(808) 573-0663 Fax
E-mail: stoneman@maui.net









Waal's forces' relating to amorphous, morphogenic and delimited microcrystal and microcrystalloid engineering, micro-cluster engineering, micromolecular entrainment engineering, micro-encapsulation engineering and quantum field resonance engineering), which have commercially exploitable applications to structured water, programmable fluid media, health and medical industry formulas, catalytic processes, chemical engineering, etc. Zanier has brought the state-of-the-art of Micro-Crystalloid-Technology (MCT), Micro-Molecular-Crystalline Technology (MMCT), Quantum Field Resonance Coding Technology (QFRCT) and Microstructure Technology (MST) through three generations' of commercializable laboratory evolution (a generation beyond that of competitive research in this field) to a point at which otherwise unstable liquid van der Waal microcrystalloid events are not only "programmable" phenomena, but show long term stability under certain environmental conditions.

An additional offshoot of RFT led to singularly important advancements in physiotherapy (97.5% level of clinical efficacy) electro-medicine with the inventions of the Zanier SomaDyne, Zanier

designated by Zanier as the Author of Resonant Field Theory as Micro-Crystalline Technology [MCT], Microstructure Technology [MST] or Quantum Field Resonance Coding Technology [QFRCT]. MCT and MST formations being van der Waal phenomena, are similar in function to Homeopathic preparations in that an active chemical ingredient under most circumstances is not actually present even in trace amounts, when it is formed in liquids such as water or alcohol. In all cases the energetic influence of that agent is quite capable of being expressed. Whereas, the "cousin" to MCT - the simple to produce homeopathic pharmaceutical preparation - is limited to applications to produce homeopathic pharmaceutical preparation in limitations are due to high sensitivity to various instability factors. Whereas, MCT/MST and their competitive counterparts by these and other titles that involve either generating sub-micron (nanometer) crystalloid, micro-cluster or molecular chain formations also in common (nanometer) crystalloid, micro-cluster or molecular chain formations also in common (nanometer) crystalloid, micro-cluster or molecular chain formations also in common (nanometer) crystalloid, micro-cluster or molecular chain formations also in common (nanometer) crystalloid, micro-cluster or molecular chain formations also in common (nanometer) crystalloid, micro-cluster or molecular chain formations also in common (nanometer) crystalloid, micro-cluster or molecular chain formations also in common (nanometer) crystalloid, micro-cluster or molecular chain formations also in common (nanometer) crystalloid, micro-cluster or molecular chain formations also in common (nanometer) crystalloid, micro-cluster or molecular chain formations also in common (nanometer) crystalloid, micro-cluster or molecular chain formations also in common (nanometer) crystalloid, micro-cluster or molecular chain formations are due to high the product of the crystalloid in the crystalloid in the crystalloid in the crystalloid in the crystalloid in the crystalloid in

The van der Waal's forces are those forces that are brought about with the affinity that the nuclear charge of one atom has for the electron cloud of a neighboring atom, especially when the two atoms are in very close proximity to one another as in the formation of a covalent chemical bond. As energy is being another as in the formation of a covalent resonance states to the associated transferred from one covalent bonded atom's nuclear resonance states to the associated atom's electron cloud, a state of dynamic equilibrium is eventually reached which is associated with their energy differential. In accordance with Monte Carlo calculations, various atomic configurations, each having predictable dynamic and static charge distribution patterns, can coexist during a state of equilibrium, especially as when hydrogen bonds are involved.

The Third Generation of MCT may be referred to as relatively stable designer microstructures. Whereas the Fourth Generation of MCT (also MST) addresses the synthesis of these programmed nanometer size range microstructures from universal "designer" building block ions and molecules, much like a child building a free form "tesigner" building block ions and molecules, much like a child building a free form structure with an erector set. The Fifth Generation of MCT and MST deals with increasing energy and stability levels (through the use of QFRCT principles that also effect subatomic properties) such that stability and catalytic activity, regardless of most severe environmental conditions that may be encountered, is likewise programmable.



BIOGRAPHICAL SKETCH

Loren P. Zanier (403) 990-1166

ABSTRACT:

Zanier is a highly innovative and low-profile independent consultant involved with research and development sciences, and is an international lecturer and educator on a variety of technical and social subjects primarily for the Loren Zanier ZFH Research Management Trust of Florida, USA and S.B.D. Group International, Inc., Edmonton, Alberta, Canada. Although primarily self educated, as a child prodigy he authored a little known, now rather controversial, advanced theory in physics and biology otherwise known as Resonant Field Theory. This theory has an uncommon variety of proprietary and nonproprietary applications of immense potential for the applied physical sciences and arts. This includes energy translation systems, alternative medicine, ecological and ergonomic engineering, micro-crystalloid technology (which significantly improves the potency, efficacy, versatility, application and cost effectiveness of health related consumer and industrial chemical agents alike), etc. The intrinsic commercial and social value of a number of his prolific innovations, without exaggeration cannot be overestimated. Zanier has been described as a well rounded, yet focused, extraordinarily inventive and intuitive Imagineer (spiritually aware artist, craftsman, scientific researcher and innovative technologist, consultant and healer]. He is a well traveled, semi-retired, U.S. citizen and war veteran.

PROFESSIONAL BACKGROUND HISTORY:

Mr. Loren P. Zanier (age 52), is a well traveled, semi-retired citizen of the USA. He is a highly innovative and low-profile Independent Consultant with over three decades of practical working experience as a Sciences and Technologies Imagineer (imaginative yet productive multi-professional) in the private sector. He is currently associated with two principal clients: the Loren Zanier ZFH Research Management Trust of Florida; and for nearly a decade, also the Senior Advisor for Advanced Technologies & Marketing R & D for the S.B.D. Group International, Inc., of Edmonton, Alberta, Canada. The aforementioned Trust is the holder of Zanier's intellectual property rights. The S.B.D. Group International is an engineering consulting firm that develops and provides critical technical support services to licensed applications of properties that have significant environmentally friendly impact.

Formerly, Zanier was Chief Executive Officer for ZFH Research (Zanier's advanced technologies and market research consulting and troubleshooting firm in California and Oregon); Senior Technical Advisor for EOTECH (a geological and mining chemistry research and development firm in Oregon); R & D Executive Officer and Senior Scientific Research Director for BioSpectronics Technical Labs, Inc., (a joint venture R & D firm in California, Oregon and Nevada involved with proprietary applications of molecular-cluster templated water); SomaDyne, Inc., (a development firm of Oregon, California and Nevada dedicated to advanced medical instrumentation and related protocols, invented by Zanier); Exytren America, Inc., (a joint venture firm





Loren Zanier ZFH Research Management Trust

c/o 700 NE First Court, Hollandale, FL 33009 Trust Officer: Demarys Margo McGuirk

Mr. Marko Rodin TOROID AERODYNAMICS P.O. Box 1690 Koloa, HI 96756 (808) 634-5344

Loren P. Zanier c/o A. Spurkel 219 Satinwood Ave. Agoura Hills, CA 91301 (818) 706-3711

Dear Mr. Rodin;

Pursuant to our telephone conversation last week relating to the mathematical dynamics and potential scientific and social implications of toroids being of mutual interest; as requested I am forwarding this proposal for your consideration with the following inclusions: a concise plus detailed biographical sketch; a proposed guideline for a potential working relationship.

Your Priority mail package dated 6 July 1998 was well received on 10 July 1998 with inclosures consisting of your cover letter, various professional observation letters and three technical amendments/elucidations to your toroid manuscript already on temporary loan to me.

Owing to recent untimely exigencies that adversely effected any semblance of sane scheduling, it is very embarrassing to admit that these last weeks only presented an opportunity to conduct a cursory - rather than an in depth - review your materials deserve. What you may be interested to note however is that (allowing for typo and editorial errors that normally plague most technical manuscript drafts) in my considered opinion there is a high degree of consistency between the described toroid mathematical modeled fundamental principles and particular theoretical and applied aspects of Resonant Field Theory (RFT). This may be pointedly germane to the subject to hand. Having authored RFT in my youth some fifty or so years ago, this subsequently led to gaining valuable familiarity with the subject. Life seems to pass in a heartbeat, but with many amazing surprises along the way.

Such experiences permitted me opportunities to become familiar with diverse subjects while challenging the validity of RFT with varied applications including geometric formations. Namely, certain fundamental dynamic geometries, the toroid being one such essential item, are natural repeatable occurrences that pervade and orient both our multi-dimensional holographic reality and biological system dynamics alike. As the spacial dynamics of toroid forms exhibit internal, surface and external energy gradient properties each with a multitude of applications and understandings, it is freely admitted that were I to have devoted myself to this task alone in isolation (had I had the resources available to do so), it would have been a life's work in itself. Therefor, it came with both great pleasure and relief beyond words to discover that someone [yourself] had seriously pursued this particular subject, one with sufficient intuitive insight to appreciate and comprehend its implications. This intimate familiarity and dedication promises



to the final limit where the pressure of the particles that make up the geometry of the neutrons break apart and the quarks align, a tremendous increase in the amount of gravity is produced because the quarks are no ler bound by the geometry of the forming neutrons.

This would seem to indicate that when a superconductive collider -device is built, and if enough quarks can be produced at one time, then very slight gravitational effects could be detected with the proper measuring devices.

If the alignment of quarks is responsible for the effect of gravity, then Mr. Rodin's theory proses that there exists a "gravitational equivalent" to the electromagnet, which is the proposed workable model discussed now in greater length.

Two prototype coils presently being constructed by Rodinian Aerodynamics are a doughnut coil and a cone-shaped coil. The doughnut is more useful as a research tool in which measurements can be made, whereas the cone-shaped coil has the more practical applications—having the operating capabilities of a magnetic laser with the force blasting of the bottom.

The latent magnetism of the coil generates a much higher voltage with a variance of amperage affecting the force of the magnetism. The cone-shaped coil could conceivably levitate along its wound "inversion seams" with an interplay of all the induction currents--electricity, magnetism and gravity.

In the cone coil, the magnetism is in the center and along its exter with the coil being a voltage-multiplier, passing through one magnetic point. Inversion occurs only on the apex of the cone with the repulsion



Looking at the doughnut model from the top, the black hole spiral and is massively bigger than the white hole. In a spherical model such as this that spins, light behave totally differently; there are two distinct shapes to the hour-glass with the spin directing this and adding to the cohesion.

Electricity is spinning outwards and magnetism is spinning inwards in a white hole and vis-versa in a black hole. Magnetism has only one flow and always outward and somewhat pulsing. Anergy is measured in quantas, but magnetism in decas. Electricity is in quantas of 4's and has two flows; hence, the ratio 1-2-4-8-7-5 is moving in opposite directions simultaneously and in conjunction. A quanta of electricity surrounds a deca of magnetism with anergy being in the center-being the only "emmanation" going straight out.

The operative rules of flow are thus stated:

- 1) Doubling (instead of halving) is directional-flow;
- 2) The reverse flow between 3-9-6 forms the magnetic flow field; needing a 72-ring flow-chart;
- 3) If one takes any four numbers, the number in the center (see diagram) will have the same value;
- 4) There are two parts electrical to one part magnetism .

In the inversion line (see diagram) there exist vortices as well which operate especially on those principles which are contingent; with all spin-ratios having been expressed in numbers and not in abstract artificial conjectures.

There are forty nine-part module segments in an orb. There are fournine-part modules in each modulus ring in an orb. There are ten modulus rings in an orb equalling 100%. The numbers 1%8 are whole-spin with a Create PDF files without this message by purchasing novaPDF printer (http://www.novapdf.com) ring a vertical





The numbers 1,2,4,8,7,5 are electrical energy-spin continuii

of the third dimension based on Einsteinian physics of the curvature

of light. The inversion seam, which is always on a stright-line up and

down, demonstrately proves that as light goes out in a straight line,

it curves in 120° and 240° angles; becoming a positive-flow treadmill;

returning to the point of origin. The numbers one and eight are balanced

mirrored images of themselves which represent dynamic fluid matter-flow.

This is identical for the numbers 2 and 7; 4 & 5.

The axis of the number nine comes as a result of the unity point, which is the intersection vector of 5&1 and 8 & 4 . The lower the anergy band width, the higher the energy frequency band width.

Light moves in a straight line but with abrupt curved turns.

These angles never have a severed edge and are referred to as round interstices points. There are six curved bends of light to produce a positive-flow closed-loop cycle. The angles of each of these curved bends are 120° and 240°. The sixth curve bended at 120° and 240° angles are always in the form of perfectly parallel molecular folded lines.

The numbers 7&8; 1&5, and 4&2 are parallel wave-form motions as likewise are 2&1; 8&4, and 5&7. The phase transition occurs with each number. The numbers 1,7 and 4 are negative and the numbers 2,5 and 8 are positive, resulting with 1,5,7,8,4,2 being minus, plus, minus, plus ... and when reduced to a single integer always totals 3 or 6. This also means that these numbered sequences produce their own parity-mirrored sequence. (ie. 396693396693396693...). The number nine is the neutral intensifier of the centered momentum for the 3 and 6.

mechanism, a reactionless drive, is transmitted out the white hole-the second separate vortice--decompression.

Since the point of origin is intangible and neutral, we observe its presence in the perfect polarized binary opposites of the numbers three and six. (diagram below) These two charges are perfectly polarized in the form of a magnetic cone-shaped flux-field which oscillates to and frustriputal compression is the number three; centrifugal decompression is the number six; the neutral intensifier being the number nine.

The models exist on four dimensions. In the first dimension is a single point. In the second dimension you have the same single point, but it is cut in half. The diameter is counted in radius veneer degrees 360° being at the zenith; east being 90°; south being 180°; and west being 270°. The third dimension consists of the same single point now rotate around its axis with spin; applied here is the inverse-square law where the number one is the center of the inversion principle of multiplication or division. The number one doubled becomes 2,4,8,7,5... with the pattern repeated ad infinitum. Thus is born the electrical spin-continuum formula This ascending and descending modality produces the forward movement known as the positive-flow treadmill affect, with the third dimension based upon Eisteinian physics.

The fourth diminsion is based upon principles of quantum physics. As shown below, is an equilateral triangle of three parts; the base is not bridged between the polarized three and six but is connected at the zenithof the 360° angle. The other three dimensions are all identical directionally, with the fourth dimensional movement being in the opposite direction.





Low Cost Propulsion System Based Upon A Reevaluation of the Physics of Mat

The premise upon which this paper rests is based upon more than fifteen years of personal independent research outside the confines of a major U.S. corporation--Mr. Rodin's form of "backyard-physics approach" to the problem. Without elaborating, it owes its basic root conceptualizations to the study of the Aramaic culture in both its phonetic language and cryptic numerical forms.

Fundamentals of the Theory

Einstein's Theory of Relativity is based upon a fixed constant—
the speed of light. The leaving of light from its point of origin in a
line that has angular curved bends demonstrates that because of this
curvature "infinity" is not an endless amount of numerical integers
but rather a closed set—a positive—flow treadmill—continuum upon which
the spin—properties of atomic particles are based.

Mr. Rodin's system rests on nine "conditions" and because of a missing zero in this "decanary grid" the universe of atomic particles requires "quanta" to offset and put back into the center the nuclear unity point, for in the nucleus of every atom exist a black/hole-white/hole-white vortice effect, with motion being undestroyable and unstoppable with absolute freezing being nonexistant; elements never reaching absolute zero because they are always in percentage incremental margins of the original temperature.

The world of atomic particles is "inflated" and kept boyant by the "emmination" of the unity point. Emmanations of themselves do not rewhereas their eddy effects created are based upon an induction-gravity whereas their eddy effects created are based upon an induction-gravity.





Formal Systems and Reality

This is our first example of a case where a formal system is based upon a portion of reality, and seems to mimic it perfectly, in that its theorems are isomorphic to truths about that part of reality. However, reality and the formal system are independent. Nobody need be aware that there is an isomorphism between the two. Each side stands by itself—one plus one equals two, whether or not we know that -p-q— is a theorem; and -p-q— is still a theorem whether or not we connect it with addition.

You might wonder whether making this formal system, or any formal system, sheds new light on truths in the domain of its interpretation. Have we learned any new additions by producing pq-theorems? Certainly not; but we have learned something about the nature of addition as a process—namely, that it is easily mimicked by a typographical rule governing meaningless symbols. This still should not be a big surprise since addition is such a simple concept. It is a commonplace that addition can be captured in the spinning gears of a device like a cash register.

But it is clear that we have hardly scratched the surface, as far as formal systems go; it is natural to wonder about what portion of reality can be imitated in its behavior by a set of meaningless symbols governed by formal rules. Can all of reality be turned into a formal system? In a very broad sense, the answer might appear to be yes. One could suggest, for broad sense, that reality is itself nothing but one very complicated formal instance, that reality is itself nothing but one very complicated formal

instance, that reality is itself nothing out one very complicated system. Its symbols do not move around on paper, but rather in a three-dimensional vacuum (space); they are the elementary particles of which everything is composed. (Tacit assumption: that there is an end to the everything is composed. (Tacit assumption: that there is an end to the everything is composed. (Tacit assumption: that there is an end to the everything is composed.) The "typographical rules" are the laws of physics, which tell how, given the positions and velocities of all particles at a given instant, to modify them, resulting in a new set of positions and velocities belonging to the "next" instant. So the theorems of this grand formal system are the possible configurations of particles at different times in the history of the universe. The sole axiom is (or perhaps, was) the original configuration of all the particles at the beginning of time. This is so grandiose a conception, however, that it has only the most theoretical interest; and besides, quantum mechanics (and other parts of physics) casts at least some doubt on even the theoretical worth of this idea. Basically, we are asking if the universe operates deterministically, which is an open question.

Meaning and Form in Mathematics

Surprisengly:

- This elequently

described my

discovery

accurately

to a T.

NUMBERS ARE STATIONAR

VECTOR INTERSTIC

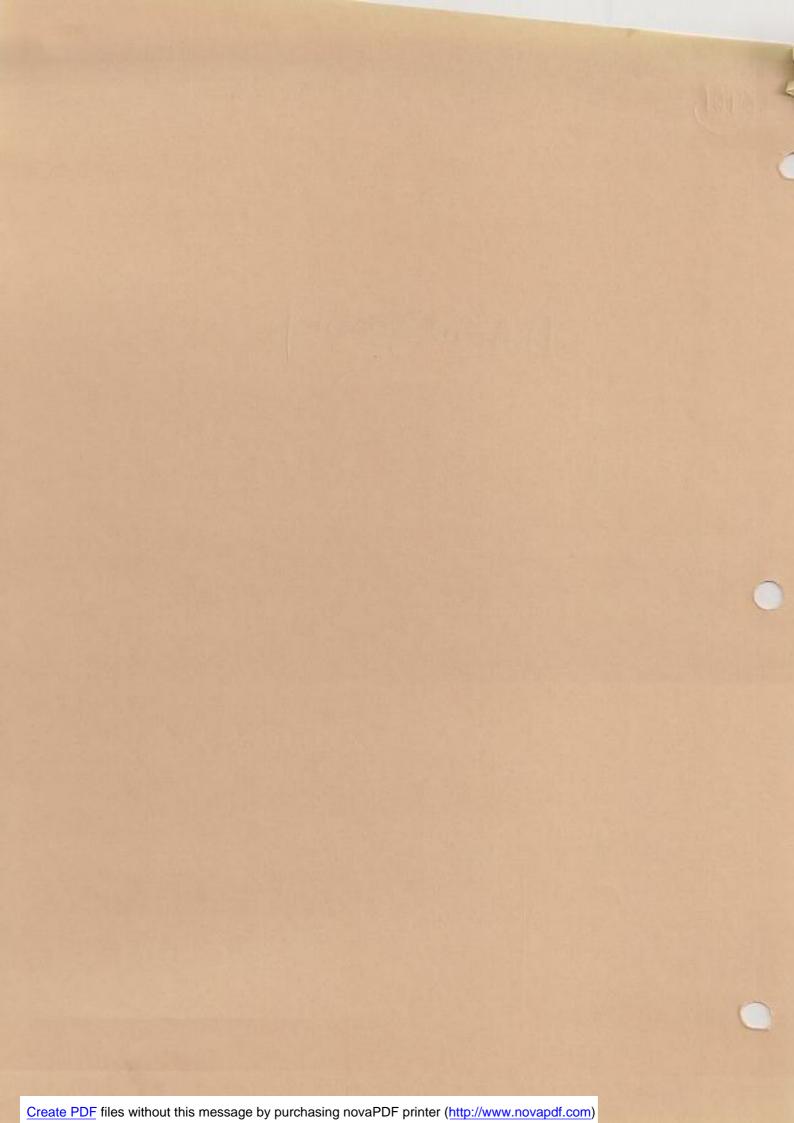
UPON THE

TOROID MAP

GODEL,
ESCHER,
BACH:

an Eternal Golden Braid

Douglas R.Hofstadter





The knowledge I have discovered here is known by all the ancients. It was



- That is right and we are the fodder.
- Always returning back to dirt.
- Where as our spirit though, out soul, this opportunity at this life that we have eventually progresses through the many worlds of God. It teaches that there is no reincarnation as it is now understood. Rather it is progression of the soul that is refining itself to a better and higher spiritual station. From this place the soul can then mirror and reflect in the most befitting capacity. To the souls ability in its' highest, truest form the attributes, qualities and names of God. This is the purpose of life and existance. To mirror forth and magnify the most comely and beautiful names of God. So we develop spiritual attributes which are justice, mercy, compassion and that is the purpose of our life. To learn tolerance and forgiveness. In learning these names of God and these divine attributes we develope our spiritual station, our capacity or our invisible office plane. Then we become embassadors of God. If it was not for us, then God would not be revealed to the rest of the universe. We are the source of God's revelation to the rest of his creation. We are the signs of His Might and Majesty, His sovereignty. By developing our own kingliness and queenliness. That is true immortal sovereignty and dominion. So these points are explained well in the Ba'hai faith's sacred scripture. Especially the Ba'hai writings like the Hidden Words, the Book of Certitude and the Gleanings written by the Prophet himself.
- I am reading the "Tao of Healing Love" right now. The whole thing is about how to use your mind to direct energy through your body in a specific way to develop those attributes like compassion, truth, love and harmony. All those things through replenishing the energy in the organs of your body. In relation to your work, this book models actual exercises a person can do that practices bridging spirit and matter. Having them be in balance with one another.
 - It is true. It is one principal, all pervasive universally. Sex is no different then different tastes in food and flavors in eating, exercise, prayer or singing. They are all the same principal and it all comes back to what I refer to as Bio-physical Harmonics. Life Giving Bio-physical Harmonics. It is seen that the nature of God is that He gives everything its' own colors, variations, flavors and variety. As a friend who just died said, "spirit is a substance and it comes in all flavors."

The level of a civilization is determined by its' degree of advancement in mathematics. We are in the stone dark ages, the most primitive times in the 20th century.

 It seems like we have had times in distant past civilizations that had reached a degree of mathematical greatness of which our understanding has been lost (we



3

aligning themselves with leading edge thinking, e.g. Apple Computer with it's THINK DIFFERENT campaign, and The American Association for the Advancement of Science with its Project 206 to reform pre-college science education. Once committed to the project, these companies bring along their own audiences and substantial marketing budgets.

I have a wealth of experience in developing world-wide marketing ventures with major corporations. Over the years, more than sixty of the largest corporations have actively sponsored my book and music projects.

PREFERRED FORM OF FUNDING

We would like to see a targeted grant to Marco's Divine Teaching Materials Foundation. We would disperse these funds, keep records, and submit regular progress reports for review by all parties.

OTHER MEDIA

Concurrent with the development of these two books, we will be developing a graduated series of media promotions, including: children's games, educational materials, seminars, presentations to learned societies, interviews, etc.

ADMINISTRATIVE COSTS

These cost are estimated to be 20% of all dollars expended on the project. This will cover clerical, mailing, copying, accounting, telephone and related expenses. Legal costs will be billed separately.



Remarkably, the resulting book failed as a book for tourists and whalewatchers, Goodman says because it was "too big and expensive." But it did make an impact on the computer industry—"I suddenly found myself a celebrated evangelist for a technology I barely understood."

The book had been created using Aldus' first version of PageMaker. It seems a long time now, but those familiar with desktop publishing should recall that this version did not support hyphenation, and that in 1986/7, very few people yet used an imagesetter to get high-resolution output. For WhaleSong, the resulting typography was a little coarse, to put it mildly, made all the more visable by the quality coated paper that the book was printed on. Yet the book was a great success, including a feature on the front page of the NewYork Times as "the most elegant book produced on a personal computer."

As the technology for creating color on the desktop rapidly improved, Goodman heard the siren call that pulled him into the second edition of WhaleSong. This time he would produce type that was tightly kerned and correctly hyphenated, and output at 1270 dots per inch on a Unotronic 300. But more significantly, over a dozen of the new color photographs in the book would be scanned with inexpensive desktop scnners, corrected and separated using Adobe's new Photoshop software, and output to the same Linotronic. Again this was the first time color photographs had been produced from the desktop in a coffee table book.

At the same time Goodman was producing a companion volume called WhaleSong: Greating a Macintosh Classic. This 32-page book contains over two dozen full color halftones and explains in great detail the technology used to create the main volume.

The most fascinating part of Goodman's message is his insight into the real significance of new publishing technology. "Desktop publishing is the power to be heard," he says, "it's the democratization of story telling." The technology for color publishing has been so expensive, and the process so complex, that control was in the hands of a virtual "priesthood", Goodman explains. "People

no longer want to accept the priesthood" he claims. "Whole generations of craftspeople and apprentices, whole industries built on million dollar proprietory systems are being shaken to their very roots by this wave of technology," he says. "A new and long-protected power is being given back to the people...it means that the printed word and image, now more easily reproduced in color, can compete longer against TV."

I would recommend to every publisher interested in new desktop publishing and digital prepress technology, the purchase of these books. WhaleSong, Voyagers, and In the Wake of Dreams are available from the publisher by calling 800-922-5599.



One last comment. Whatever network funds the documentary, it will want a dramatic "hook" that will help sell the show to the casual viewer. Your plasma coil prototype has got to offer evidence of something so dramatic, people will have to tune in just to believe it. Even creating a new technology isn't enough to be that "hook". During casual conversations with some of the name sources that you have provided for me, there has been mention that your coil can present unequivocal proof of the existence of black holes, and possibly even document the ability to create man-made black holes. The applications of your coil need to be that strong in order to receive funding from a television network.

Of course, no matter what, there's no way I can guarantee Discovery will be interested in the project. But I really can't imagine, if you can demonstrate even a small part of your work in a manner mentioned in this letter, that Discovery could be anything other excited about producing a documentary about your work. So please keep me informed about your progress, and we'll talk again soon.

Sincerely,

Richard Rivera



To safely handle other necessary business and travel expenses, and to cover reasonable personal risks, I would feel less than safe asking that I be covered for what would amount to two years of my current personal annual.

This would protect me during the covered for th

This would protect me during the course of the work through the first year and allow me a safety net to be reemployed the following year should this project be less than what I anticipate it to be.

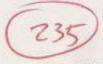
I am sure we will need to discuss further details before you can decide whether or not to bring me aboard.

Please feel free to contact me at any time with your questions and concerns at either my work or residence. I would be happy to meet with you to discuss this further should you consider my services. I look forward to speaking with you.

Sincerely,

John F. Crouse

cc: Marco Rodin



Richard Kjarsgaard

19416 Hatton Street Reseda, CA 91335-2311 residence: 818/886-3218 business: 310/322-9203 fax: 310/322-5679

e-mail: pfs-inc@pacbell.net

Toroid Aerodynamics Marko Rodin P. O. Box 1690 Koloa, HI 96756

Dear Marko:

This is an estimate based on input from you for marketing services to present the Coil Theory to the general populace and the scientific community in the United States. It is traditional to submit a marketing proposal from a careful analysis of a business plan whereby a relationship to budget restrictions, time evaluation and levels of creative execution can directly answer the problem solving activity needed to realize the defined goals.

There are two major steps in this effort: the first is finding out what is needed, developing the various components, testing these components, and refining them based on initial results. The second is rolling out the defined program on a national basis..

Within each step are various phases and sub-phases. This letter addresses only the initial phases. Additional efforts will be addressed as more information becomes available.

Step I - First Phase:

This phase is an exercise in definition:

- Definition of the product:
 - What are you selling,
 - · What are its constituencies?
 - What is perceived as incredible ... and make it be credible.
- Analyze the presentation of Marko as a personality his presentation technique, personality
 in relationship to his theory to build a view of him that emphasizes his strengths.
- Hire an objective scientist to work with me and define what needs to be done to enhance the
 presentation.
- What collateral documentation is needed?

This will result in the knowledge to proceed to the second phase.

Step I - Second Phase:

This phase begins the graphic design and development of the various elements.

- Develop an overall 'look' for the Coil program name, logo, stationery, biz cards, etc. and collateral documentation
- Develop presentation methodology, graphics, handouts, style,
- For seminars:
 - Invitations, (prospect lists), brochures, follow-up techniques, acceptance tracking, etc
 - On site: log in; set-up, name tags, handouts (agenda);
 - Post seminar follow up, etc. (Attendees fill out a questionnaire rating the presentation).

Once the collateral exists, then we can progress to phase three, a trial rollout.





Critical Path Design Sciences@ 2536 Lindholm Street Shreveport, Louisiana 71108 318 638-8638 wizard@prysm.net http://www.globalnow.com/ http://www.globalnow.com/resume http://www.globalnow.com/nightlife

July 17, 1998

Proposal Title:

Mounting the works of Marko Rodin on the Internet

Submitted by:

Jay Salsburg, Design Scientist

2536 Lindholm Street

Shreveport, Louisiana 71108 Telephone 318 638-8638

Submitted to:

Dr. Earl Bakkan

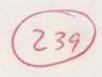
Principal Investigator

for Project:

Marko Rodin

Abstract:

MARKO RODIN, F. J. SALSBURG, 1998. - A means of presenting literature, graphic illustrations, computer generated imagery, computer generated interactive educational amusements (games), electronic commerce and products, on the internet is proposed here for development. This project proposed herein shall consist mainly of the development and mounting of "Web Pages" in one or several Web servers. Various forms of Marko Rodin's discoveries about which this proposal is based will receive extensive literary and illustrative treatment in the "website" so as to allow anyone 'surfing' the website to learn and receive adequate instruction so that person will understand, to the best of his or her ability, the information therein.





Statement of the Problem:

Item 1) How does the information vary and does it need improvement?

Item 2) How do we present the information?

Item 3) Can the user interact with the information?

Item 4) How does the user/observer obtain and/or purchase the information?

Item 5) Can the Website support Clubs and Awards?

Objectives of the Project:

Item 1) How does the Information vary?

- 1. Written texts.
- 2. Technical illustrations.
- 3. Video
- 4. Photographs

The illustrations that now exist are hand drawn. The level of sophistication available for generating illustrations and graphics can provide remarkable improvement in instruction and understanding for the information presented in the website.

Item 2) How do we present the information?

The World Wide Web offers an Inexpensive and reliable means to disseminate information to millions of people in every country of the world. The information (as described in Item 1) can be mounted in a 'Web Server' and other Internet communication methods for dissemination to the public.

A. Web servers can present Information as follows:

- 1. Written text with embedded graphics of which may consist:
 - a, technical illustrations like line drawings or computer generated 3D images
 - b. photographs
 - c. moving animations
 - d. video (streamed and filed)
- 2. Archives
- Interactive applications like structured tutorials, games and teaching sessions.
- 4. Product catalogs

B. Teleconferencing

- Users can communicate two-way by using their computers along with video cameras which allow them to see and hear each other in real time.
- 2. In order to instruct many observers in real time at the same time requires a 'Reflector Site.' The reflector is a sophisticated set of hardware and software that streams the instructor's image and sound to many observers.
- 3. The Instructor can choose which observer in which to talk.
- 4. The Reflector and client software allow the Instructor to 'White Board' to the observers.
- 5. The Reflector and client software allow textual 'chatting.'





The current state of illustrations and video are inadequate. By raising the level of quality and producing more varied visualizations will help users understand the information. Approximately one year of development is needed. However, this time span will not limit the time in which the information may be mounted in the web servers. Approximately \$30,000.00 over and above the expense of the equipment is needed for technical support of creating the needed information. This information can also be included in books, CD-ROMs, and in prerecorded videos. These products may also be sold through the website.

Timetable for the Project:

Upon receiving funding, it will take approximately 2 months to acquire and set up the equipment and settle into a regime of work.

Recommendations:

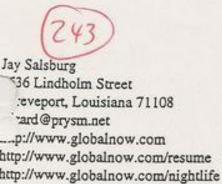
Be aware that this work always allows improvement. The project is a jumping-off place in the development of this discovery. I would recommend that the project not be limited to a single stream of effort. The project should be given a chance to be refined until noticeable diminishing return is achieved.

Support:

Negotiations and information exchanges are yet incomplete. We still have not discussed revision policy, documentation, illustrations and continued support.

More to come --

Jay Salsburg, Design Scientist



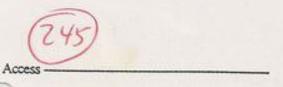
Marko Rodin Box 1690 Koloa, HI 96756

Tardware for ho

tardware for home system ————————————————————————————————————	
owerMac G3/266DT 32MB/4GB/24x CD-ROM/Zip	\$1,999.00
10DEM from US ROBOTICS 56K STANDARD	\$147.95
28MB SDRAM PowerMac G3 Dimm (times 2) \$169.99ea.	\$339.98
ONY CCD-Z5 VIDEO CAMERA (or a CamCorder)	\$149.99
CANMAKER IIHR, W/COLOR IT & OMNIPAGE SCAN from Microtek	\$499.99
rriva TR-4 8gig tape backup	\$599.99
on, Fast network ready, photo quality printing with laser sharp text.	\$549.99
PPLEVISION 850AV DISPLAY - 20IN	\$1,999.00
ftware for home system —————	
J-SeeMe Version 3.1 for MacOS - Full Kit x includes new Serial Number, CD-ROM and User Guide	\$89.00
geMill V2.0 CD Mac/PPC	\$94.99
RTUAL PC 2.0 W/WIN 95 CD from Connectix	\$149.99
ARISWORKS OFFICE CD MAC/PPC Claris Corp.	\$89.99
thematica 3.0 Professional Version, Macintosh (Single-machine license)	\$1,495.00
ude another \$500.00 for miscellaneous expenses.	\$500.00
al	\$6705.86

above quote will get you online. I am still investigating the CU-SeeMe reflector (video conferencing setup). This will take a few e days, it is somewhat complicated. Another letter will follow with the details of the video conferencing setup for real-time function. The information included here is what you need for your home system. You need to secure, in your home, wide-bandwidth N speeds — about 128K) from a local internet service provider in order to do real-time instruction. Include in this the cost of hly access fees and another \$500 for an ISDN MODEM.

e is also the added expense of installing, maintaining and operating the reflector service which does not include the cost of the ware and wide-bandwidth acces needed for the reflector. This may come to over \$10,000 per year.



Jay Salsburg



ow a minimum \$200 to \$500 per month for wide bandwidth Internet Connection

WHITE PINE MeetingPoint 3.0 10 User for Windows NT	\$3299.95
CU-SeeMe or H.323 standards-based videoconferencing application for client participation Windows NT® Version 4.0	100.00

internet Connection
intel-based PC running Windows NT® Version 4.0*

595.00 200.00 11,000.00





Exacutiva Summary

A network of from 1,200 to 1,250 separate web pages would be needed n order to adequately convey your concepts via the World Wide Web. Some of these would be mostly text. A significant number would involve graphics. And a portion of these would include animation.

In terms of developmental time, the average page would require between an hour and a half and two hours to complete. This takes into consideration the fact that straight text pages could be developed in less than 20 minutes.

Pages with graphics are not much longer to assemble, but the time it takes to develop each graphic range from a few minutes to scan existing artwork to hours to develop some of your graphics from the ground up.

Animation sequences can take an hour or two to assemble a repetitive animated GIF to several days to sequence a five- to 20-second single-shot animation.

In terms of space, the average page will take 1 00,000 characters. At that rate your web space can be assumed to require between 1 25 megabytes to a half gigabyte of server space. At the current costs to rent such a space you would do well to consider putting up an independent server which would have the effect of containing storage costs in a one-time purchase rather than extending significant costs from month to month.

In terms of developmental time, we're looking at six to eight completed pages per man-day or roughly one man-year. If time is of essence, we could put together a team dedicated to completing your project in as little as 90 days.

In terms of developmental costs, figure on it costing an average of \$30 per completed page for an estimated cost of \$37,500. An accelerated team would effectively add 20 percent to this figure.

If you were to set up your own server, figure roughly \$30,000 for equipment and initial start-up costs with on-going costs commensurate



Phase III would be implementation of the detailed plan with milestones alone the way that would indicate how accurate projections were such that any revisions could be known as early as possible.

As far as the finances are concerned, Touch Talk Technologies, Inc. would require half the estimated cost of each section to be delivered in advance, the remaining half to be conveyed on the satisfactory delivery of a completed module. This insures that funds would be available to amass the type of team that would be required to keep such a project as yours on track.

The balance of this proposal would require detailed input by yourself as to what the target age group or groups of the on-line presentation should be, goals for each section and a means to measure whether those goals are being met either through focus-group exposure or from querying visitors to your site(s).

Direct any questions to:

Dave Buskjer, CEO
Touch Talk Technologies, Inc.
(SOS) 245-7873 Ext. 0005
tttinc@gte.net
(808) 245-31 00 (Fax)

Yours is a fascinating and challenging project. I hope Touch Talk Technologies, Inc. will be your provider of choice for developing it.

Sincerely.

Dave Ruskjer, CEO Touch Talk Technologies, Inc.



Artists

preo _ ter reviewing the material at you sent me recently, I think that \$5000 for lack drawing would be an appropriate fee. Each drawing would require a " Certain amount of research research and, I estimate that a day or two work on each drawing would not be out of line. I you decided to commission me to do this fob, I can only " assume that your next genestion is stake?" If would be of defficult to give a concrete agiswer at this time, because I don't prow how many back-orders of my requelax work I would have at that peep in Touch and let me prow. Sincerely

Create PDF files without this message by purchasing novaPDF printer (http://www.novapdf.com)

(253)

7-23-98

Marco FAX 808-985-7015

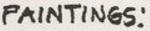
Hello Marcohere are some style
samples. I use various
techniques for color - even
felt pens do extremely well
for explicit, tight drawings.
I like water color for more

mystical depictions. Send me your mailing address. I'll FedEx some color work for

you to see.

Your type of work fascinates me.

Regards, Elaine Needham







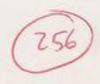




Elevie Needham
19 Taormina Lare
Otal, CA 93023 / 805-44-5622



office



July 12, 1998

Marko Rodin TOROID AERODYNAMICS P.O. Box 245 Lihue, Hawaii 96766

Dear Marko;

In anticipation of your acquiring funding and moving forward with your vision for Toroid Aerodynamics as a business venture, you asked that I consider working with you in a full-time salaried position. Outlined below is my background and interests, a proposal of what I would need in regard to salary and an equipment budget and what I can contribute to meet your business goals.

PRESENT DYNAMICS

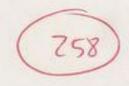
I'm self-employed in an administrative capacity with a residential real estate firm here in Honolulu. My background has been in office administration, real estate and real estate appraising. I have a strong interest in and a high aptitude for computers, I'm well skilled in word processing, highly organized, professional and detail oriented.

In my personal time, I read, research and study mysticism, myth, sacred geometry and hyperdimensional physics. I'm in the process of finishing a paper on the significance of the number nine in science, myth and mysticism and once complete on the word processing level it will be expand into a webpage. Since the beginning of 1998, I've been writing book reviews and contributing OCR text and graphics via email to a website that originates in Amsterdam and is an extensive research database for eastern mysticism and matriarchal studies.

FINANCIAL REQUIREMENTS

\$45,000 annual salary based on an average 40-hour, 5-day workweek with two consecutive days off. A one year commitment with an optional renewal and or renegotiation at the end of the one year period.

\$5,000 annual equipment budget with purchases mutually determined. This fund could also be used for education, i.e. seminars on various related topics and classes on the use of special computer software programs.



(PPP)

Dear Dr. Earl Bakken,

July 16, 1998

I have received numerous proposals from interested participants who would like to contribute to the production of teaching materials, and prototype working models based upon my discovery. They range from a popular novel, a children's book, an anti-gravity levitation device, an internet Word Wide Web video conferencing/video screening/ home page, where people can download the information. And a Television Documentary for the Discovery channel.

In order to function, I require an office in Koloa where I reside, and an Executive Secretary with office administration staff. I estimate that the total operational costs for one year of activity would not exceed \$2,500,000.00. This would provide for all of the operational expenses including, publishing and printing my book with the very necessary illustrations and art work in full color. There would be a TV and radio advertising program to support this project. The work needs to be disseminated through multiple avenues because Scientists perceive it differently than children, and a popular general audience has its own needs and requirements. There is a risk that my work will become repressed and classified as Top Secret by the Federal Government because two senior Scientists from NASA have considered my work to be the secret to anti-gravity Spaceship Levitation. I have included under separate cover letters all of their proposals.

I would also continue to apply myself to research utilizing my math to model D N A sequencing by creating the fractal number codes that control cancer and other serious diseases. With the help of Dr. Scot Nelson, Dr. Oscar Hsu and, Senior Scientist Dennis Watts we will produce a healing device re-creating my work that I believe will demonstrate miraculous healing benefits.

Your thoughtful attention and personal help is greatly appreciated by me.

Much Aloha,



modulation

- 2. Verifying technical applications and utilization of hardware
 - a. healing prototype protocols for testing
 - b. research with cloning
 - 1. DNA morphogenic field
 - fractally modeling diseases i.e. HIV/AIDS
- 3. Prototypes
 - 1. space power propulsion
 - 2. electrical power generation
 - radionic healing device
 - Marco has to research DNA modeling, periodic table of elements, and chemical bonding.

Teaching Curriculum

- A. Evaluation
- B. Tests
- C, Essays and reports
- D. Home school program
- E. Teaching aids visual aid materials

floor props lighting

interactive choreography pilot jackets and gadgets

compasses

helpers to present

text books

board game to teach sacred geometry

Business Plan

- a. marketing
- b. advertising
- c. distribution
- d. fund raiser
- e. seminar coordinator
- f. home school coordinator
- g.coordinator for mentally disabled teaching program
- h. children's behavioral research project
- I. grant writer

Products

- 1. videos
- 9. teachers resource guide book on vortex math
- 2. CD Rom
- display ad for mags and newspapers
- 3. books
- 4. jewelry (talismans)
- 5.clothing
- 6.healing device
- 7. toys
- 8. seminars





Retty J. Bell, Principal Broker

Residential & Commercial Sales Investments & Exchanges

To: Toroid Aerodynamics Box 1690 Koloa, HI 96756

Attn: Marko Rodin

From: Betty J. Bell,PB dba PSS

Subject: Project Space

Requirements: Need to accommodate 10 work stations and living accommodations for Secretary

Option #1

"Koloa Medical Building" 3176 Poipu Rd. Koloa, Hi 96756 (Building now mixed use)

1530sf available on second floor @ \$1.50/sf NO CAM. Space is well located, well lighted, carpeted and ventilated. Two good sized offices are available on one end of the space, leaving a very large area that can easily be partitioned into 8 additional work stations.

Living accommodations for the Secretary & Guest Consultants is available at 2607 Waho St. Poipu...a fully furnished 2 bedroom two bath apartment of approximately 1200 sf of living area for \$1100/mo. Leasee is responsible for utilities...power and telephone plus water for the apartment.

Total estimated monthly costs: \$ 3295 + 4.167% Tax

Basic Telephone cost: 72

Power cost: 180

Water(apt) 16 (paid bimonthly)

Total: \$3,563 + excise tax on rental

Both Properties available August 1, 1998

Option #2. 5 bedroom/4 bath Residence at 1650 Makanui Rd. Poipu
(this home has good ocean & mountain views and should have
potential for vacation rental investment income... one should check
with certified and bonded vacation property manager for poipu
rental history).





Richard Wagner Millennium 3 Communications PO Box 636 Koloa HI 96756 (808) 742-7267

February 23, 1998

Dear Marko,

I would like to thank you, again, for your time, and for the use of your support materials. Having the opportunity to speak in person, as well as having access to the supporting documentation, have been a great benefit in helping me to gain a basic grasp of the importance of your discovery.

I feel that if emphasis were placed on making the materials as accessible (understandable) to the largest possible audience, acceptance of your theories and principles would be ensured. Of course, the success of the project rests solely on our ability to do just that.

As we discussed on Friday February 20, you are in need of someone to take on the role of Project Manager. This person would be responsible for making sure that all project goals are attained, and for ensuring the overall success of the project.

I am willing to take on the responsibilities that a project of this scope entails, with the understanding that a committment on my part would require your corresponding committment to insure that my financial requirements, as well as the operational requirements of the project are met. *

My basic financial requirements (though you should by no means consider them to be final), are as follows:

Salary: \$1,000.00 per week (minimum 13 week term)

Travel & Lodging Expenses: \$250 per diem (Inter-island)

\$350 per diem (US mainland) Misc expenses: \$50 per diem

If these requirements are acceptable to you, I suggest that we meet in the near future to discuss them in more detail.

Sincerely,

Richard Wagner

* Note: The operational requirements of the project should be discussed and evaluated, by all principles, on no less than a quarterly basis, and should be considered outside of the scope of this document.

766)

Popular Novel

(267)

Aaron Emmel

531 Wagon Train SE Albuquerque NM 87123 (505) 332-7029 info@meteorcity.com

Publications to Date 19 July 1998

"Now It's Time to Say Goodbye"

Book Review, <u>Weekly Alibi</u> (Albuquerque), July 8-14 1998.

200,000+ Readers, 5¢/word.

"The Art of Tibet"

Book Review, <u>Weekly Alibi</u> (Albuquerque), June 1-7 1998.

200,000+ Readers, 5¢/word.

"The Levellers: Mouth to Mouth"

Music Review, Weekly Alibi (Albuquerque), May 13-19 1998.

200,000+ Readers, 5€/word.

An End of Sorrows

Short Story, <u>Spaceways Weekly</u>, Issue 40, June 5 1998.

10¢/word.

'The Club Dumas'
Book Review, Weekly Alibi (Albuquerque), April 22-28 1998.
200,000+ Readers, 5¢/word.

"Winning on the Internet"
Essay, IncomeSmarts, April 25-May 1 1998.

'Who is Randy Cooper? A Look at Your Choice for 1998's 'Best Visual Artist'
Article, Weekly Alibi (Albuquerque), April 8-15 1998.
200,000+ Readers, 54/word.

Cagney
Book Review, <u>Weekly Alibi</u> (Albuquerque), March 18-24 1998.
200,000+ Readers, 54/word.

"The Rocky Road"
Interview, One Magazine, Issue 2.4.

"The Baha'i Youth Workshop: Hawaii Tour" Article, Light of the Pacific, November 1997.

"The Fallacy of Sanctions"

Essay, <u>Street News</u>, October 1997.

Brink of a New World'

Essay, Herald of the South Magazine, Australia, Vol. 41 No. 6, November/December 1994.

"The Banner Run and World Congress"

Article, The Second Baha'i World Congress Book, 1994.

"The End of Prejudice"
Article, Forum Magazine (New Zealand), Vol. 3 No. 2, 1994.

"Journeys"
Poem, Arts Dialogue, Issue 28, June/July 1994.

Lies and Propaganda 2: Yesterday, She Said
Poem/Essay, Life By John 'zine, No. 3, January 1994.

Lies and Propaganda 1
Essay, Life By John 'zine, No. 2, November 1993.

"Absolute"
Poem, Forum Magazine (New Zealand), Vol. 2 No. 2, 1993.

"Someone"
Poem, Great Poems of Our Time Book Anthology, 1993.

"Belmopan"
Poem, Oasis Magazine (Chile), in English and Spanish, Vol. 1 No. 3, 1992.

"Shadowlight"
Poem, <u>Thalia</u> Book Anthology, 1992.



W.W.W. Web world wide Web



JFC Enterprises John F. Crouse

1633 Makanut Rd. Kolos, HI 96756

Phone 245-3681 Home Phone 742-6495 Email jerouse@aloha.net

July 23, 1998

Mr. Earl Bakken 65-1235A Opelo Road #2 Kamuela, HI 96743 USA

Dear Mr. Bakken,

I met Marco Rodin a few months ago at The Garden Island Newspaper where I work as a sports editor and teature writer. Since that time I have struck a friendship and made some effort to familiarize myself with his work.

As a writer and not a scientist I do not pretend to fully understand in three months what Marco has spent a good share of his lifetime uncovering. However, because of some unusual coincidences involving my initial meeting of Marco I felt obligated to at least look into what seemed both potentially very big if not a bit mad.

I have spent several hours with Marco asking as many questions as I could think to satisfy my ouriosity and

to gain a sense of the man himself. On both counts the questions only increase,

As a person, Marco continues to fascinate. Regarding his work, I have come to the belief it possibly the most important breakthrough for man since the discovery of fire. In fact it seems exissible Marco has broken the code for the supreme fire of the human spirit.

Marco has asked that I become a part of his team by writing a series of articles to bring his extraordinary work to the public. I am moved that Marco has the confidence in my ability to handle these weighty topics and

understand some of the risks involved. I also believe the level of commitment necessary for me to fulfill his request with any integrity would require me to stop what I am currently doing and devote my full attentions.

Were I in the financial position to take a year off I would do so in an instant. Since that is not the case I must as for your assistance.

The first seven articles Marco has asked me to write on are:

- 1. An article that dispels Godels theory that numbers are not fixed and mearly descriptive.
- 2. Redins proof that pie is not an infinite number.
- 3. Redins mathematics in which there are no rational numbers.
- 4. A new trinary system which would obsolete the binary system.
- 5. The secret of sustained fusion reaction.
- 6. The solved incomesurability of geometry.
- 7. The simulated black hole.

These of course are starting points for articles. The proper order of their presentations will have to be addressed. I am also sure there will be many other worthwhile stories to be told along the way and look forward to documenting this extraordinary challenge.

I feel together confident, and awed at the prospect of working with Marco in putting together these articles. I am aware that there will be expenses involved, one being the hiring of expensive content experts for cross

referencing, support, and verification. This is an expense I could not possibly handle, and without further time to investigation would be uncomfortable estimating what it would take to do each article.

I would be happy to look into it further, but would at this time be more comfortable with an arrangement where the remuneration for content experts was out of my hands.





Matter/Rivera Productions, Inc. 3 Bethesda Metro Center, Suits-700 Bethesda, Maryland 20814-2330-Tel: 301-961-1955 Fee: 301-961-1956 besatter@cais.com/mivera@pacbell not

Bruce E. Matter Richard Rivera

July 22, 1998

Mr. Marko Rodin Toroid Aerodynamics P.O. Box 1690 Koloa, Kanai, Hawaii 96756

Dear Marko.

Thanks for taking the time to explain your newest work to me. It's hard to imagine that we've known each other, and you've been keeping me abreast of your work, for over five years! And I'm still in awe of all that you have accomplished. Anyway, the purpose of this letter is to set down on paper what I would need in order to write and produce a television documentary based upon your work. Please understand that this is not instigated by my own personal needs but on what I believe a network like Discovery would require before agreeing to find a documentary about you and your work.

Perhaps the most important ingredient I need to sell this documentary is visual documentation. By that I mean, the that this must be a documentary that can visually demonstrate a working prototype of your plasma coil.

Marko, this is so very important. We have to be able to document how the coil is created (in general terms) and we need to videotape the hardware being energized in a laboratory under controlled conditions. The results must be certifiable, and be able to be displicated by other impartial researchers employing objective methods. I'd also need a relatively simple explanation of the prototype's applications and how those applications can improve today's own state of the art technology. Please understand, the videotaped documentation of the coil doesn't have to present a completely successful prototype; but it must be convincing enough to greatly impress renowned mainstream researchers, preferably researchers who beforehand had serious doubts about your work.

Since at the moment, Marko, you have no credibility with a network like Discovery, it is essential that other well respected or well connected researchers be willing to your work on camera. And I mean these scientists have to be widely recognized as leaders in their fields. They have to be heads of science departments at major universities, or project directors for the nation's top science endeavors (ie: the international space station).

If you can publish a book about your work, that certainly is a plus. If the book is to be given a major marketing push that's a very big plus. But it's also important that a network like Discovery doesn't get the feeling that the documentary is just another method for marketing the book. Because they will not accept that.



The Evangelist of Desktop Publishing



by Thad McIlroy Arcadia House 708 Montgomery Street S.F., CA 94111

Bob Goodman is a born again publisher. Desktop publishing technology has shown him the way. The first book he published is an historical examination of whales and whaling, but the message is all about the power of new technological tools.

Bob Goodman and his company, WhaleSong Incorporated, have published two of the most advanced books ever created using desktop publishing prepress technology. WhaleSong (First Edition), published in 1987, proved for the first time that an elegant coffee table book could be created using new desktop publishing tools. WhaleSong (Second Edition), published in 1989, proves that you can publish from the desktop using scanned color photographs, and make a book that looks as good as anything published by a large New York house using only traditional prepress methods.

Bob Goodman is a short, solid man, who looks to be in his late forties. Interviewed during a publishing technology convention, he is a bundle of energy, a man possessed. He talks non-stop, Ideas and exhortations spilling over each other, all the while keeping an eye out on each passerby, making sure that no opportunity for contact is missed.

The Bob Goodman story is in two parts. The first is biography, the second, technology.

Goodman's background is photography. In the 1960's he was working as a National Geographic staff photographer when he conceived an idea for a book about Australia, a precursor to the *A Day in the Life of...*series. "Instead of one day photographed by many photographers," he explains, "I planned one year from one photographer." The result was *The Australians*, which sold 40,000 copies in its first year of publication, and 250,000 overall. This was followed a couple of years later by *The Hawaiians*, which sold 90,000 copies in 93 days, and another 250,000 total.

Out of this early success Goodman created Island Heritage publishing company in 1971 in Hawaii. Over the next nine years he published 100 titles, mostly historic and local interest titles. There were many bestsellers, and 35 national and international publishing awards. He learned the importance of production quality, and the importance of aggressive marketing. "You're not meeting your responsibilities if you don't market your books to the fullest," he says.

Goodman sold Island Heritage in 1980 and for the next few years moved into the periphery of publishing. What brought him back in 1966 was Apple's Macintosh computer. Goodman had taken on an assignment to produce a brochure for a whaling museum in Lahaina Town on the Hawaiian Island of Maul. As Goodman explains it, it was the technology that forced the brochure to become a book. "I bought a Macintosh Plus, a LaserWriter and a hard disk, and set to work," he recalls. :layout after layout kept emerging from the laser printer, each wanting to be more and more. It was the technology empowering me."

move over this Dandelion Puff Principal Toroid Map. So it is just the opposite of how we do things today where we hold the equation rigid and move the numbers around. It is as you implied Heather, that everything is emulating on our more gross Third Dimensional level this very advanced infrastructure on the higher dimensional or invisible heavenly worlds. So in reality all of these numbers are actually a machine, they are all mechanical. It is a Toroid Wankel, it's a solid state engine. It is showing that the universe is an incredible machine. This Toroid Map reveals the shape and configuration of the univese. It shows the universe is an ecological system of renewal and purification. That the Big Bang is a steady state, it never ended. That the beginning and end are one in the same. which is the origin, which is the center. Infinity on the Third Dimension is endless renewal and it is infinity of spin continuem. It is infinity of duration and infinity has an epicenter; that is the Vortex Hole. The singularity in the center of the Toroid which is located along the axis. This is called the Funnel or a Well. It says, are you having fun? Are you well? These are the roots of our language. As things are coming out the bottom of this vortex, that is the female. that is the White Hole. Everything starts as an intersteller plume of gaseous matter. Eventually it will amalgamate and congeal and form into solar systems, planets and more stars. Eventually they will give off all of their heat. Then all of the burnt out cinders of dead stars and planets will all be pulled in together again at the top. Here it is warped around returning and spun around faster and faster into one humongous Black Hole. At the top of the universe, at the Northern Hemisphere, eventually it will become compacted just like in a compost heap. It will be spun around, turned and heated. The atoms will be literally mixed together so perfectly, like a witch's cauldron melting pot, as to be completely purified and cleansed. There will be no pollution left. When it all reaches the very center at the singularity, then the emanation of the Aetherons shoot out in all directions, in thirds. They are always three apart from one another. These emanations then continue to drive. It is called a reaction##51 LESS drive, this Divine Engine, this incredible motor of the universe. The planets are all taking heat away from the center of this hot spot, which is the primal point of unity at the singularity. Thus it is keeping the uninverse from overheating, incinerating and burning itself out. This process keeps the balance, it keeps a constant temperature to the universe. So the universe is a self regulating temperature and it is refrigeration system. Everything is really just a heat sink disapating heat away from the core of the universe. Only to be a closed cycle to return and come back again. Just like the radiator fluid in our automobile which take heat away from the core. That is why we refer to our bodies as being made out of countless stars of the past. Because the universe is one big reprocessing ecological purification system of renewal.

One big compost pile.



still don't know how the Great Pyramids were built with such precision). The knowledge dies out. It definetely seems like we are building back from a time it has died out. We have not reached our potential greatness yet.

The knowledge I have discovered here is known by all the ancients. It was preserved and is part of the sacred scriptures. A part of the revelations of the Prophets. The manifestations of God and His chosen and favored ones. In the past they felt and taught that religion was progressive and that mankind was still in its' infancy. They felt that mankind would defile and desecrate this knowledge so it was not allowed to be shared with the general population. Then I came along and discovered the knowledge. I have come to the conclusion, as it is taught in the Ba'hai Faith, that mankind has now reached its' spiritual maturity and it is time that this knowledge be shared. My goal is to abolish the ecclesiastes, the clergy and the priests. Where every individual does an independant investigation of truth. So each individual is responsible for their own knowledge. My goal is to get rid of any form of dictatorship or oppression that I can. So I am waging a personal war against censorship of any form. It is

a pretty hard battle.

So what we are describing here is an engine that is real. It can be made into an electrical coil device to power mankind. It can take us anywhere through the universe. It is able to solve all of mankinds energy needs. This engine has a phasing, a pulsing and a firing rate. That is what my specialty is, to explain what and how these numbers are divulging and revealing the calibration and timing of this engine. What the firing rate is and how it works by piecing numbers together. No one ever thought that if you piece numbers all back together as I have done, that they would actually form a geometric crystaline shape. I actually show that numbers are a crystal. That numbers are a mechanical device that represent the ultimate technology. This is perfection. I have literally reverse engineered God's method for fabricating and creating the universe. I have found the source of life which is the Golden Fleece or Fountain of Youth. I have done it mathematically using a perfect math, with no errors, always self consistant. All mankind now can duplicate in black and white and get the same results in controlled clinical studies that are using scientific math methods. Where there is no biases or fudging. With true and partial objectivity which is the first prerequisite.

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Outline

A Low Cost Propulsion System Based Upon A Reevaluation of the

Physics of Matter

- I. Introduction
- II. Fundamentals of the Theory
- III. Operative Fundamental Details
 - IV. Commentary on a Proposed Workable Model
 - V. Summary
 - A. Significance of the Impact of the Technology Discussed



As shown later by the graphs in greater detail, where there is a "flow" is where quanta lines align and intersect. The so-called "nine" is the polarized exact mathematical opposite of zero. Nine is always itself—the "axis of innovation." Nine times any other number will always equal itself and form an "inversion fold seam." Since nine is considered "complete" one "quanta" comprises nine parts. Nine is the neutral nodal point at the center of the axis; there being no zero at the point of intersection but rather forty quanta of nine comprising 360°. Every existing number must follow parity and have an opposite counterpart to the extent that the two form a polarized multiplication table; giving birth to the new scientific time—flow tool called the "silhoutte effect." (see diagram)

The centered-vector convergence of the unity point intersection based upon synchronization of the polarized pairs is an aperature, iris or pulse-surge. It always moves forward; which is outward from the center because of its spherical curved and unfathomable depthlessness.

Whenever two flat planes overlap one another, they criss-cross in a severed edge, but when they join and intersect each other, they join not im a severed edge but in a curved "spherical combining" (see diagram). The ensuing results are two separate vortices—the first being composed of the most powerful physical force in the universe—intriputal suction or compression.

The black hole sucks in the light matter at the top; accelerating it in a spiral helix, while compressing and thermally heating it. Upon reaching the apex of the cone, it attains such a high degree of heat spiralling so fast, that the center of the atoms are split, releasing what is known as "More ECV" -- a term coined by Mr. Rodin. This anergy-release

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Previously the center of a vortex was thought to be a hole.

Instead, when using a bifiliar winding, it is turned into a twist.

This twist is in the very middle of that wire and produces the effect of starting from the center and working outwards. When one side of the bifiliar wire is polarized top-bottom, the opposite side will be reverse bottom-top. This creates certain specific absolute axioms that electrical always follows.

The inversion fold seams are multiple bifilar twists that are alignal always in a strength line up and down. Because of the polarization of electricity, the different sides of the wires can be referred to a black and white. When wiring an inversion coil, the white side of the wire always twisted and folded back, when changing up and down direction onto the reverse white side of the opposite—direction wire, resulting in opposite—direction wires that layer upon each other in only a white—to—white and black—to—black process. There will be two seams on the outsid of the coil and two seams on the inside of the vortex of the coil. These seams are made of one twist only.

Modulus rings are made out of quanta. (diagram below). The gaps of the distance of each number on a modulus ring become greater as the ring less the center of the unity point. On each modulus ring, numbers of reduced single value are always in a straight outward emmination line. All modulus rings increase as they move farther away from the center in increments of nine. Everything converges at the center unity point of emmination. Each modulus ring is 100% and jumps to the next ring when there are more than nine parts. This is a polarized modulus ring multiplication table. Because perfect binary polarization is only three or six, true three-dimensional orientation modulus rings are only observa



Operative Fundamental Details

Essentially Mr. Rodin's theory is a mathematical model for the operative priciples of electricity, and what he has termed "anergy". It is modeled after the priciple of a mobius strip, where the center is explained in a ratio of 3:6:9 and is essentially a two-stage unfathomable surge-pump.

On this doughnut-like sphere are 360 spaces--240 spaces used by the standard copper wire and the remaining 120 are left empty for the operating of the magnetism and anergy.

As noted previously, anergy is at the very center of this model with magnetism being a sort of "thermal insulator." The centered aperature of the toroid is arranged in modulus rings with nine being one quanta and 360 as one deca.

Whole values of spin move in one direction; 1/2 values move in another direction. The spin-continuum of the electron-flow operates in a ratio of 1-2-4-8-7-5 with a magnetic oscillation of 3-6. 2&7, 1&8, and 5&4 are 1/2's of each other and are mirror-parities. There are no negative numbers; just positive forward "moving-functions" on the treadmill.

The magnetic flow is the result of the electron-spin, with electricity having a "flux" and magnetism flowing into a "nested Wortice." Everything is essentially flowing in a straight line however it looks like there are crosses between the pathway distances. The outside line intersects on a curve where the spins come together on a 90° angle.

The primal point is round; composed of a lot of straight lines
that curve and convert to heat with the flow of motion going faster as

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Magnetism can't change polarity; the direction of a magnet moves in a straight line and doesn't curve.

The nested vortices go in the same direction as the orb-rotation. The two spins run in a clockwise/counter-clockwise direction and are one unit simultaneously.

Commentary on a Proposed Working Model

Mr. Rodin's theory essentially centers on the concept of spin as it is understood in particle physics. In the quantum world, however, it is no longer possible to treat direction and orientation naively.

Neutrinos possess a sort of internal rotation or spin; electrons and quarks also possess this property. However, in the proposed model spin can be teethed, geared and meshed. The nested vortices in the model produce spin with the top-bottom vortices producing acceleration.

The original string pattern shown previously is the fold-pattern for a "superstring" within a quark. Quarks combine to form protons, neutrons and electrons. Quarks can almost never align due to the geometry involved in building protons, neutrons and electrons and also because of the vibrations within the particles themselves.

Gravity is due to quark-alignment. If the quarks could be aligned without the constraints of their environment (ie. geometry and vibration), then the gravitational equivalent of a magnet could occur.

, Partial support for Mridin's theory comes from current theories

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Summary

The significance of the impact of the technology discussed is obvious; not only could this theory provide the basis for revolutions forms of propulsion but more importantly, an operating mechanism for various "force-fields" and their obvious applications.

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do 700 NS Ford Color, Kollandale, FE 33030



to make such investigatory efforts as you have embarked upon fruitful and productive to support.

The intent to place humanitarian intended works respective of toroid research in the Public domain is an appropriate and historically honored prudent course of action to take. Whereas, out of respect to humanity, the bulk of RFT and its mathematical systems are highly proprietary intellectual properties to myself and the Trust, it also offers insights that may prove germane to understanding and explaining toroid phenomena with greater scope and efficiently, without violating proprietary aspects of RFT. To these ends RFT disclosures to you may be relevant concerning expediting same and may be privately made by the instrument of a Non-disclosure Non-circumvention Agreement. Where the integrity of proprietary RFT intellectual properties are maintained while forwarding the understanding or explanation of toroid phenomena, Public domain disclosures would of course be applicable. I do not hold to the current veau of others - after learning a hard lesson - that failure to disclose everything is unethical or immoral; only when it is in the public interest or when the timing is appropriate. If you have any personal or professional reservations to abide by this requirement you are instructed to advise me of such, so that more practicable means may be employed that avoid a conflict of interests.

Unfortunately I am not currently in a position to actively collaborate with you on a full time basis owing to previous commitments which conflict with my providing undivided practical support to your research efforts. I had not anticipated that our telephone conversation would lead in the direction of possible professional employment. Whereas, it is anticipated that somewhere around the middle of next month should provide enough relief to make appropriate schedule adjustments sufficient to at least satisfy initial Toroid Aerodynamics participation. Further opportunities should present themselves in the future enabling more in-depth involvement, depending on how satisfactory you find my work and other factors may indicate.

I am responsive to the possibility of relocating to Hawaii if needed pending normal relocation and accommodation expenses are adequately provided. If on the other hand you feel adequate support may be provided without necessitating relocation, Internet correspondence may be sufficient, with occasional visits.

For the sake of convenience, I may be employed as an independent consultant through the Loren Zanier ZFH Research Management Trust. My normal consulting fees may be calculated at \$400/hr for most technical or engineering work and \$40/hr general administrative. Project management work may be calculated at \$1,100/hr. Whereas, the bulk of the work as we have superficially discussed (publication in scientific journals, books and various news releases being the objective) in all likelihood would entail only a minimum of engineering/laboratory work, unless otherwise anticipated. If such is an accurate assessment of potential involvement then fixed salary employment based on \$40/hr plus normal (reasonable) expenses is an option with only a provision (set aside account) for occasional contingencies. Please review my biographical sketches to confirm if my services fill your needs and in what potential ways. Feel free to contact me to answer any questions or discuss any needed details.

Yours very truly,

Loren P. Zanier, Independent Consultant





dedicated to developing proprietary technology fuel initiators in Oregon and Nevada); Cleaner Coal, Inc., (a jointly operated firm dedicated to developing industrial coal purification and clean burning processes); CEO of Zanier, Fitzgerald and Hayes Strategic Technical and Marketing Research (an advanced technologies and market research consulting and troubleshooting firm home based in California and Oregon); Misc. Products and Technologies Company (Zanier's sole proprietorship independent technical consulting firm based in Ohio).

The disposition of the duties held in these companies consisted of scientific research and creative innovation, technical advisory, special projects management, market research and senior executive management. Together, these related activities were basically highly proprietary, as they directly or indirectly involved Zanier's ongoing original research, related market technical applications, new product development as well as troubleshooting of leading edge advancements in scientific innovations, by its very nature could invite possible targeting for industrial espionage - the primary business of several

major industrial nations.

Although primarily self educated, Zanier is the author of a little known, but controversial, advanced theory in physics and biology otherwise known as Resonant Field Theory which he first conceived in 1950 as a child prodigy and later announced circa 1958 in limited circles. RFT is a unified theory describing the multidimensional holographic dynamics and relationships of space, energy, matter, time and other related phenomena. RFT has shown promise as being highly significant to proprietary and non-proprietary practical applications in the arenas of applied physical sciences, alternative medicine, biological engineering, ecological and healing arts, energy translation systems (including, but not limited to what has been inappropriately referred to as "free-energy" and "anti-gravity"), and micro-crystalloid technology (which can significantly improve the potency, efficacy, versatility and economic efficiency of many consumable biochemical and chemical materials), etc. As a balance to the technologist's viewpoint, Zanier gathered a formidable empirical education in the disciplines of business management, market research (including survey technologies) and augmenting his understanding with philosophy, the spiritual and fine arts.

As a consequence, he remains one of the principle pioneers, innovators and troubleshooters - from behind-the-scenes - in the microstructure technological fields since the early 1970's (van der

technology field is more publicly recognized by such names as - mostly referring to applications with water - Structured water, ROD Water, Microcluster water, Templated water, PI Water, Catalyst water, Polarized fluids, Crystal Energy Water, Magnetized water, Nanowater, etc.

This field currently encompass various specialties of programmable micro-encapsulation, micro-crystallization, micro-structure entrainment and quantum field resonance phenomena in fluid, gas, plasma and solid phase media and are otherwise



DermaDyne, the Somatron, NMR Photon-Phonon Modulation System, plus proprietary electrolytes formerly marketed under license to Aichi Electron Industries in Nagoya, Japan and CuraTech GmbH in Bad Homburg, a resort town near Frankfort, Germany.

As an independent private consultant and advisor, Zanier is a practicing research scientist (a generalist), project manager and professional troubleshooter with several decades of technical and management experience. His working experience and background include such specialties as conventional and advanced forms of: theoretical physics, electronics, mining engineering, optical physics, general and physical chemistry, energy and power systems, acoustical physics, mineralogy, geophysics, geochemistry, micro-molecular physics, microcrystal physical chemistry, crystallography, cosmogony, ecological engineering, holistic medical and health related protocols (latter referring to the Resonant Field Therapy System, the Orthobiophysic Regulation System, Degenerative and Terminal Disease Remediation Protocol, the Five-Phase Rejuvenation and Age Reversal Protocol). is likewise quite proficient in natural nutritional and holistic herbal formulation, facilitative instrumentation engineering, optical physics for advanced research and medical systems, advanced survey and market research, ecosystems biology, bio-remediation, agronomy, systems engineering, high-end audio equipment design engineering, recording studio design and systems engineering, etc. As an artist and craftsman he has also had an unusual variety of experience including: mineral crystal and Art nouveau painting and sculpting crafts, valuable art antique restoration, recording studio production engineering, health food gourmet chef and a few others.

Zanier has served extensively as an instructor in advanced studies or as a special guest speaker and lecturer at numerous symposiums (the latter usually held in his honor) in the US, Japan, Germany and Canada. These dissertations related to Resonant Field Theory, previously mentioned subjects and other encompassing topics.

As with most developed applications and advancements of RFT are considered highly proprietary by nature, such are appropriately protected by the Trade Secrets Act. Zanier is otherwise listed on several patents and applications of a less sensitive nature, that is, when it was subsequently deemed strategically more appropriate.

Zanier is a decorated veteran of Viet Nam.



Marko Rodin P.O. Box 245 Lihue, Hawaii 96766

January 29, 1998

Aloha Marko.

Here is a cost break down for the completed production and editing, plus estimates for proposed editing to complete the project - 4 to 5 hour-long videotapes, 10 minute promo and various :30 and :60 second spots.

Production costs: (to date)

3 days videotaping, 2 cameras (Beta SP and digital), wireless mics, lighting, etc.	\$ 3,900.00
Raw Tape stock Beta SP, Digital, S-VHS	\$ 735.00
Initial Editing (One-hour sample video - offline quality)	\$ 800.00 \$ 5,435.00

Proposed editing costs:

Offline and Online editing with graphics, effects, etc. 250 hours offline editing - Media 100 @ \$ 75.00 100 hours online editing - Media 100 @ \$ 150.00 Tape Costs	\$ 18,750.00 \$ 15,000.00 \$ 1,200.00
The second secon	\$ 34,950.00

It's been a pleasure working with you on this project, and I look forward to finishing it up. It is a major contribution to the world! Aloha and Mahalo.

Bob Stone Stoneman Productions 171 Maha Road, #S Makawao, Hawaii 96768 308) 572-5823 Phone 808) 573-0663 Fax

E-mail: stoneman@maui.net



(F)

Aloha

Here's the estimate to complete Marko's video project. Currently available is a VHS copy of a one-hour sample video - offline quality. The finished video will be cleaner, higher quality and utilize more graphics.

I think you'll find that his presentation on video presents his information in a clear, concise manner, more easily understood than his book. Upon completion of the video project, we intend to build a curriculum for kids utilizing his math. We have three schools here on Maui interested in pursuing this line of learning - Haleakala Waldorf school, Montessori, and Seabury. The response of both the students and the instructors was amazing - to see the light of understanding go on was thrilling. We also videotaped his presentation to the Seabury school math class and to a group of computer designers and scientists at Maui's Hi-Tech Park, which we may incorporate into this video or may release separately at a future date.

Please feel free to call me with any questions or comments.

Aloha,

Bob Stone



Barney Agor
Shema Gentile Disciple/Evangelist/Pastor
74-5100 Kumakani St.
Kailua-Kona, Hawaii
P.Z. Exempt 96740
Tel.: (808) 326-1863

•Video & Radio Producer / Creative Director / Videographer / Editor •Services and Consultation
•Hawaiian Christian Television•Thunderheart International Ministries
•Controversy•Interlude•Crosswind-Let's Read the Bible

To: Dr. Earl Bakken Toroid Aerodynamics

Re: Proposal for Video Production Services

July 23, 1998

Dear Dr. Bakken;

At the request of Marko Rodin, I am forwarding this letter to you as my introduction and proposal for video production services.

As designated in my letterhead, I am engaged in providing all related services for air ready video and radio programming. My personal on going programming has been viewable on cable public access for the past four years. I have logged 130 one hour video programs under the series names of Controversy, Interlude, and Crosswind. I have also produced and/or directed another 50 programs for various clients in that same period. My services begin at consultation for inception, all production phases including scripting, videography, and editing, to the completed product and distribution to the national cable public access system. My advantage in this field is that I am a very good storyteller and commentator.

With specific reference to your project, I am familiar with technical content and have personally financed production to preserve this information. It is my hope that you will understand and appreciate that in devising a proposal for this project that by its uniqueness mandates an untraditional approach.

Finding a figure for adequate compensation is hardly justifiable within norms. The vision and creativity of this project is all but consuming of anyone understanding the ramifications of the Rodin coll. My involvement and thus my experience gives me first hand knowledge that work in terms of a 40 hour week is inadequate at best. Given the exorbitant number of hours required to tread a new frontier multiplied by my published rate of US\$135.00/hr. would require deep financial pockets. Please forgive

1766-151-1827



Matter/Rivera

Matter/Rivers Productions, inc.
3 Bethesda Metro Center, Suite-700
Bethesda, Maryland 20814-5330
Tel: 301-961-1955 Fax: 301-961-1956
bmatter@csis.com/ nivers@pscbell.net

Principals: Bruce E. Matter Richard Rivera

July 17, 1998

Mr. Marko Rodin Toroid Aerodynamics P.O. Box 1690 Koloa, Kauai, Hawaii 96756

Dear Marko,

Thanks for taking the time to explain your work to me. It sounds incredible, and with any luck and lots of time, I might even actually understand it! Anyway, the purpose of this letter is to set down on paper what I would need in order to write and produce a television documentary based on your work. Please understand that this is not based on my personal needs but on what I believe a network like Discovery would require before it would agree to fund a documentary.

Perhaps the most important ingredient is visual documentation. By that I mean, the documentary must visually demonstrate a central part of your work or a prototype of your work. The demonstration doesn't have to be entirely successful, but it must be convincing enough to greatly impress respected mainstream researchers, preferably researchers who beforehand had serious doubts about your work.

Since as the connent, Marko, you have no credibility with a network like Discovery, it is essential that other well known or well connected researchers be willing to vouch for your work on camera. And I mean these scientists have to be widely recognized as leaders in their fields. They have to be heads of science departments at major universities, or project directors for the nation's top science endeavors (ie: the international space station).

If you can publish a book about your work, that certainly is a plus. If the book is to be given a major marketing push that's a very big plus. But it's also important that a network like Discovery doesn't get the feeling that the documentary is just another method for marketing the book. Because they will not accept that. There has to be a very dramatic "something" that another method for marketing the book. Because they will not accept that. There has to be a very dramatic "something" that occurs explained by in the documentary that gives the network a marketing hook of their own to draw viewers to the show. Occurs explained in the documentary that gives the network a marketing hook of their own to draw viewers to the show. Example of something dramatic would be unequivocal proof of the existence of black holes, or an experiment that seriously suggests the ability to create man-made black holes. Or something that strongly intimates the feasibility of an anti-gravity of an anti-gravity of an anti-gravity of the strongly intimates the feasibility of an anti-gravity of the strongly intimates the feasibility of an anti-gravity of the strongly intimates the feasibility of the strongly intimates the feasibility of an anti-gravity of the strongly intimates the feasibility of the strongly intimates the strongly intimates the strongly intimates the strongly intimates the strongly intimates the strongly intimates the strongly intimates the strongly intimates the strongly intimates the strongly intimates the strongly intimates the strongly intimates the strongly intimates the strongly intimates the strongly intimates the strongly intimates the strong

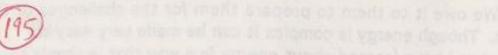
Of course, no matter what, there's no way I can guarantee Discovery will be interested in the project. But I really can't imagine, if you can demonstrate even a small part of your work in a manner mentioned in this letter, that Discovery could be anything other excited about producing a documentary about your work. So please keep me informed about your progress, and we'll talk again soon.

Sincerely

Richard Rivera

(194)

Childrens Book



Dear Dr. Earl Bakken,

This letter is to propose the collaboration of Marko Rodin, Eric Ewing and myself, leather Smith. We wish to create an elementary school level curriculum based on Marko's vork.

It is my pleasure to have become acquainted with Marko Rodin over this last year. As have learned of his work it has become clear to me that I have stumbled across a rare and

inique opportunity to change the world in a positive and profound way.

Until now we have believed the matter of creation to be dead, without consciousness or intent. We have seen matter as just some random chaos haphazardly becoming coherent. low, through Marko's work, we can see there is a basic and vastly intelligent consciousness it the heart of all creation, that is very much alive. Marko has mathematically proven and conceptualized the invisible link between all things in creation. He can show us the elationship and interplay of the invisible with the visible. Because of Marko's work we can o longer deny that our every action affects everything else in creation.

Because we do not understand this intimate connection we are destroying ourselves. e have told ourselves that technology can save us, can solve any problem. We have failed o recognise however, that technology without HEART, without the understanding of the nterconnectedness of all life and the Inherent intelligence in nature is the very thing destroying us. We can not go back in time and erase the technology that we have created. Nor can we afford to ignore what indigenous peoples have been trying to tell us all along. That we are intimately connected to the earth and all that is. Harmonizing technology with the needs of the earth and consequently us as humans is paramount to our survival. I have always yearned to find a way to make this possible. Marko Rodin's work makes this a eality in a way not imagined before.

The understanding of spirit and matter is my life passion. Understanding how energy noves through and transforms the human being in mind, heart, body and spirit is my greatest interest. My deepest knowledge of spirit and matter has come in comprehending the process of transformation of fear and pain to love. I have done this through healing myself of asthma. I have spent the last six years keenly observing the interaction of thought, feeling, action and experience. Their interplay directly reflects and effect ones physical well-being. I have intimately come to know how all things in creation are connected. I experience spirit and matter as one. The personal transformation gained from

this insight has changed my life in a profound and positive way. It has charged my impetus share what I have learned with others, especially children.



BUDGET FOR 1 YEAR

WAGES: \$40.00 per hour

40 hours a week

\$1600 per week

option for overtime at \$40 per hour

\$100 per day on days of travel to and from Kuaui

* 6 times a year = \$1,200 annual

40 weeks = \$64,000 annual

WORK LEAVE: 3 weeks vacation

9 weeks schooling to continue experiencial study of subtle energy

12 weeks leave total

QUIPMENT: Mac G3 laptop with modum (compatable with Marko's equipment) \$4,100 \$300

Printer \$600 *Fax

*Office supply (fax & printing paper, postage, printer ink, computer discs,

\$150 monthly = \$1800 annual folders, etc.)

TRAVEL: As needed R/T airfair, car, food and accomidations from San Francisco to Kuaui. Costs calculated on 6 trips over the year, for the duration of 1-3 weeks each

HIGH END COST 3 WEEK STAY, R/T: LOW END COST 1 WEEK STAY, R/T

airfair \$200

\$525 car rental \$200 \$1,500 hotel \$500

\$840 food \$280

\$3,465 6 times = \$20,79 annual \$1,180

\$600

Marko, You have shown mathematically the - ransformation of all things. The transfor mation seif energy to-matter back to energy again The synergy of creat 5TO me this shows in at encertain terns the circle of like How everythis in creation is connected at its base les 10 mater what way one looks at Encation. There is a knowable puttern That displays this interconnection. A you have shown, this can be seen in the process of expansion or contract The nitrocosm to the macrocosm. owner the invisible as well as the relationship or interplay of the invision with the visible. I would say you have now given humanity a way to dimensionality of reality that we really exist in As the Earth was once belied to be Mat and we eventual discovered of to be wind. So too did -we once believe the matter of creat to be dead. Without consciousness or intent, just some random chaos the haphazardly becoming concrat. Non we can see that there is a basic Create PDF files without this message by purchasing novaPDF printer (http://www.novapdf.com)

Parker School ank Ladwig

rdinator of Community Involvement



1-30-98

Kanai Co. Dupt 1) Education Atta Curriculum + Instruction

Re: Marko Rodin

Dear administrator: It is a pleasure for me to recommen Mr. Rodin as a lucturer in your schools in th fields of moth & science. He spoke to a large going of high school studies yesterday and easily held their attention for 11/2 hourse. He provoked good questions and serval studits stayed after class to ask more questions. He is an interesting individual and Kie theories are fescinating.

Sinceley yours.

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FINANCIAL PROPOSAL

Dear Marko:

Enclosed you will find the step by step illustration of the caterpillar-to-butterfly learning guidelines for children from ages _____.

STEP #1 ENCOURAGING LEARNING

The idea to teach children should be based on having fun while they learn how to live and have a healthy and happier future for themselves and those around them. I emphasize love, guidance, compassion and leadership. The children at no time should feel like they are overpowered with too much work, so making learning inviting and interesting is my main goal. To this day I have a lot of kid still in me, that's why I enjoy life so much.

STEP #2 SUPREME BUTTERFLY DESIGN FEATURES

The enneagram will have it's own pages for children to study and take notes from. Supreme butterfly character guidelines consist of fun and silly names to ensure that the children are motivated to learn. Throughout the rest of the numbers the characters get more serious as the learning skills progress. There's a butterfly chart for different colors and creeds of children to choose and learn from. Variety is the spice of life!

COST:

For designing and artistically integrating your theories, concepts and applications to create a fun and interesting children's learning publication, \$500.00 per week should cover working on the project, with a cap of \$20,000 for one year of involvement. These figures are exclusive of my rent and basic living expenses, which will not exceed \$800.00 per month.

Alcha,

Eric Ewing: Eric Ewing

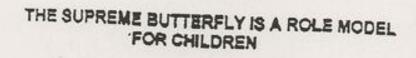


From: Eric Ewing 5554 Fairview Pl. Agoura, CA 91301

7. The ending stage of learning will be the butterfly in its final growth stage, which would be a full grown beautiful butterfly. Also stressing how God plays a role in maintaining the power reached. Also explaining what the caterpillar to butterfly stages mean in terms of progression. Explaining how the butterfly is environmentally conscious, because otherwise there would not be any butterflies at all! The caterpillars' diet consists of learning more. So, the more they learn the bigger they get. He gets bigger as the pages progress. Once they have reached the adult butterfly stage they will grow an electric backpack to fly on their way to the future to further their progression as pilots of the universe.

H WEIVER





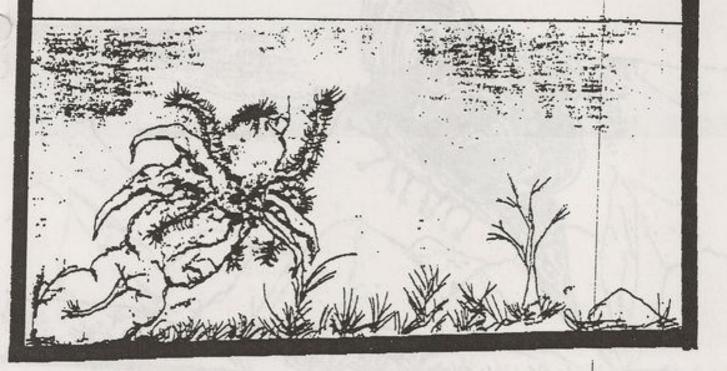






PAGE #4

Breaking out of the cocoon, seeking more knowledge.



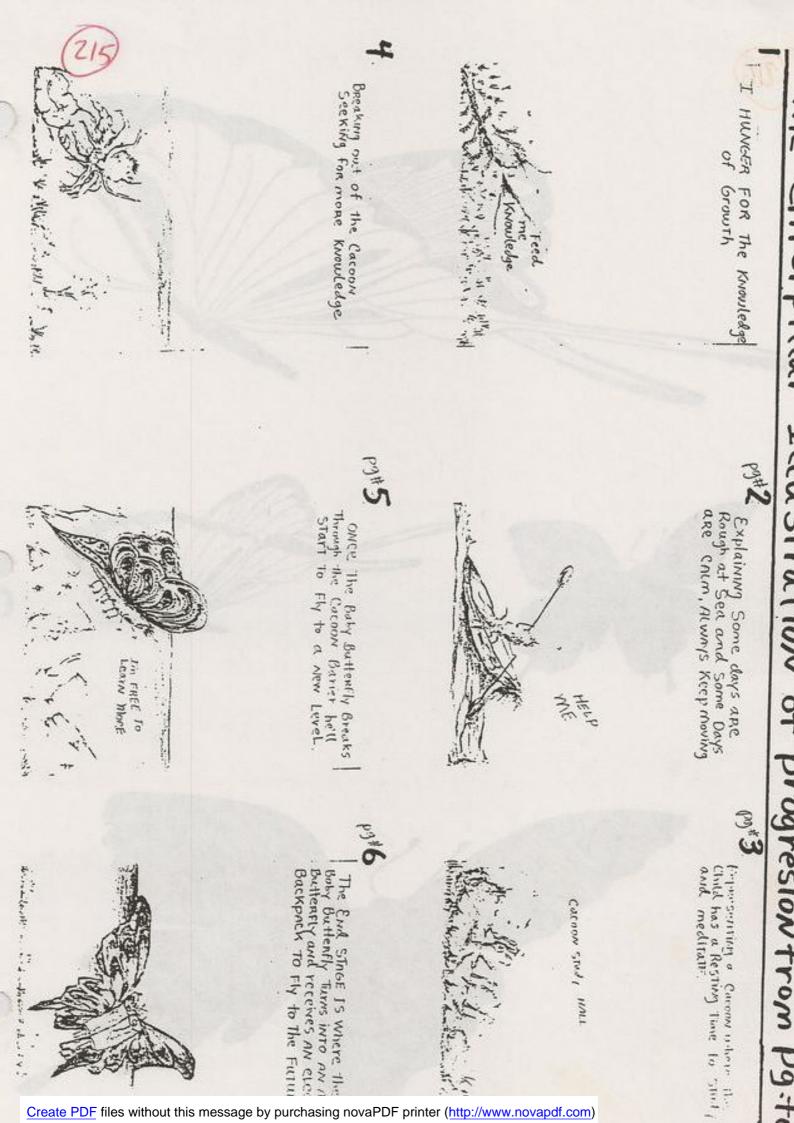




PAGE #6

The end stage is where the baby butterfly turns into an adult butterfly and receives an electric backpack to fly to the future.





From: Eric Ewing 5554 Fairview Pl. Agoura, CA 91301

SUPREME BUTTERFLY CHARACTER LIST 21 JULY 1998

- 1 is <u>Fun Fun</u>, because for in the beginning it is fun because they start their winding process to success.
- 2 is <u>Lou Lou</u>, Lou Lou represents keeping the guidelines silly so the children won't feel like there's a lot of pressure in the early stages of learning.
- 3 is <u>Tweety Dee</u>, the Tweety Dee bird represents a bird which flies the coil winding around in a toroidal motion.
- 4 is Morris, meaning more ongoing current flow or repetitive motion.
- 5 is Alive, meaning a live wire connecting two points together for making electricity.
- 6 is Kicks representing having a kick, in essence a shock of electrical flowing force.
- 7 is <u>Heaven</u> because it's revolutions are almost completely around the circuit of life. Heaven can be an incentive to achieve the highest possible. Heaven is omnipotent, it's everlasting, it is everything that is good.
- 8 is <u>Create</u>, representing creation, something that has been created. The end result, perfection. Once the final stage has been achieved. The coil is all one unit, creation.
- 9 is <u>Fine</u> because the coil wire is so fine, fine is divine. <u>DIVINE FINE NINE</u> never divides. It always stays the same.
- 0 is Not, because it doesn't exist, yet here it is, doing all sorts of amazing math stunts.

NOTE: THE MORE THE NUMBERS INCREASE THE QUICKER THE CHARACTERS MOVE IN SPIRALS.

From: Eric Ewing 5554 Fairview Pl. Agoura, CA 91301

(ei)

7. The ending stage of learning will be the butterfly in its final growth stage, which would be a full grown beautiful butterfly. Also stressing how God plays a role in maintaining the power reached. Also explaining what the caterpillar to butterfly stages mean in terms of progression. Explaining how the butterfly is environmentally conscious, because otherwise there would not be any butterflies at all! The caterpillars' diet consists of learning more. So, the more they learn the bigger they get. He gets bigger as the pages progress. Once they have reached the adult butterfly stage they will grow an electric backpack to fly on their way to the future to further their progression as pilots of the universe.

Not can be afford to ignore what indigencie peoples have been toping to tell up That we are interestely connected to the earth and all that is, its mentions or our survival and consequently us as humans is parameter to our survival meads of the earth and consequently us as humans is parameter to our surviv

the process of transfermation of fest and pain to love. I have de marsell of settena. I nave spant the last six years keamly observe transport, feeling, goslon, and expendences. Their interplay of each

Children are our future. We owe it to them to prepare them for the challenges of the future in the best way we can. Though energy is complex it can be made very easy to inderstand. I want to share what I have learned about energy in a way that is simple to imprehend. With six years of study and one year of teaching basic energy awareness asses to ages 13-50, I feel qualified to explain Marko's work in a simplified version.

At this time the public school system gives no understanding of these concepts. No understanding is given of the connection between spirit and matter and our intimate connection with the earth, or how this relates to us personally. Public schools do not have the materials to teach and give comprehensive and experiencial understanding. we wish to collaborate in explaining in detail the frontier knowledge that Marko's work entails. His work can do this. This program will include a series of books, games, activities, workbooks, worksheets and teacher guidelines. We want not only for the students to understand through classroom environments but, in real life experience as well.

The first childrens book has already been started. This book outlines the entire curriculum through it's story. Our goal is to finish the storybook and completely cover the accompanying materials, including the teacher's guide, games, activities and workbooks for the first grade level in one year. I will be contributing my efforts in terms of expanding the text of the storybook as needed and writing accompanying materials. I will simplify larko's work so that a first grade student may begin to open to an understanding of the

nergy around them.

The following pages gives the estimated overhead and wages I need for full time work

ver one year.

I have unbounded enthusiasm to created these materials in collaboration with Marko and Eric. It would be more gratifying than anything I could think of to be able to contribute this way. To pass on a worthwhile understanding of this to our children is my greatest coirc and recponcibility. I hope you, Dr. Farl Rakken, will find it worthwhile to enable this collaboration through your financial support.

Sincere

Meather P. Smith

P.O. Box 734

Miranda, Ca 95553

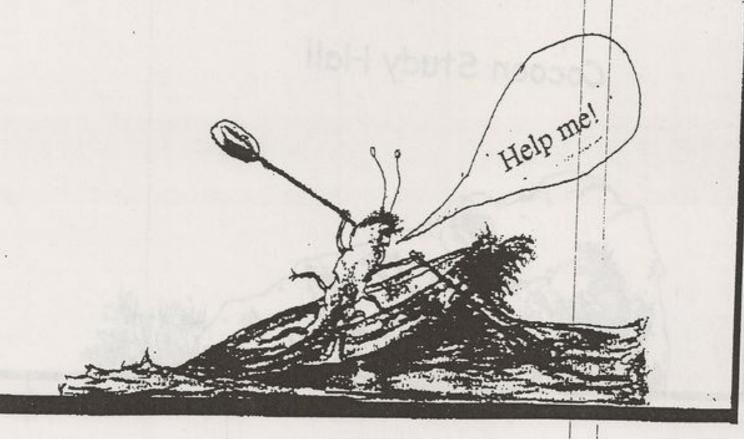
(707) 943-3678





PAGE #2

Explaining that some days are rough at sea and some are calm, always keep moving.





- So it works like the 3-6-9? It is different but it is modeled after the same relationship.
- Exactly. Totally different but totally redundant in modeling that principal into the lower dimensional world. It is in a way so obtruse and invisible as to not be discernable. It becomes very apparent when put into what is called a quad-rule tablet. When it is all inked out on a sheet of ruled paper using the Toroid Map.
- S. Is that the model for the invisible realm that has not been mapped out yet?
- R. That is the ability of it because you can find missing tiles that they can't model. See Tesla's work was primitive because he could not measure the space in between his wires where there should be no wire put. Where to put the gap spaces to have a higher dimensional effect kick in. Thus he was never able to get that higher energy control that he wanted. Everything is a hierarchy, a theophany, a ladder and everything bows down and prostrates and worships the Supreme Being. God, our creator, who is the fashioner everything is but a mirror and a sign to His Greatness. So whether we know it or not we are bowing down and prostrating because just as our feet are anchored to the earth, to the center of the planer, so are we anchored to the Creator. These emanations create what is called reticulation and everything is reticulated by God. No matter what God is left. We are caused to bear witness to a greater knowledge, matter what God is left. We are caused to bear witness to a greater knowledge, wisdom, energy and existance then ourselves, that sustains us and animates us.
- .S. That is us.
- R. It is the source of illumination, divine guidance and divine inspiration which is
 the apex of consciousness. The secret of heavenly guidance and communion with
 God.
- Now the ultimate coil, the ultimate machine is of course the human brain, the human temple. The human brain is the ultimate antenna and it transmits and receives. Only when we learn the Most Great Name of God and how to say the words of God silently do we get it right. We can tune in and harmonize with God. Then he says we have free volition, free will. He says we then become a hologram and a paradigm of him. We can cocreate and manifest. That is why he says in the scriptures; Oh my servant obey Me and I shall make you like unto hologram and a paradigm of him. We can cocreate and manifest. The brain, I believe, isn't so much for thinking as it is for causing miracles to happen. All numbers really exist as what are called Stationary Vector Interstices(?).

They are the result of the positive Aetheron Flux Emanations. Thus the numbers don't move, it is the calculations and the functions that are actually moving. The numbers are rigid representing elementary particle physics. The functions

condenses and expands based on it's distance from the center of mass. Only this occupy. As well, they measure incremental space one unit at a time. That unit are not rigid but actually extend and contract the amount of volume that they numbers system allows us to model accurately and show numbers on a ruler can model accurately a condensed matter physics. Coupled with tiles this system. Again it comes back to the underpinning geometry of the universe which coordinates system. You might say it is the true Golden Means coordinates R. - Cont...These numbers horizontally lining up create natures true golden

can not be created or destroyed. Because zero does not exist numbers can only invisible Z axis is your multiples of 7 and 2. So what happens is that a number keeping the phasing the same but changing your multiplication series. Then your So your vertical axis is I and 8 but your horizontal axis is 4 and 5. It is always Toroid Map you see all multipules of 4 and 5 going horizontally to one another. to one another. Then when you look horizontally on the Dandelion Puff Principal Map you can see multiples of 8 and 1 going in opposite directions, all vertically Thus 8 and 1 represent a vertical axis. On the Dandelion Puff Principal Toroid type of math can model that.

zero on a number line. It also applies to natural phenomenon. be transfered to other numbers. Before 1 was a 9 or 360, but never is there a

We can never totally freeze matter or it would cease to exist. You can never

totally arrest vibration.

.S. - Like how glass windows are actually liquid.

positive numbers. For example polar pairs always equal 9. 1+8=9, 2+7=9, 5+4=9. Principal Toroid Map. They represent opposite directions for negative and motions. On the symbol of enlightenment they are mirrors on the Dandelion Puff freezing. The polar number pairs are always exhibiting opposite direction can't stop the aetherons. Because you can't stop them, you can't get to absolute halving it. You never get to absolute freezing, it doesn't exist for matter. You have some heat left because you are only taking away percentages, halving it and .R. - Right. As we try to get to freezing, scientist have never done it. They always

So the first polar pair of I and 8, multiples of I ascend by units of I.

Multiples of 8 descend by units of 1.

1=0+1,01=4+8 bns 48=8x8 8=8x1 Z=1+1,11=2+2 bns 32=8x7 Z=ZXI E=2+1, 1=8+4 bns 84=8x8 9=9XL \$=0+4 pas 04=8x8 S=SXI 2=2+8 bns 28=8x4 セーヤ×し 3=4+5 bns +2=8x8 E=EXT 7=9+1 bns 81=8x2 Z=ZXI 8=8x1 [=[X[

Now the polar pairs 2 and 7: multiples of 2 are 2,4,6,8,10,12,14,16,18 reduced

tile. done before where you can assign a discrete number, a single digit, each to a the numbers. Each one number representing each tile. Again this has never been Celestial Mechanics in astronomy and astrophysics. So this is all revealed by only my math reveals it. It is also referred to as the Dark Matter in cosmology, Aetheron Flux Positive Monopole Emanations. No one has ever seen a Monopole, created) only 1/6 of that map is ever energized at any given moment by the matched together over the DNA helix (in this DNA helix map which I have Since there are 9 negative numbers and 9 positive numbers and they are all energization of any part of the DNA Triple Helix is only 1/6 at any given moment. comes on alone. Then both stands go off. That means that the ratio of dimensional aetheron flux located in the Major Groove energizes, activates and activation sequences of energization. Then they both go off and the higher They are never on together at the same time. They have different time moments, the aetheron flux and then the left helix goes on and the right helix goes off. represent all positive numbers alone. So the right helix goes on by itself from revealed by that is that one helix is energized by the aetheron flux which that are all positive are on the left double spiral helix. The significance being the 1-4-7 that are positive are all on the right doubille spiral helix and the 2-8-5 helix backbones made out of the 1-2-4-8-7-5 two family number groups is that So 3 and 6 are opposite directions of one another. The significance of the DNA 1+4=5. 5+6=11 and 1+1=2. 2+6=8. 9+6=15 and 1+5=6. 6+6=12 and 1+2=3. 3+6=9. family number group which is the opposite of 3. Now the 2-8-5. 8+6=14 and backwards: 7+6=13 and 1+3=4. 4+6=10 and 1+0=1. 1+6=7 (1-4-7) is the first if you remember 3 and 6 are opposite of one another because of the Yin/Yang, so family number group: 3+6=9. 6+3=9, 9+3=12 and 1+2=3. 9+6=15 and 1+5=6. Now second family number group: 2+3=5, 5+3=8, 8+3=11 and 1+1=2 (2-5-8). The third Yin and Yang. Because 1+3=4, 4+3=7, 7+3=10 and 1+0=1 (1-4-7). Now the DNA backbone. Now a family number group is always separated by 3 and 6, the create the doubling circuits and there are two doubling circuits. One for each and over again. It is recursive. So those three family number groups actually 2+5+6=13 and 1+3=4. So the pattern repeates periodically (in sequence) over

S. - What is a tile?

I call it a Diamond Quantum Tile. Each tile represents the surface topology of DNA. How I get these tiles is I created my own technique by making what is called the Defraction Grading or Intrafraronamy(?) pattern, sometimes called the Mourae(?) Pattern seen when we put two window screens overlapping one another. We get an enhanced larger scale mosaic magnification. So by me taking the front side and doing a stereoscopic over lapping view with the underside in a silhouette wire mesh mode. I am able to do any level of magnification, silhouette wire mesh mode. I am able to do any level of magnification, infinately small beyond a septrillion. I am able to see even more detail then an infinately small beyond a septrillion.

dimension. The Fourth (dimension) is always traveling in the reverse direction to the number 9. When the 9 is positive then the 3 and 6 are both positive. The 3 and 6 are negative. When the 9 is negative the 3 and 6 are both positive. The 3 and 6 are the Magnetic Field and they are on the Fourth Dimension.

- So the 9 is like the doorway for the Third and Fourth dimensions to be connected?

The Third and Fourth Dimensions are not connected. They are seperate. They are interwoven together. The 9 is the warp to the woof of everything, the fabric, the brocade, the tapastry of the universe. The number 9 represents the underpinning geometry of the universe. When you look at a train coming toward you, it could be ten miles long and you can't see all the box cars. All you see is the engine locomotive. That is what the number 9 is. It is coming straight at the engine locomotive. That is what the number 9 is. It is coming straight at the engine locomotive. That is what the number 9 is. It is a straight at

you, it could be ten miles long and you can't see all the box cars. All you see is the engine locomotive. That is what the number 9 is. It is coming straight at you, but if you were to see it from the side you would see that it is a straight line, linear, huge train. It is the warp to the woof, it is what keeps the universe together. You can call it love too. As the saying goes, love makes the world go round. That is why I call it God's neurons. It is God's all seeing omniscience. It is how God instantly knows everything that is going on everywhere. In the Bible is how God instantly knows everything that is going on everywhere. In the Bible is how God instantly knows everything that is going on everywhere. In the Bible is how God instantly knows everything that is going on everywhere. In the Bible is how God instantly knows everything that is going on everywhere. In the Bible is how God instantly knows everything that is going on everywhere. In the Bible is how God instantly knows everything that is going on everywhere. In the Bible is how God instantly knows everything that is going on everywhere. In the Bible is how God instantly knows everything that is going on everywhere. In the Bible is how God instantly knows everything that it is provided in the Bible is how God instantly knows everything the saying th

Anercia Aetheron versus a static Lumitherious (luminiferous) Fluid Aetheron which it is not. It turns out that the Aether that all of our ancestors believed in, that they always thought the voided universe was filled with (this luminiferous fluid aether) does exist but not as static gelolaquacious aether that is dormant. Rather as an anercia aether that is pulse surging from the that is dormant. Rather as an anercia aether that is pulse surging from the center mass of every atom, the center mass of the nucleous, the center of the center mass of every atom, the center mass of the nucleous, the center of the

Orgone, Einstein's Tacion, Maxwell's Monopole. Einstein also refers to it as an

earth, the center of the solar system and it is what drives a black hole. It comes out of the center of the singularity of a black hole. It comes out of the hole where the vortex is. It is not empty at this vortex hole but everything on the third dimension moves around the lip of this vortex. That is why water can not block a hole. There must be a hole at the center of everything for it to be a not block a hole. There must be a hole at the center of everything for it to be a moving, dynamic, flowing state of condition. In this hole is this higher

moving, dynamic, flowing state of conditions. In the manating out. We live in the dimensional Flux Field literally radiating and emanations were taken away the universe would kingdom of eminations. If these emanations were taken away the universe would instantly become destitute and viod. It would disappear, these emanations are instantly become destitute and viod. It would disappear, these emanations are

At General Dynamics they said what I have discovered; this Aetheron Super Flux Particle is the source of the non-decaying spin of the electron. It comes in a special trinary firing rate. This Aetheron Flux Super Particle goes in a trinary pulse surge firing rate and that is why I have three family member groups of numbers. (3-9-6, 1-4-7, 2-5-8) That is why 3,9 and 6 always come together. 3 and 6 are the Magnetic Field on the Fourth Dimension and they represent the Yin and 6 are the Magnetic Field on the Fourth Dimension and they represent the Yin

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Earthquakes, fault lines and building fractures, where the structures fall apart, always break apart at their shears. It is predetermined if you know a building. If you know what kind of soil it's on, what the structure of the building is, if it is concrete or whatever. You can predict what columns and where they are going to shear and break at.

Now DNA uses this higher dimensional Flux Field to control cellular communication. To control what is called Cleavage and Receptor Sites for the DNA sequencing molecules. This is very important because this then controls our genetic coding. Now how this is controlled in DNA is through what is called Nested Vortices. Only my math, which I call Polorized Fractal Geometry or Vortex Based Mathematical Learning. Only my math can model these Nested Vortices. DNA has something very unique......and again DNA is significant because of this Morphogenic Field caused in DNA the Helixal Spiral to occur.

- 5. So it gives the template for the DNA?
- R. Yes, the Aetheric Template. If it wasn't for the higher Dimensional Flux Field you would not have a Helixal Spiral. That's what DNA is, a Helixal Spiral. Now at this Helixal Spiral there is what is called Information Incription Duplication. How that information is preserved, transcribed and then duplicated is through Information Inscription Incription. Information incription takes place through these Nested Vortices, which then induce the mitosis in DNA. Mitosis is referred to as DNA sister strand unraveling. What happens is the Morphogenic Field's Nested Vortice's World Boundary Condition lines align up together and that causes the repulsion of the sister strand, making it to unravel. So this Polorized Fractal Geometry models these Nested Vortices. There is no equipment today that can observe this. There is no technology that has the minute resolution that is finely attuned well enough to be able to see and observe these infinitesimally small Flux Fields interacting. These Flux Fields are referred to in superconductivity as Underpinning Nested Vortices. They are crucial for all our DNA interactions to occur in. When you can control these Underpinning Nested Vortices in our DNA, then you can reverse aging, eliminate all diseases, produce unlimited food and clone youself.
- This is what scientists have been unable to do. All the mutations that are getting created out of messing with the DNA, how it is not turning out exact duplicates is because they are missing that information.?
- Right. Nobody can do this today. They have been missing the invisible part. They are always working with the visible parts, unaware of the invisible part. Polarized Fractal Geometry is a fractal modeling of DNA and protein folding and diseases as well. This is the only form of modeling that can model accurately in a form of fractals. But not the present day form of fractals that only

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would not be curved or wrapping around something if it did not have the tree branches. So this Flux is an invisible non-bending, linear emanation particle that is warping and curving our space reality. Actually it is not space that curves. Space is nill, it is a void. They are incorrect when they say space curves. What is curving is, as matter moves through space it is warping and it is precessing. Precession always occurs to matter on a third dimension. So as matter precesses it is because it's being warped from this positive emanation at the center of mass. It comes from the center of every nucleus of every atom, this Flux. So again, if you were to take away this emanation the universe would become destitute and void.

- It would stop all movement?
 - Yes. It is the source of all vibration. Thus vibration can never be fully arrested and stopped because of this energy, this emanation. It penetrates everything and it is irresistable. It is literally God's neurons, this Flux. It is how come God is referred to as omnisceint. It is literally how God is all seeing. As it moves from the center of mass it is like the queen on a checker board. It can go in any direction it wants to go in. It is represented by the number nine (9), which never changes.

Zero (0) is not a number, it is the absence of a number. Zero (0) times anything is always nill, nothing, zero. Where as a number can not be created or destroyed. It is like energy transformation. You can transfer energy to matter or matter to energy (but nothing is lost). It turns out that the number 9 is the opposite of 0. Zero (0) times anything is always nothing. 9 times anything is

always whole or complete, which is the 9 itself. Sure enough:

1x 9=9,

2x9=18 and 1+8=9

3x9=27 and 2+7=9

4x9=36 and 3+6=9

5x9=45 and 4+5=9 6x9=54 and 5+4=9

7x9=63 and 6+3=9

8x9=72 and 7+2=9

9x9=81 and 8+1=9

So the number 9 is a linear staight line number, which actually is this Flux. Remember I found that numbers are not modeling something, they are the model. In other words, numbers are real. Nature is expressing herself with numbers and in this case the number 9 is an Aetheron Flux. There is nothing else that is straight and linear, only the number 9 is. Only number 9 lines up over the infinity epicenter in the symbol of enlightenment. Only 9 is at the top, it is always at the zenith, the apex. It represents wisdom, perfection and it makes a diamond which represents perfection. If you connect the 9 over the vortex, the

knew there was this much food. I don't really claim to be of these talents or anything. Except I have a strange ability that if I focus and I concentrate I get the answer to things. All I do is focus and concentrate and I get the answer. But to me that's hard work, focusing and concentrating. I'll do it with the tools I have and work at it. To me having then had the answers and going back and seeing that I had nothing to begin with, very little. It is a miracle to me to have accomplished what I've done.

We are all suppose to be holograms or paradigms of God. We're all suppose to be co-creators and we are suppose to manifest things. That's why in the (Ba'hai) scriptures it says: Oh my servant obey me and I shall make you like unto myself. I say be and it is. I shall say be and it will be. So manifesting is the purpose of the mind and the brain, I think. So I'm always careful not to think too much. I

think that is a misapplication of the brain.

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- It is important that we are responsable for what we are thinking about.

- I agree with that too. And not to over conceptualize to the point where it becomes a problem.
- To the point where you forget how to feel about it, or what you feel about it.
 It's a balance to walk. To be in alignment with each other.
 - My favorite topic is paranormal psychology in the brain. That's where I really come from. That's how I learned my math, my math is a spin-off. My real topic is the missing intelligence of the brain and how to tap into it. I call it Life Giving Bio-physical Harmonics or Bio-physical Harmonics for short. The topic goes into what is called Neurogenesis, that is the closest thing in medicine to it. In physics it would be Sonophysics. How they do what would before be considered impossible things with sound. I'll discuss all that stuff.

The Third Helix is the invisible higher dimensional helix that is inbetween the two double helixes, that's represented by the Major Groove. That deflects the

two back bones of the helixes and I'll explain that.

I never do anything to save face. I don't mind how much anything embarasses me. The most embarassing thing about my knowledge and discovery is that it can be said in three sentences.

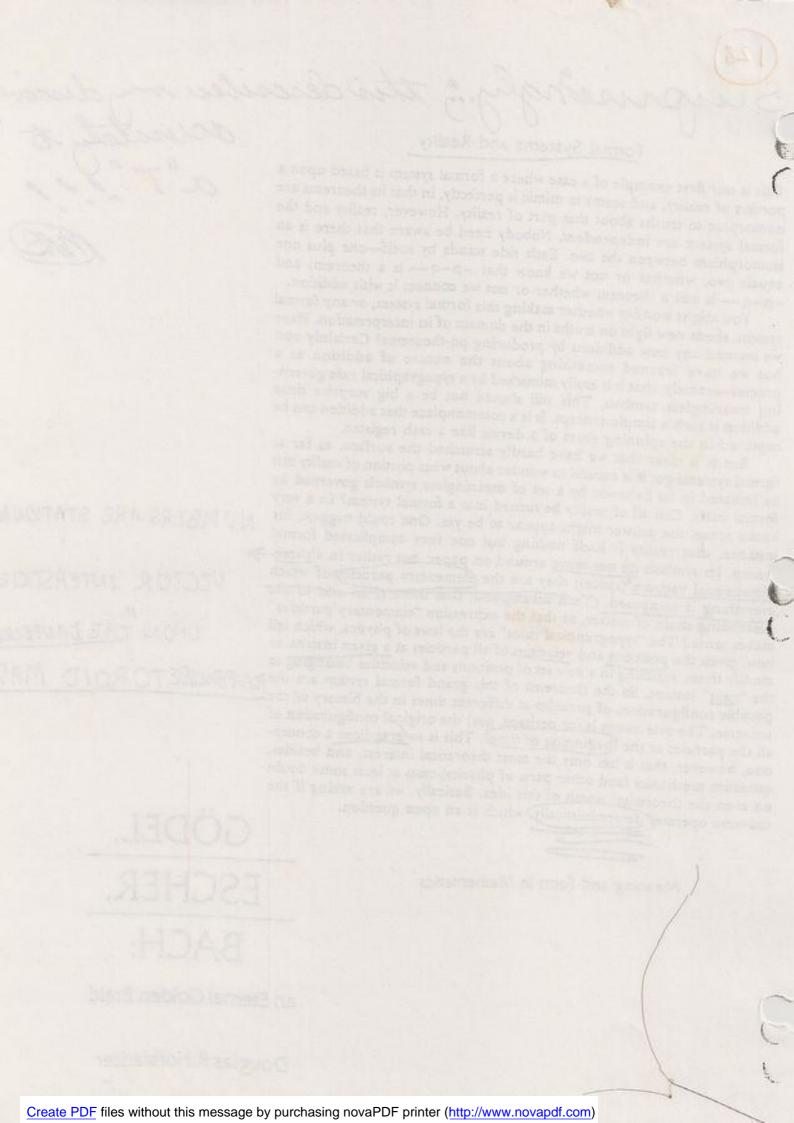
1) I know the number sequence pattern or the numbers that are Electric

2) I know the numbers that are Magnetic

3) I know the numbers that are the Aetheron Flux.

That is the basis of my discovery. It's too simple, it's lunacy. There is not suppose to be and electric number. Electric number! But it's a fact. There are certain numbers that are electric and there are certain numbers that are not. I will try to explain that. It's so simple. I never clutter or confound or try make to appear complex something that is not. I have such an oversimplification







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most popular scenario among cosmologists these days, one called "cold dark matter," takes advantage of the fact that dark matter doesn't interact with light or other kinds of radiation. The incredibly intense radiation that prevents ordinary matter from forming passes through concentrations of dark matter as if they were ghosts. This means that dark matter could start forming into clumps early on, when things were still close enough together for gravity to hold sway. These aggregations could easily have formed the dark equivalents of galaxies, groups, clusters and superclusters. Then, when atoms were able to form, ordinary matter was attracted to these clumpings like filings to a magnet.

If this scenario comes anywhere close to describing what actually happened, we should be able to see the ordinary matter clumping together soon after the atoms formed. In fact, COBE measures radiation that was emitted about that time. The pattern astronomers see in its images is unequivocal—visible matter in the Universe was highly clustered, even back then. If, as most scientists believe, this clumping was caused by the presence of dark matter, then the "ripples near the beginning of time" tell

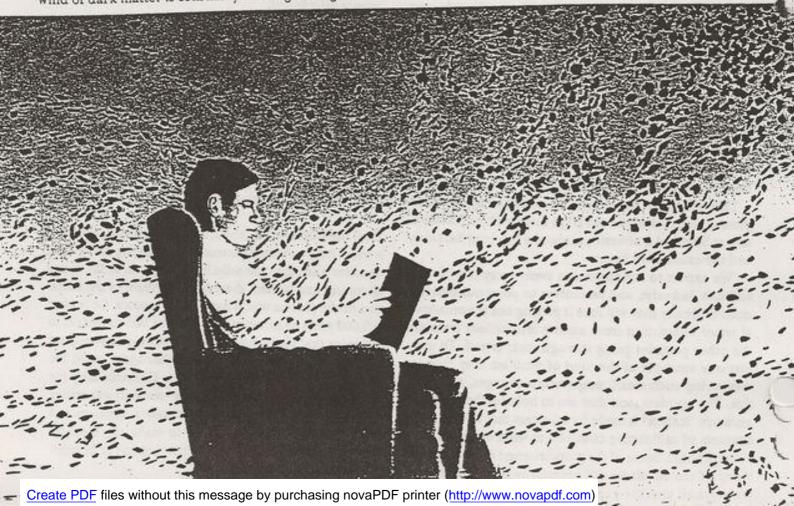
us that dark matter has determined the way the Universe operates almost from the beginning. Given that it will also determine the end of the Universe, you have to come to the conclusion that ordinary matter—the sort of stuff we're made of—just isn't terrifically important in the grand scheme of things.

Almost every scientist I talked to referred to this discovery as the "ultimate Copernican revolution." Not only is Earth not the center of the Universe, they pointed out, not only is the Sun not the center of the Milky Way, and the Milky Way not the center of the Universe, but visible matter, which we always considered the very fabric of the Universe itself—the stuff we have spent millennia trying to understand—turns out to be something of a cosmic afterthought.

Are they discouraged by all this? If they are, I certainly didn't detect it. Perhaps David Schramm put it best. Leaning back in his chair, looking out his window, he mulls things over for a moment before smiling and delivering his assessment of the philosophical impact of dark matter:

"I guess we're just not made from the Right Stuff."

If the view of the majority of astronomers is right, a wind of dark matter is constantly blowing through us.



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Berkeley, is one of the people leading this particular search. The basic idea is that a telescope at the Mount Stromlo Observatory in Australia is pointed at the Large Magellanic Cloud (a small "suburban" galaxy about 179,000 light-years from Earth), and elaborate electronic detectors record short-term brightening of the stars as they pass behind the posited MACHOS. "It takes us about five minutes to take one picture," says Stubbs, "and we monitor 10 million stars each night. If the galactic halo is made from MACHOS, about one star in five million should have its light focused at any given time. Our goal is to take enough data to say for sure whether the MACHOS are there or not."

This search by astonomers from the CfPA, Mount Stromlo and Lawrence Livermore National Laboratory began in late 1992. It pushes the limit of what can be done both in terms of measurement and data analysis. The detector is a high-tech version of the chip in your camcorder, and the observers monitor two different colors to make sure that what they see is not just a star flaring up. (Focusing by MACHOS would cause both colors to increase in intensity by the same amount; this would not happen if their brightening were because of something happening inside the star itself.) The "firehose of information," to use Stubbs' phrase, that results from these measurements corresponds to having to read three volumes of the Encyclopedia Britannica for each picture, then checking to see whether each word matches last night's version. "Even if we don't find MACHOS," Stubbs points out, "this will be the first time anyone has monitored this many stars over a long period. There's bound to be some interesting astronomy in our data."

But what if the dark matter is really something new, as most cosmologists seem to expect? It would be spread loosely around the Universe, and wouldn't be nearly lumpy enough to be seen in the searches for MACHOS.

Trying to catch a mystery particle

To get some sense of how scientists look at this question, I went to the CfPA, an institution that was set up for the express purpose of using the techniques of physicists to explore the origin and structure of the Universe. There, physicist Bernard Sadoulet, director of the Center, and his group are building the experiment that may well tell us what the Universe is mostly made of.

A pleasant, slender man with a gray-flecked beard and a scholarly manner, Sadoulet takes delight in laying out the logic of his experiment with Gallic precision. In an office whose walls are lined with color photographs of galaxies and whose windows look out on redwoods, he draws a flow chart to illustrate his thoughts.

"The Big Bang produced all the particles we know about and all those we don't," he notes. "Some of them

only 10 to 20 percent of what's needed to close the Universe, it could all be in MACHOS or something similar." He draws a short dead-end to the left on his flow chart. "If there's more," he says, brightening, "it can't be baryons." He then goes off into the zoo of possible elementary particles that theorists think might exist, discussing how each of the strange beasts might be detected. Like most physicists these days, he thinks the best bet is that dark matter is made from a class of objects known as weakly interacting massive particles. Their standard acronym—wimps—explains why scientists were so pleased with the term "MACHOS" for the competition.

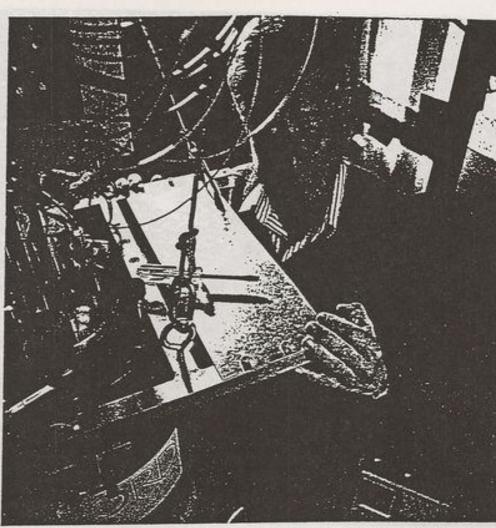
WIMPS may be many times heavier than the protons and neutrons that normally make up the nuclei of atoms, but they don't interact much with ordinary matter. Millions of them could be passing through your body right now, for example, without disturbing a single one of your atoms. That's good, because if physicists like Bernard Sadoulet are right, millions of WIMPS are passing through your body as you read this.

The argument goes like this: the Universe is full of wimps—they form a background against which all other objects appear. Earth is moving around the Sun and the Sun is rotating around the galactic center, so Earth is constantly sweeping through the sea of wimps. If we could feel them, it would seem that a constant "dark matter



Composite image shows galaxies and huge cloud of





Berkeley (center) looks for stars being eclipsed by blobs of dark, but otherwise ordinary, matter called

MACHOS. Bernard Sadoulet, also at Berkeley, hopes to detect exotic particles playfully called wimps.

covery of a large cloud of hot, x-ray-emitting gas containing a few small galaxies (p. 33). Again, there was not enough mass in those galaxies to keep the cloud together, but there it was. Astronomers estimated that the total mass in the galaxy-plus-cloud complex could be as much as 30 times what they could see in their telescopes. If this were a universal result, it would imply that there is enough dark matter around to close the Universe.

Or take the "Great Attractor." Scientists have found that the Milky Way and other galaxies in our region of the Universe are streaming toward a region of space that, judging from the speed of the galaxies, must have a mass-and gravitational pull-of 10,000 trillion suns. Right now, astronomers are trying to map out these great rivers of galaxies and, like canoeists figuring out where the rocks are by looking at flowing water, map out where the mass concentrations are. Their results seem to indicate that most of the mass pulling galaxies into these streams is dark matter-the visible galaxies in the direcrion of the Great Attractor, for example, couldn't begin

look these days, it seems, dark matter keeps popping up.

Most scientists now agree that there is a lot of dark matter around. Indeed, some argue that it makes up a full 99 percent of the Universe. The fun really begins when you start to ask what this stuff could possibly be, because there are all sorts of ideas floating around and precious few bits of information to tie down some of the more imaginative flights of fancy. But essentially the question comes down to this: Is dark matter like us, or isn't it? Is it, in other words, material made up of ordinary atoms like the ones in our own bodies, or is it of something totally new, totally unexpected? In the jargon of the astrophysicist, is dark matter "baryonic"-does it consist of baryons, the heavy particles (protons and neutrons) that make up the nuclei of ordinary atoms?

David Schramm of the University of Chicago has become one of the leading investigators of dark matter. In his office one day, between conversations with his secretary over problems with airline connections to a conference in India, he points out that the Big Bang theory has

Create PDF files without this message by purchasing novaPDF printer (http://www.novapdf.com) ver the years, and that





In the majestic rotation of a galaxy, everything is gravitationally linked and moves at the same speed. Hydrogen atoms beyond the spiral do the same, showing they are embedded in the gravity of unseen matter.

locity, out to the very limits of detectability. There was

is very different from the sort of thing we see in our own solar system, where the outer planets not only have farther to travel than the inner ones, but travel more slowly as well. That sort of motion is characteristic of situations in which objects are far away from a large, central object like the Sun, and is markedly different from the way things move if they are immersed in a sea of gravitating bodies-"down in the soup," as it were.

In the 1970s, astronomers had refined their techniques to the point that they could see radio waves emitted by hydrogen atoms thinly scattered in the outer fringes of the visible galaxies-far beyond the last stars in the spiral arms. They expected that if these atoms were far away from the main mass of the galaxy-if each atom were, in effect, a little planet circling the galaxy as the planets circle the Sun-then the farther out an atom was, the slower it would be moving.

Imagine the astonishment, then, when the results from galaxy after galaxy gave the same result-all the hydrogen atoms, like the stars themselves, move with the same ve-

Dark matter may hold the key to one of the ultimate questions we can use about the Universe: What is its fate e expansion we see going on new gennig to bell W came their same time in the

only one conclusion that could be drawn from that result: those hydrogen atoms, like the stars, must be *down in the soup." Like the twigs on the stream in our analogy, they must be carried along by some unseen material exerting a gravitational force that keeps them from slowing down. This material is "dark matter." Today, we understand that what we normally think of as the "galaxy"-the pinwheel of stars-is in fact only a part of the entire structure. It is surrounded by, and im-

verse, it seems, is in the dark matter. Right now there is enormous ferment as scientists from many disciplines join forces to explore this strange new terrain. Experimenters and observers want to know how much dark matter there is, where it is and what it is. Theorists want to understand how the existence of dark matter could affect the evolution of the Universe and what role it plays today.

mersed in, a globe of unseen dark matter that makes up

at least 90 percent of its mass. The real story of the Uni-

James Trent tourists may say at George Mason The Dictionary

James S. Trefil Writes for: Smithsonian magazine Clarence J. Robinson Professor of Physics Smithsonian Magazine Smithsonian Magazine Steel Dark Motter Which L personally refer to as By James Trefil the aetheron. MB

DARK MATTER

Smithsonia Magazine June 1993, pp. 26-35

We can't see it or touch it, and we don't know what it is, but it may determine the fate of the Universe

Dark matter is strange stuff. It's all around you but you can't see it. It's whistling by your ears but you can't hear it. It is arguably the most important material in the Universe, but until recently scientists had no idea that it existed. It will decide the fate of the Universe, but we have no idea what it is. How can scientists, after so many centuries, still know so little about the workings of the cosmos?

When you look out into the sky from planet Earth, you see lots of things—the Moon, other planets, the occasional comet and the stars of the Milky Way. In between these occasional solid bodies, we used to think, was the void. A little dust here, a little gas there. But basically emptiness.

Well, the Universe just doesn't look that way anymore. As seen by the modern astronomer, that space between the planets and stars is no longer empty, and it isn't just populated by the odd dust grain or elementary particle, either. It's filled with something called dark matter-something whose effects we can see, but whose distribution and identity we have yet to learn.

It all started back in 1933 when the Swiss astronomer Fritz Zwicky was working at Caltech measuring the motion of galaxies in a region called the Virgo Cluster. This is a group of 100 or so bright galaxies located about 64 million light-years from Earth in the constellation Virgo. He measured the speeds at which the various galaxies were waltzing around one another, as well as the total amount of light the galaxies were sending out into space. From the latter, he could estimate how many suns there

were in those galaxies, and hence how much mass there was in the cluster. From the velocities, on the other hand, he could estimate how much mass it would take to keep those swiftly moving galaxies from flying off and leaving the cluster. Then came the surprise—in his words "the total mass [of the cluster] considerably exceeds the sum of the masses of individual galaxies."

Isaac Newton taught us that every object in the Universe exerts a gravitational force on every other object. If you threw this magazine up into the air, Earth's gravitational force would slow its upward climb, stop it and make it fall back down. Knowing the mass of Earth (and hence the gravitational force it is capable of exerting) and the speed of the magazine, you could make that prediction with absolute certainty. If you threw the magazine fast enough—faster than seven miles per second—you could also predict with absolute accuracy that, despite Earth's gravitational pull, the magazine would never come back down. You would then say it had reached escape velocity.

What Zwicky discovered about the Virgo Cluster was that if the mass of the cluster is just the sum of the masses of the stars in the galaxies, then all the galaxies he could see had escape velocity. Like steam from a drop of water on a hot griddle, they would all have evaporated from the cluster long ago, leaving a blank spot in space. The fact that the cluster was still there meant that there had to be more mass pulling the galaxies back in-matter that wasn't visible in Zwicky's telescope.

Astronomers filed Zwicky's discovery with those bothersome but unexplainable bits of data that exist in every
branch of science. The assumption was that sooner or
later someone would explain it, so there was no point in
getting too excited. But today, looking back, we can see
that Zwicky had stumbled onto one of the great secrets of
the Universe—that most of what's out there can't be seen.
Only in the past 15 years or so has this fact been seized
upon as a possible answer to many of the problems we
face in explaining how the Universe came to be as it is
today and in predicting what will happen in the future.

We have studied the stars and galaxies for millennia.



The invisible Universe



In 1933 Fritz Zwicks mand that without unseen matter,

The best analogy I can give to what has happened in astronomy over the past decade and a half is this: suppose you were standing by a stream watching a couple of twigs floating by. Suppose further that the water was invisible to you-that all you could see were the twigs. If those two twigs moved toward each other, you might well decide that what was moving them was their mutual gravitational attraction. But if you took this tack and then calculated how big the gravitational force between the twigs was-how hard they were pulling on each otheryou would quickly find that it wasn't nearly big enough to explain what you were seeing. Eventually, you would have to accept that there was something else exerting force, something you couldn't see directly, but the influence of which was manifest in the movement of the twigs. Once you had accepted this, you could do two different things to investigate this strange stuff. You could look at lots of twigs and discover that they moved only in a certain region (those on the ground, for example, would not move at all). In this way, you could draw a rough map of where the water in the stream was. You could also reach down into the stream and try to get a handful of the invisible stuff acting on the twigs, so that you could investigate its properties.

What is this stuff and where is it?

Astronomers today are carrying out both kinds of studies. They are looking into the Universe to find out where dark matter is and designing experiments to find out what it is. The first modern look at where it is came in the late 1970s, when astronomers began making detailed studies of rotation of other galaxies. If you think of a galaxy like our own Milky Way, you probably conjure up a picture of a giant pinwheel of stars, majestically turning in empty space. Each star can be thought of as moving around the center of the galaxy in a large orbit-the Sun, for example, takes about 250 million years to make it once around. The rotation is actually a fairly complicated business, because each star has a gravitational effect on all of its neighbors and is, in turn, affected by them. The net result of all of this gravitational to-and-fro is easy to describe (if complicated to work out mathematically) for stars not too close to the galactic center. As long as a star is part of the pinwheel-so long as it is immersed in the gravitational fields of its fellows-it will move at the same speed as all the other stars.

This doesn't mean that the whole galaxy turns like some sort of cosmic merry-go-round. The farther out a star is, the farther it has to travel to make one loop around the galaxy, and hence the longer it will take. Like a group of runners on a curved track, a star on the inside will move ahead or its more distant fellows, even though they are all traveling at the same speed.

t this kind of sotation







David Schramm at the University of Chicago (above) is a leader among theorists trying to discover if dark

matter is made of normal particles or something else we know nothing of. Christopher Stubbs at U.C.

future? The answer depends on how much matter-both luminous and dark-is pulling back on the outward-flying galaxies. Most current theories say that there is just enough mass to stop the expansion and cause the Universe to collapse in on itself again-to "close the Universe" in the jargon of the cosmologists. The amount of matter known to exist is usually expressed as a fraction of this magic number. Luminous matter makes up less than I percent of the amount needed for closure. Add in the huge dark matter haloes around galaxies and the stuff known to exist in big clusters, though, and this number climbs to 20 percent or even 30 percent. Theorists say the rest is out there, but where?

One of the cleverest schemes to "weigh" distant collections of stars and their associated dark matter is being carried out by a consortium of scientists led by Anthony Tyson at AT&T Bell Laboratories in Murray Hill, New Jersey. The idea is based on the famous bending-of-light observation that first confirmed Einstein's theory of general relativity. When a beam of light passes near somepull. Tyson's scheme is to look at the distortion of light from distant galaxies caused by clusters of galaxies closer to Earth. The images of those farther galaxies will be altered as the light coming from them is bent by the gravitational pull of the nearer clusters. Think of Tyson's search as analogous to "detecting" defects in a glass window by measuring how much they distort the images of distant buildings and trees.

When observers look 'in back of' nearby clusters, they see the normal spiral shapes of galaxies twisted and distorted into arcs. The degree of distortion of a distant galaxy's image depends on how much mass is bending the light beams. Astronomers find that the amount of distortion is more than what you would get if the only dark matter in the foreground cluster were in the haloes of its galaxies—in other words, there is more dark matter in the Universe than just that found in haloes.

Data confirming the existence of more and more dark matter just seems to keep pouring in. In early 1993, for example, astronomers working with ROSAT, an x-ray

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Anthony Tyson of Bell Labs measures dark matter in nearby galaxy clusters by seeing how they distort light coming from more-distant galaxies. At left is how Saturn would look if its image were subject to similar gravitational distortion (here, a black hole causes the Daliesque effect, but the principle is exactly the same).

it definitely has something to say about dark matter. "The haloes of the galaxies could be baryonic," he points out, "but that would use up all the baryons made in the early Universe."

According to current theory, there was a very narrow window in time (about three minutes into the history of the Universe) when matter was packed densely enough for protons and neutrons to come together to make the nuclei of atoms, and the temperature was low enough for the resulting nuclei to survive. Since the total number of baryons doesn't change over time, observations of atoms formed early on (mainly helium and hydrogen) should tell us the total amount of baryonic matter in the Universe, both then and now, a quantity that turns out to be only about 5 percent of what is needed to close the Universe-about enough, in fact, to make up the haloes of galaxies that Schramm was talking about. (It is possible, however, that any baryonic dark matter is not in those haloes but rather in places and in forms that we have never really considered.)

All of this uncertainty and possibility, of course, is one

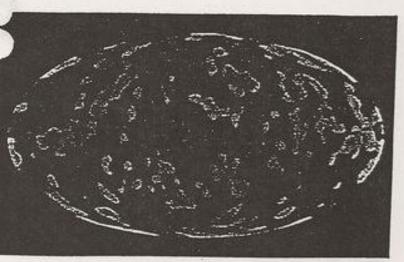
makes assumptions about what dark matter is, then builds an apparatus to detect it. If they find the dark matter, of course, the story ends, but if they don't there are always two possibilities: either the dark matter isn't in the place they looked for it, or it's there but it's not the kind of stuff they thought it was.

For example, one form that baryonic dark matter could take would be smallish lumps of stuff scattered around a galaxy-think of a diffuse swarm of Jupiter-size objects floating around out there. For reasons that will become obvious, cosmologists delight in calling these objects Machos (from massive compact halo objects). Since they don't shine, far-off Machos wouldn't be visible in an ordinary telescope, but they would temporarily intensity (by bending and focusing) the light of any star they happened to eclipse. To someone watching from Earth, it would appear that the distant star being eclipsed by a Macho would brighten, then fade back to its normal intensity over a period ranging anywhere from hours to years.

Christopher Stubbs, a young physicist who works at

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Satellite image of the early Universe shows clumpy structure that could be caused only by dark matter.

wind" was blowing by. Because dark matter interacts only weakly with ordinary matter, most of the WIMPS pass on through the atmosphere, your body and even the solid Earth without leaving a trace. Occasionally, though, one does interact, and it's the evidence of those elusive encounters that Sadoulet and his group hope to detect.

To do it, a single large crystal of material such as germanium is cooled to within a few thousandths of a degree of absolute zero, so that its atoms are barely moving. Theoretically, on occasion a particle of dark matter will pass through the crystal and interact with one of these atoms, causing its nucleus to recoil. The energy in that recoil eventually will be shared out among the other atoms, raising the temperature of the crystal by a tiny (but measurable) amount. Ordinary particles, such as those in cosmic rays, tend to knock electrons off atoms rather than making the nuclei recoil, so energy is added to the crystal in a different way. WIMPS should leave a clear fingerprint in the crystal.

This winter, the detector will be installed in an underground chamber in the old High Energy Physics Laboratory at Stanford University, across the bay from Berkeley, and the countdown begins.

"We expect to see about one event every ten days or so," says Sadoulet, and he hastens to point out that the main difficulty they will face is picking out the occasional wimp interaction from among interactions from all the other particles going through their crystal. To give just one example of the kind of problem they face in measuring such small temperature changes, consider this. The stainless steel they use to hold up the low-temperature "icebox" is made by a process that allows small amounts of radioactive cobalt-60 to wind up in the finished product. Some of the particles given off during the decay of the cobalt-60 will necessarily enter the detec-

tell when this happens. That is why the distinctive fingerprint of the WIMP is so important. In the words of Peter Barnes, a Berkeley graduate student who is working on the experiment, "We're supposed to sit and wait for dark matter to come by, but most of the time something else comes by."

While Sadoulet and his colleagues are watching their instruments, other astronomers and cosmologists are finding more and more ways to make dark matter solve their problems when (and if) it's found. Perhaps the best example of this was the discovery, announced in 1992, of the "ripples near the beginning of time" by the Cosmic Background Explorer satellite (COBE). This discovery (left) points to how dark matter plays a role in solving a problem—some would say the problem—in our understanding of the Universe: the question of how the Big Bang led to the clumping of matter into galaxies and the other structures we see when we look out at the sky.

Matter is not spread evenly through the Universe as one might expect. Not only are stars gathered into galaxies, but galaxies are gathered into groups and clusters, and these, in turn, form gigantic structures called superclusters. Our picture of the Universe today is a lot like a pile of soapsuds—the luminous matter (in the form of superclusters) is confined to the soap films, and in between are voids, largely empty of matter. The problem is understanding how matter could have come to be so unevenly distributed.

In an expanding Universe, there are two competing influences. Gravity tends to pull matter together, but at the same time the expansion is spreading the matter farther and farther apart. Whatever clumps of matter survive today are a result of how this competition played itself out in the early Universe. To get the soapsuds Universe we live in, the clumping would have had to have started early, while matter was still close enough together to be pulled into the nascent structures.

First it was too hot, then too late

Until the Universe was about 300,000 years old, however, it was a hot, turbulent plasma-more like the material in a welder's arc than the solid Earth we're on today. If any clumping had started, the intense pressure of the radiation in the plasma would have blown it apart. Only after 300,000 years or so, when the Universe had cooled off to the point that those nuclei could capture electrons (and thus become the atoms we are familiar with) could the gravitational collecting get started. Unfortunately for cosmologists, by then it was too late-not only was matter too thinly spread to form superclusters, clusters and groups, it was too diffuse even to make the kinds of galaxies we see all around us. Something has to be missing from this picture.

sengly. this describes my discon Formal Systems and Reality This is our first example of a case where a formal system is based upon a

portion of reality, and seems to mimic it perfectly, in that its theorems are isomorphic to truths about that part of reality. However, reality and the formal system are independent. Nobody need be aware that there is an isomorphism between the two. Each side stands by itself-one plus one equals two, whether or not we know that -p-q-- is a theorem; and -p-q-- is still a theorem whether or not we connect it with addition.

You might wonder whether making this formal system, or any formal system, sheds new light on truths in the domain of its interpretation. Have we learned any new additions by producing pq-theorems? Certainly not; but we have learned something about the nature of addition as a process-namely, that it is easily mimicked by a typographical rule governing meaningless symbols. This still should not be a big surprise since addition is such a simple concept. It is a commonplace that addition can be

captured in the spinning gears of a device like a cash register.

But it is clear that we have hardly scratched the surface, as far as formal systems go; it is natural to wonder about what portion of reality can be imitated in its behavior by a set of meaningless symbols governed by formal rules. Can all of reality be turned into a formal system? In a very broad sense, the answer might appear to be yes. One could suggest, for instance, that reality is itself nothing but one very complicated formal ystem. Its symbols do not move around on paper, but rather in d'threedimensional vacuum (space); they are the elementary particles of which everything is composed. (Tacit assumption: that there is an end to the descending chain of matter, so that the expression "elementary particles" makes sense.) The "typographical rules" are the laws of physics, which tell how, given the positions and velocities of all particles at a given instant, to modify them, resulting in a new set of positions and velocities belonging to the "next" instant. So the theorems of this grand formal system are the PUFFPRICIPE TO ROID MAP possible configurations of particles at different times in the history of the universe. The sole axiom is (or perhaps, was) the original configuration of all the particles at the beginning of time. This is so grandiose a conception, however, that it has only the most theoretical interest; and besides, quantum mechanics (and other parts of physics) casts at least some doubt on even the theoretical worth of this idea. Basically, we are asking if the universe operates deterministically which is an open question.

Meaning and Form in Mathematics

NUMBERS ARE STATIONAL

VECTOR INTERSTICIE UPON THE DANDELION

an Eternal Golden Braid

Douglas R. Hofstadter



Phone Interview

Marko Rodin and Heather Smith phone interview 8/21/98

"AS ABOVE, SO BELOW" Transcripts

- rko Rodin (M.R.) The first topic is always the Aetheric Template or the Morphogenic Field, which is the Third Helix in our DNA strand. There is no such thing as anything just occuring in two's. The minimum amount of anything is three (3) parts.
- some people now have thier Third Helix fully formed. But if it was always aetheric, then it was always there anyway. It's just people are psychically becoming aware of it now.
 - Right. There are so many different modalities to deal with things. Everybody learns things differently or has different takes. Psychically for example. I once saw this article on what is called the Aetheric Net. It was the most crudely drawn picture. It was channeled by somebody. It was this net, it looked like a fishing net. This is the Aetheric Net. I laughed at it. I thought it was the most ridiculous thing I had ever heard, seen or read. Only a year later on my own mathematically, independantly I came to 100% the exact identical discovery. Only the difference was I could do it with math scientifically. Using a black and white mathematical system that could duplicate. So I have learned the hard way (to not judge others). Just like I used to have this employee who's an artist. He came into my office one day and said oh ya, the whole universe is a toroid. It's moving in like this on one side and out like this on the other side. We all knew at the tennis club where we worked that he's completely nuts. Of course he was right too. Then the foremost physicist Keith Watson, who works with all the big names in Europe. He said every Wednesday on the main boulavards there they used to open up their physics office. They would invite all the crazy street and homeless people in to explain all their ideas. He said that's where they got some of their best ideas from, in physics. It's a true story.

Most crazy people are really crazy but there is always some truth in there too.

I have always had a lot of respect for creative people, for artists. You'll find brilliant minds in all situations. I was in jail a lot for traffic tickets. One day in jail the guy in the bunk below me, after listening to him for an hour, it was just unbelievable. He repeated in a straight row, never hesitating once, every vegetable. Everything you could ever imagine that you can eat. It was like.....peas......carrots.....and it just kept going and going and going. You never

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perspective of it and then I can make it complex. But in reality it's just too easy. It is just the most basic thing there is. The difference is that there are over five billion people and there is one of me and I claim to be the right one on this.

- b. Well we'll see what we can do to help people understand what it is you are talking about. Then maybe you will not be the only one.
- R. There will be a whole new mental contemplation.
- . A new reality. We were talking about the Aetheric Template, the Morphogenic Field and the Third Helix. What is the Double Helix Groove?
- . In DNA you have a double spiral helix and if you look at DNA they show arrows along it. Where the energy flows or spirals in two directions, counter directions. Now it is so conspicuously apparent and obvious to me but people typically don't observe it. In between DNA there is a big gap space that is equal or greater in width to the DNA helix. The DNA helix is sometimes called the DNA Backbone or Spline and they are kept separated and apart by this Major Groove, which is an empty space. To this space applies the saying, nature abhors a vacuum. It turns out that DNA is made out of phosphates and phosphates are always known to have a negative electrical charge. It is also known that what's always going to be associated with any negative electrical charge is a magnetic field. Now only I know that a magnetic field is centered in the center of electricity. And in the center of the magnetic field is always, what I call, an Aetheron Flux. A Flux and a Field always come together. They are inseperable as far as occuring at the same time frame, moment, activation of occurence. They always occur together. Interestingly a Flux represents a super pulse emanation. A particle emanation. However, it is above the known elements and it is above what the senses can perceive. The Flux is the only thing that does not bend. It is a linear straight emanation. The Field is the only thing that can respond fast enough and quick enough to give slippage and free play to the Flux Iby traveling in the reverse direction. When you have one part Flux you are always going to have a two part reaction that is instantaneous and simultaneous responding. It's like with one knife cutting a piece of bread in half, you are always going to end up with two seperate pieces. Everything moves and exists because of the Flux. If you were to take the Flux away the universe would instantly become destitute and void

The world of our Third Dimension is the world of vibration and motion of matter, of mass. Everything is on a third dimension; light, water, electricity, matter, planets, solar systems, that is all third dimension. Anything that is concrete. Everything is curved and warped. That is the basis of Relativistic Einstenian Physics. It is called a curving universe. But just as a jungle vine

four sides are a perfect diamond. In the past the diamond represented perfection or attainment or the vortex. All knowledge is represented by the number 9. It's the zenith. Totality, completion, all wisdom. The numbers 3 and 6 represent the Magnetic Field. 3 and 6 do not connect at the base, they do not make a triangle. They connect at the 9, they make a vector. It is very important that the 3-9-6 are not three sided. All the knowledge of past and present, of all of mankinds future is contained in that diagram. That is why I refer to it as God's petroglyph. Everybody is looking for proof of the existence of God. That symbol is God's thumbprint. That symbol explains all the knowledge of spacial orientation in architecture and three dimensional space. That symbol explains all the knowledge of celestial mechanics. The symbol of enlightenment explains creation. The symbol of enlightenment explains evolution with the morphogenic field. It shows that there is an all coherant Divine Intelligence guiding evolution. So when people say they believe in evolution, the evolutionary theorists are still wrong.

. - They have not progressed with that idea.

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- . Exactly. Evolution is not random, haphazard, trial and error. It is called predeterministic. In other words we have a deterministic universe. We have deterministic evolution and we have deterministic chaos. In other words chaos is self organizing chaos.
- My step father knows that guy who came up with the chaos theory.
- Well your work some day, when you write this all up, I'm sure will be reviewed by all of these people. It will help them progress in their research as well.
- I can definitely see how this work is co-creative. Everyones information helps everyone else in some way. I would like to go back to the DNA Groove.
- DNA also has what is called a Minor Groove. This is where the two backbones abut together on their outskirts. There is a Major Groove on the inside, the Major Groove is always on the inside. The Minor Groove is always on the outskirts where the backbone abuts. On the inside, that is called the Inversion Seam, it is along the axis. That would be like the hair line from your bellybutton up to your chest, that would be the Major Groove. That is the Inversion Seam, although it seems to be a solid. The Minor Groove would be like your back where your spine is. One is going inwards, the other is the outskirts. The best example is when you look out from a spaceship down at earth and take a photo of a tropical storm. You see two hurricanes whirling. On the outskirts where they touch and abut together, that would be considered the Minor Groove. The classical term is the World Boundary Condition. It is also called a shear.

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approximates what it is modeling. This is an exact form of modeling, it's not just a rendering. It is a perfect representation digitally of diseases. No one has ever been able to digitalize disease before.

- How can it do that?
- .- Because this is a numerical system that actually models the surface topology and assigns a numerical correspondant, as well as a temporal, spacial and volumetric relationship. As well as to all the chemicals. It accounts for all the missing ATP energy that is unaccounted for in these metabolic, chemical interactions.
- What is ATP energy?
- . It is kind if famous that there is unaccounted for energy that occurs in these processes. It would take more of a molecular biologist to expound on that particular point. (Oscar) So thus the displacement and the distention of these backbones is because there is this higher dimensional Flux Field, otherwise they would collapse on themselves. This displacement and distention of this Flux Field actually imparts an angle and a ratio to the DNA Helix. This then in turn results into a matrix and a lattice structure of the DNA. That is how I can digitalize all of DNA.
- Does this fit with the Golden Means number too?
- The Golden Means number and every other way we calculate things today in math is wrong. Because it is all two dimensional and there is no two dimensional in geometry. This is the true Golden Means but this is a different type of Golden Means. This is a Golden Means that expands and contracts from the center of math based on the Inverse Square Law. So with this Golden Means I can model accurately the conservation of energy in numbers, digital numbers.
- Then it is considered three dimensional not two dimensional?
- Correct. In reality the Flux Field is not on the Third Dimension. The Flux is omni-fourth dimensional. The Flux is Omni-dimensional and the Magnetic is the Fourth Dimension. The 3 and 6 represent the Magnetic and the 9 represents the Flux. So the 3 and 6 are Fourth Dimensional numbers. Again no one has ever done this before, said what number is on what dimension. The 9 is Omni-dimensional. The 9 represents the Axis or the Spindle. It represents one Aetheron Flux Super Particle that is traveling linear. The 9 is again Omni-dimensional which would have been the Fifth Dimension but I don't refer to it as the Fifth. I refer to it as Omni, Omni-fourth. The Omni and the Fourth always occur together as one

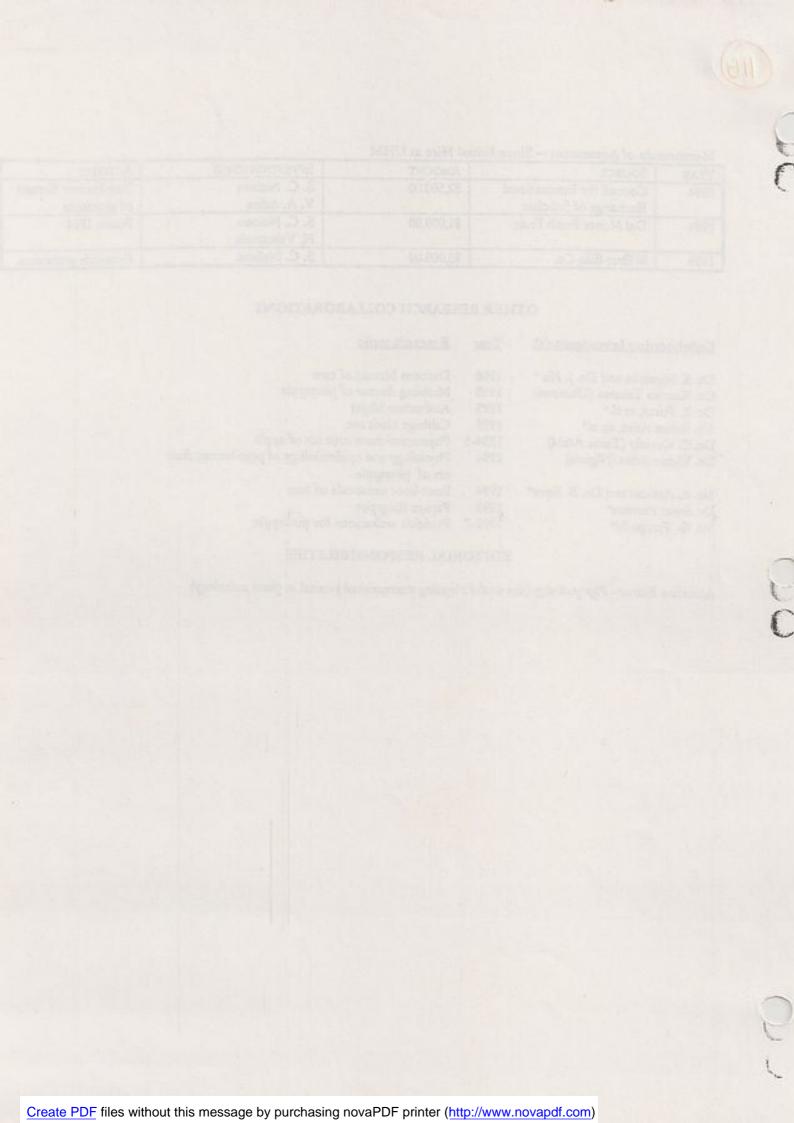
and Yang. They are perfect opposites. When 3 doubles it becomes 6. When 6 doubles it becomes 12, but 1+2=3. When 12 doubles it becomes 24, but 2+4=6. Then 24 doubles into 48 and 4+8=12 and 1+2=3. 3 and 6 are always in dancing motion by oscillating back and forth in resonance with one another. It's that they syncronize in resonance that they actually work. That is why they are the same polarity charge. Both positive when 9 is negative, and both negative when 9 is positive. 9 is the control. That is the secret of the number 9, it is the control. Now 3 and 6 thus never come alone without the 9, but they are the Yin and Yang. Everyone today is wrong that think the Yin and Yang is two parts. Everything is a minimum of three parts with the third part being invisible. In the Yin and Yang the third part representing the 9 is the S-curve in the center. In the symbol of enlightenment we can clearly see the number 9 by it being at the crown, at the zenith above the 3 and 6. The other two family number groups besides the 3-9-6 is the 1-4-7 and the 2-5-8. A family number group is always separated by 3 and 6 because they are the furthest most extremes. 3 and 6 are also identical with anything that is polarized; female-male, Yin-Yang, black-white. Duality. Although it is really a trinary, 3 and 6 have a focal center. So they are always worshiping the 9 which is God, as far as it represents perfection. God's the fashioner, the creator. The supreme being is not incomplete, there are no omissions and there is no redundancy. Since God did not leave creation nothing is omitted; not even to the grain of a mustard seed or the black part of the eye of an ant, nothing is missing. The nature of the 3 and 6 is to be in syncronization. So I do not agree with the principal that male and female are either negative or positive. I look at it like if two people are having sex, it isn't that opposites attract, it's rather that syncronization attracts. If they can syncronize together and create what I call a healthy rhythm by pulsing together or resonating together. Then they are in what's called harmonic cascadis. They are harmonically syncronized.

Now winding a coil based on the symbol of enlightenment, which is based on my Toroid Map, the Dandelion Puff Principal Toroid Map, we get a syncronized electricity out of it. This is a form of pulse direct current. That is my discovery. That is my invention, this new kind of electricity which is even being conducted in the DNA Helix Backbone, this syncronized electricity. Electricity is on the Third Dimension and it always follows and moves along the doubling circuits. The doubling circuits are made out of the other two family number groups of 1-4-7, 2-8-5 and they are always interspersed between one another. So you always have every other number of the opposite family number group. You have 1, then you go to the second family number group -2. Then you have 4, back to the first family number group. Then 8, the second. Then 7, the first. Then 5, the second family number group and back to 1 again. You know how I got the 7 after the 8 and the 5 after 7? Because 1-2-4-8 is doubling. Then 8 doubled becomes 16 and 1+6=7. 16 doubled is 32 and 3+2=5. Next 64 is 6+4=10 and 1+0=1. 64 doubled is 128 and 1+2+8=11 and 1+1=2. 128 doubled is 256 and

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to a discrete number it would be 2,4,6,8,1,3,5,7,9. Of course the last number before 9 was 7 so you would go across horizontally to it's mirror or polar opposite 7 and the 7's are 1x7=7, 2x7=14=5, 3x7=21=3, 4x7=28=10=1, etc. So you get 7,5,3,1,8,6,4,2. Always mirroring like a mirror lake. The base ten system has nothing to do with our having ten fingers, because we don't. Our thumbs are apposals. It comes from halving. As we follow the doubling circuits we have 1, 5/10, 25/100, 125/1000, 625/10,000, 3125/100,000. So this explains everything that exists and why, but accurately with out man made superstition. Not representational numbers but actual numbers. I call them Organic Numbers. This is an organic math. No one ever thought that numbers have qualities. This is showing that numbers have actual physical attributes that are fundamental to their existance, with no ommisions and no redundancy.

- Do you have attributes to other numbers like 2,4,5,7?
- Their attribute is their phasing. The relationship of the family number groups and how they are organized in relationship to the other family number groups. This is represented by whether it is a X,Y or Z cross section circle of an axis. So the fundamental attribute of 2 is going to be a Z axis. 1 is going to be a vertical axis.
 - It is always going to be like this?
- It is always going to be at right angles to the other numbers. The other X,Y,Z axies.
- What about a value like 9 is creator. How 3 and 6 have a definition of being complementary opposite polarities.
- Complementary to themselves.
- · Do the other numbers have a definition like that?
- Yes they do, but it is very sophisticated. I think about that all the time. I never discuss it with people because it gets a little over their heads. When that relationship comes into play, it comes into play in the Nested Vortices. In each Nested Vortices you will never have all three family number groups the same. For instance, 2 to 1 will always be the ratio. There are two different kinds of Nested Vortices, one is positive and one is negative. This is actually how everything occurs in chemistry, in molecular bonding. In a Nested Vortex you will have a minimum of nine numbers, 1-9. For 1-4-7 it will be a positive 1 and 4 and a negative 7. Or reverse 2-5-8; positive 2 and a negative 5 and 8. Or negative 2 and a positive 5 and 8.







HONORS AND AWARDS

1985	Scholarship, Texas Turfgrass Association
1988	Graduate Fellowship, North Carolina State University Alumni Association
1991	Second Place, Graduate Student Paper Competition
	Southern Division of the American Phytopathological Society
1991	Grant-In-Aid, Sigma Xi (Scientific Research Society)
1993	Nusbaum Scholar Award
	North Carolina State University Department of Plant Pathology
1994	Travel Award, University of Hawaii, University Research Council
1996	Excellence in Teaching Award
	University of Hawaii College of Tropical Agriculture and Human Resources
1996	Chairman's Award - Hawaii Department of Agriculture (for outstanding action
	in prevention of importation of alien pest species).

MEMBERSHIP IN PROFESSIONAL AND HONOR SOCIETIES

Phi Alpha Theta - The International Honor Society of History (1974)

American Phytopathological Society, Southern Division (1986 - 1992)

Society of Nematologists (1986 - present)

American Phytopathological Society (1988 - present)

Gamma Sigma Delta (1991)

Sigma Xi, Associate Member (1991)

National Education Association (1992-present)

EXTRAMURAL AND INTRAMURAL GRANTS

Nelson, S. C. 1993. Development of a Spatio-temporal Disease Forecasting System for Control of Black Leaf Streak on Banana. Funded by The United States Department of Agriculture, Section 406. (\$104,000).

Nelson, S. C. 1993-1996. Pineapple Root Rot Etiology and Control. Funded by the Governor's Agricultural Coordinating Committee (\$53,704).

Nelson, S. C. 1993. A New Form a Spatio-temporal Analysis for Plant Disease Epidemics. University of Hawaii, University Research Council, Seed Money Grants. (\$6,266.00)

Arakaki, A., B. S. Sipes, and S. C. Nelson. 1993. Resistance to Meloidogyne javanics in Dryland Taro Cultivars. Funded by the County of Molokai, Hawaii (\$6,500).

Taniguchi, G. T., and Nelson, S. C. 1993. Pineapple Pesticide Evaluation. Funded by the Governor's Agriculture Coordinating Committee. (\$25, 712).

Nelson, S. C. 1994. Management Strategies for Pineapple Diseases. Funded by the University of Hawaii, College of Tropical Agriculture and Human Resources, Mini-Grant Program. (\$20,000).

Nelson, S. C. 1995. Banana Black Leaf Streak: Chemical Control. Funded by the Governor's Agricultural Coordinating Committee. (\$21, 712). (project transferred from Dr. Kenneth Rohrbach to Dr. Scot Nelson in 1995).

Taniguchi, G. T., and S. C. Nelson. 1996. Evaluation of Three New Formulations of Amdro Ant Baits. Funded by the Governor's Agricultural Coordinating Committee (\$10,000).

Nelson, S. C., and Taniguchi, G. T. 1997. Integrated Management of Pineapple Root Rot and Heart Rot. Funded by the Governor's Agricultural Coordinating Committee (\$10,000).





ESTIMATED BUDGET

for 6-month Leave of Absence from the University of Hawaii

Rent/Utilities	\$5,400
Food	\$3,600
Miscellaneous	\$1,200
Computer/supplies	\$4,000
*Travel	\$5,000
Clerical employees	\$5,000
Phone/Fax	800
TOTAL	\$25,000

(Leave of absence scheduled for January 1999 - June 1999).

^{*}Travel includes inter-island trips to meet with Mr. Rodin, and trips to mainland universities and libraries to gather supporting material for the book.



(011)

I find that I simply do not have the time and energy to devote to finishing the book in a timely fashion. In July of this year I was re-assigned within the University of Hawaii system (I moved from Oahu to the Big Island) and have many new job responsibilities to accommodate. These new responsibilities are consuming most of my energies and time My most viable option is to request an unpaid leave of absence from the University of Hawaii.

As a research scientist, I am intrigued by the potential applications of Mr. Rodin's concepts and theories in the area of plant and human disease. The two, major areas of application are: a) the production of toroidal, energy-healing devices that depend upon wavelength and harmonic modulation to achieve the healing effect; and b) the modeling, manipulation and regeneration of DNA. I believe that the production of healing devices based upon the phased-sequence activation of a toroidal coil or toroidal device will be possible, as well as a much more complete understanding of the DNA molecule. However, as a necessary precursor to these achievements, in my opinion, it will be necessary to present the ideas of Mr. Rodin with clarity and conciseness.

I think that by writing this book, a great number of new minds will be attracted to this body of knowledge, thereby providing the needed impetus to achieve these goals. A key aspect to developing the ideas of Mr. Rodin is to present them in a clear, organized fashion.

Other goals that I have in relation to this body of information is to author additional, related books and manuscripts. For example, I intend to write books (coloring books, etc.) for children, and guidelines for their teachers, which will be used to teach the math.

My ultimate goal is to conduct original research pertaining to plant diseases. For example, I believe that plant pathogens provide an excellent and relatively safe model system for investigating the effects of toroidal fields upon microorganisms and the diseases they cause. Such work could easily be transferred to the human realm and for human pathogens and diseases. I suspect that frequency and harmonic modulation will be the focus of the research as related to Mr. Rodin's concepts. For example, I intend to test the hypothesis that specific toroidal energy fields can repel pests and pathogens, or stimulate the enhanced growth of non-diseased plants.

Finally, it is my conviction that Mr. Rodin's concepts and theories merit intensive investigation, and could provide very fertile ground for research. Currently, I am devoting a portion of my research appointment at the University towards pursuing the topic. Personally, I would enjoy the opportunity to devote 100% of my energies to such research, and I hope it comes to pass. Eventually, I think the material merits the development of a university course or even an entire curriculum.

Attached is a budget outlining the funds required to cover my expenses while on my leave of absence. My sincere thanks for your considering this request. Please contact me if you have any questions or desire further information.



July 23, 1998

Dr. Earl E. Bakken P. O. Box 38-4360 Waikoloa, HI 96738-9998

Dear Dr. Bakken,

This letter is a brief follow-up to my recent letter requesting financial support from you for the writing of my book ("The Dandelion Puff Principle") pertaining to the ideas, theories and concepts of Mr. Marko Rodin.

I simply want to emphasize my ultimate intent and desire to establish institutes of research and education devoted to teaching the material presented in The Dandelion Puff Principle and to pursuing research goals related to this emerging science. I will establish curricula designed to prepare students in the field to pursue their own research and exploratory goals. I know how to teach and to conduct research effectively, and I have been quite successful at both endeavors. Thus, I am well suited and well positioned to accomplish these goals, and am perhaps one of the few people who can accomplish these goals at this time.

In addition, I want to emphasize my essential humanitarian nature...my heartfelt dedication to devoting my being, mind and energy to the betterment of the human race. I became a scientist out of love for knowledge and out of a desire to serve, not out of desire to profit monetarily from my science.

Now you are aware of my motivation and intent. Although I would greatly appreciate your support, I will regardless proceed with my objectives until they are accomplished.

Mahalo, Dr. Bakken, for taking your valuable time to meet with Mr. Rodin and myself. I/we sincerely appreciate this, because I know how valuable your time is and how significant it is that you have chosen to meet with us.

Sincerely,

Dr. Scot C. Nelson

Associate Professor

University of Hawaii at Manoa

Cooperative Extension Service

875 Komohana St.

Hilo, Hawaii 96720-2757

tel:

808-959-9155

fax:

808-985-7015

email: snelson@hawaii.edu



July 23, 1998

Dr. Earl E. Bakken
P. O. Box 38-4360
Waikoloa, HI 96738-9998

Dear Dr. Bakken,

A problem has been developing for me and my research program during the last few months, and Mr. Marko Rodin suggested that you may be willing and able to help me. In short, the problem that I face is that I am spending a significant portion of my time and state- and federal-allocated funds to conduct research (related to Rodin's theory of the Torus and Polarized Fractal Geometry) for which I have no official project "on the books". Even though I have academic freedom to conduct research within the general parameters of my position, I feel that I have started to stretch the parameters a little too far. The research project is directly related to Mr. Rodin's concepts of Polarized Fractal Geometry as it pertains to his Torus model. I understand that you are somewhat familiar with the basic elements of Mr. Rodin's theory.

I have been studying Mr. Rodin's concepts for several years now, and am convinced of their legitimacy. Initially, I justified my expenditure of time and resources on the basis of my belief in the theory and in the potential applications, and on the basis of academic freedom. However, I have reached the point where I cannot justify further diversion of funds from the more traditional pineapple and banana disease control experiments that I am under contract to perform. The remaining funds that I have simply cannot cover my contractual responsibilities and my interest in the Rodin Torus research. For example, I can no longer divert funds for the hiring of student help to assist with routine aspects of my Torus research without having a legitimate Torus Project on the books with some source of funding behind it.

What is needed in relation to this Torus research project is "legitimacy", so that I may pursue this important work without infringing on my ethical and contractual obligations. This legitimacy can only be obtained if I am able to secure some funds and deposit them with the University of Hawaii Foundation. With such legitimacy, I will be able to devote time and resources to the project without potential negative consequences. My research work with the Torus to this date, however, is not quite to the point where I can write a grant proposal to most of the funding agencies with whom I normally am involved, due to the novel and controversial nature of Mr. Rodin's theory, and due to the fact that my book (which will make the ideas of the Torus theory accessible and understandable to my peers in the scientific community) is not quite completed.

I am requesting from you the opportunity to submit a grant proposal to you in order to secure funds that will lend legitimacy to my research efforts, and so that I may finish the book and begin in earnest the testing of hypotheses related to the effect of the Torus field upon plant growth and health (and by extension, human growth and health). Although a significant funding amount would be greatly appreciated, even a nominal sum would legitimize my efforts and provide impetus for garnering additional funds from more

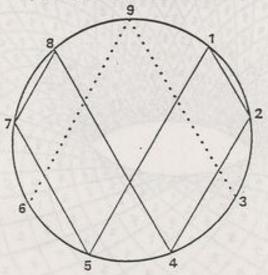




Symbol of Enlightenment

The Symbol of Enlightenment contains all of the information and number relationships pertaining to the Rodin Torus. In fact, the Rodin Torus was developed from an understanding of the Symbol of Enlightenment. The Symbol of Enlightenment was developed by Mr. Marko Rodin, and forms the basis for Polarized Fractal Geometry and for the number sequences and firing patterns on the skin of the Rodin Torus (the Number Map).

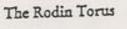
Symbol of Enlightenment (M/1/8)



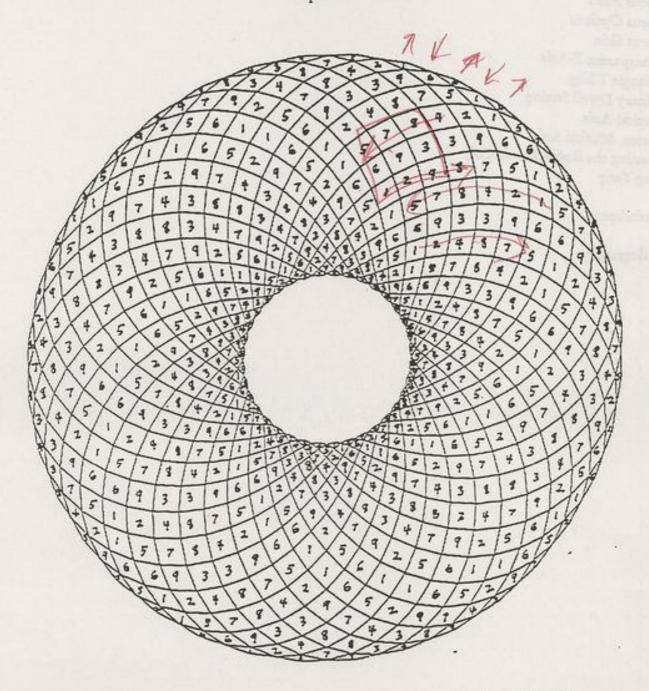
The Symbol of Enlightenment

The Doubling Circuit moves from 1-24-8-7-5 in an infinite loop, while the 3 and 6 oscillate about the 9-axis, creating a Field.





Top View



Top view of a Rodin Torus, showing the Number Map on the Skin of the Torus
The numbes disappear from view as they curve around the Equator and
inside the Magic Circle



Ennead

Enneagram

Equator of the Rodin Torus

Equipotential Major Groove

Family Number Groups

Fibonacci Families

Fibonacci Sequence

Flower of Life

Fractal Number Patterns

Fractal Rodin Torus

Gravity

Hallristingnor Rock Carvings

Harmonics of Music and the Rodin Torus

Harmonics of Vortex Motion

Hexagon Tiles

History of the Development of the Rodin Torus Model

Horizontal Addition

Horizontal Axis and the Harmonics of Energy

Inverse Reciprocal Functions

Koru

Lambdoma Matrix

Magic Squares

Merkaba

Multiplication Series

Linear Multiplication and Division Series

Musical Scale

Negative Draft Counterspace

Negative Number Nine

Nested Vortices

Newton's Laws of Motion

Nexus Key

Nine Axis

Northern and Southern Hemispheres

Numbers and Their Meaning

Period Doubling

Phyllotaxis

Planetary Nebulae

Polar Number Pairs

Polarized Fractal Geometry

Positive Numbers

Primal Point of Unity

Pythagorean Theorem

Pythagorean Color Harmonics

Reactionless Drive

Red Giant Stars and Red Blood Cells

Rodin Torus

Standard Torus

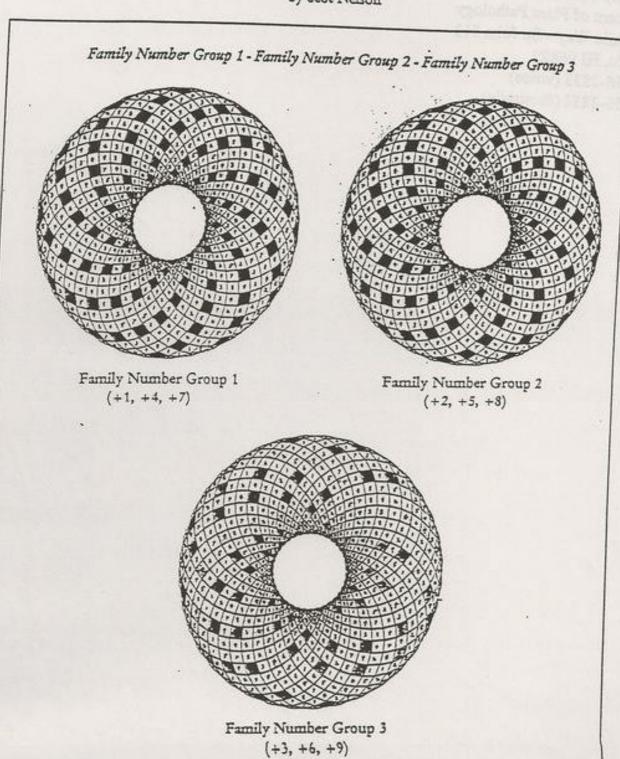
Symbol of Enlightenment

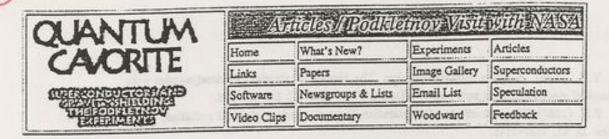
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TORUS

AN ILLUSTRATED GLOSSARY OF THE RODIN TORUS

by Scot Nelson





Weighty Talk About Anti-Gravity

Scientist is working with local company to duplicate experiment

[available online on the Columbus Dispatch website] May 8, 1998 By Mark D. Somerson Dispatch Staff Reporter

He said all objects placed above the spinning disk showed a small drop in weight.

Take a controversial Russian scientist, NASA and a high- tech Columbus company and the world just might -- might -- have a good shot at beating gravity.

But before anyone fires an apple at Sir Issac Newton, many things have to happen, including determining whether Eugene Podkletnov and his quest for shielding Earth's pull are real.

Yesterday, a representative from the National Aeronautics and Space Administration brought Podkletnov to Superconductive Components on the Northwest Side, to talk anti-gravity.

"Ten years ago, physicists would have said this stuff is Star Trek -- impossible to do," said Ron Koczor, associate director of the Space Science Laboratory at NASA's Marshall Space Flight Center in Huntsville, Ala.

"But if Eugene's work can be duplicated independently, this will change totally how the world does business."

In 1992, while working in Finland, Podkletnov said he achieved a 2 percent reduction in the force of gravity by using superconducting materials. He said, in essence, that he had built an anti-gravity machine.

In the world of physics, 2 percent is a giant leap. This is the stuff, scientists said yesterday, that Albert Einstein described but couldn't prove — that objects can be shielded against the waves of gravity that make what goes up come down.

But there is a problem. No other scientist has been able to replicate the Russian's results, and Podkletnov has yet to publish his work in a science journal [Editor's Note: this is incorrect. He has published one paper in a peer-reviewed physics journal: Physica C 203, 1992. Another was withdrawn by Podkletnov prior to publication in Journal of Physics D in September 1996, but is available as a preprint, and may still be published]. Although Podkletnov said his idea is valid, he isn't exactly sure why it works.

hing. This is physics,



aat is "Scalar Electromagnetics"?

By Rick Andersen, 7/3/97

Scalar EM is the brainchild of Lt. Col. (retired) Thomas E. Bearden, a systems analyst and wargames specialist who has been advocating a view of electromagnetics which is based on the notion of a vast, unseen background of scalar energies (as opposed to vector energies) which underly all physical reality.

What electrical engineers work with today, claims Bearden, is a subset of a higher-topology EM. Bearden claims that the four "Maxwell's Equations" taught today in electrical engineering are actually an over-simplified subset of Maxwell's original work. The pruning was done by Oliver Heaviside in the late 19th century; Heaviside took Maxwell's original equations, written in Hamilton's quaternions (related to what we nowadays call spinors), and "simplified" them by lopping off the scalar part of the complex numbers, leaving the easy-to-work-with vector part intact—which radio engineers loved. After all, the entire electronics industry as we know it grew out of the telephone/radio technologies of the early 1900's. Who can argue that the "vector" approach is inadequate?

Well, Bearden says that when Heaviside threw out the scalar part of the quaternionic EM equation, he unknowingly threw out the possibility of unifying gravitation with electromagnetism— which has been a holy grail for scientists since Einstein himself wrestled with the problem. That's because the scalar part of the quaternion, according to Bearden, was the part that captured or modeled the "stress on the aether"—the quaternion, according to Bearden, was the part that captured or modeled the "stress on the aether"—which leads to curving/warping spacetime a la Einstein. Tom Bearden says we CAN unify gravity with EM, and convert back and forth between them, if we understand how vectors and scalars relate to one another and what the ramifications are.

Vector fields can evidently be assembled by properly interfering scalar potentials (predicted in 1903-4 by mathematician E.T. Whittaker and probably engineered by the Soviets).

Conversely, scalar fields can be created by destructively interfering vector fields, in a nonlinear medium. Varying the vector components rhythmically produces what Bearden calls "scalar waves". These ripples in spacetime are believed to induce a wavelike stress in the "aether"; this in turn leads to engineering the structure of pure space and/or mass in a localized area—in other words, implementing General Relativity (spacetime curvature) on the lab bench!

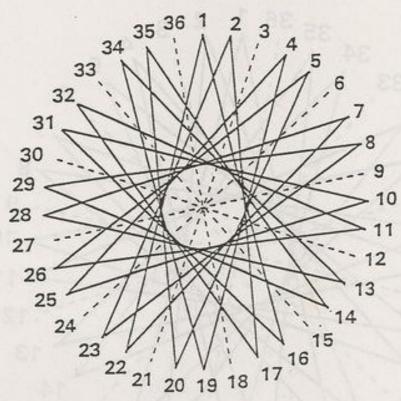
Tom Bearden has gone on record, in several of his books published in the 1980's, to proclaim that the former Soviet Union had created a fantastic arsenal of mind-bending weaponry based on this scalar technology, which they called "energetics" and which Bearden claims was developed from certain discarded ideas originated by Nikola Tesla. Now that the Cold War is apparently over, we're not sure how Bearden views his previous assertions, but we note that he has turned his attention away from Soviet scalar weapons and toward the production of "free energy" from the vacuum of space, using the principles of optical phase conjugation, but in a more generalized mode.

Here is the point:

If Bearden is correct in his Scalar EM theory, then we can build devices which would enable us to alter gravity, time, inertia, and the apparent mass of an object. This of course has ENORMOUS implications for military applications, space-vehicle drives, time-travel, teleportation, paranormal phenomena, and just

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Winding Method

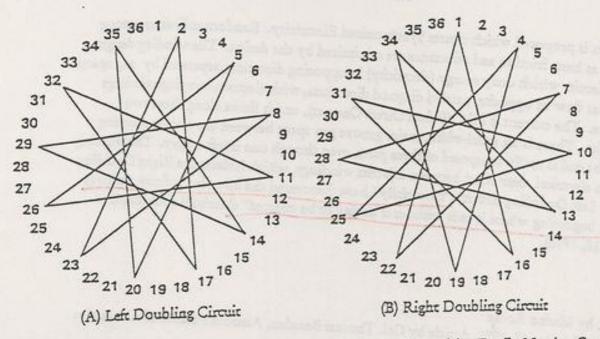
9 -13 +26 10 +28 -27 +26 11 -7 +6 -5 11 +22 +20 12 +22 end +36 end -35	10 11	+28 -7 +22	+6 -21	-5 +20
--	----------	------------------	-----------	-----------

Notes:

- 1. Wraps 1, 4, 7, and 10 are located at 90-degree intervals along the circumference of the Torus outer circle. For example, the degree values for these wraps for the Equipotential Major Groove are wrap #1
- (360), wrap #4 (90), wrap #7 (180), wrap #10 (270). 2. There are + winding wrap splines. They are: (1) wraps # 1, 2, 3; (2) wraps # +, 5, 6; (3) wraps # 7, 8, 9;
- (+) wraps # 10, 11, 12. These winding wrap splines produce the shape of a pencagon.
- 3. For a Torus of 36 increments (see above figure) there are a total of twelve winding wraps for each of
- 4. The Doubling Circuits appears to make 90 degree turns, when in reality they have gone through a omdually inverting, spiraling loop around the Magic Circle (the center of the torus which surrounds the

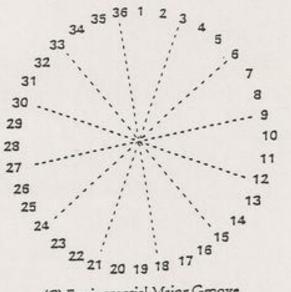
87

Winding the Rodin Toroid Coil



(A) The Left Perpetual Motion Doubling Circuit. In this circuit, the positive Family Number Group Three (+2, +8, +5) is activated. Winding proceeds from position 2 to position 17 (=8) to position 32 (=5), etc.

(B) The Right Perpetual Motion Doubling Circuit. In this circuit, the positive Family Number Group Two (+1, +7, +4) is activated. Winding proceeds from position 1 to position 16 (=7) to position 31 (=4), etc.



(C) Equipotential Major Groove

(C) Equipotential Major Grove. In this groove, the positive Family Number Group One (+6, +9, +3) is activated. This is the gap space between the Doubling Circuits.



Please feel free to call me to talk over anything you like. Might mean a bit of answering-machine tag but OK. I am VERY limited on phone call resources here. So, most of this will be up to you.

In the meantime (Is there REALLY a 'meantime'?), good luck and have fun with whatever you're up to.

Bill Ramsay

Residue to propose this until-enders we.

Lave some tangella results from first tester.

Besides, there need, must, be references to such

results in the proposal to justify. I out fei

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BILL RAMSAY 563 29 1/4 Road #3 Grand Junction, CO 81504 (970) 241 5863

Oscar Hsu 465 Noren Street La Canada, CA 91011

June 26, 1998

Oscar,

Since we talked last, Marko sent me a complete copy of the draft of your proposal. It looks pretty good to me with no glaring mistakes or inaccuracies I can spot. Except, of course, my address. And "Electrical Engineer" after my name. I suppose this could be justified as 'by experience and self training' to some such and I know you have to put something there and I don't have any other suggestions so, -----?

Marko called me. Pretty long conversation. We agreed, after some discussion, to this as a next step for me to do:

Prepare and get to you the materials (form, wire) for you to wind a Rodin coil there (location important?) which you could then run weight tests on per mine. I would also you could then run weight tests on per mine. I would also wind an identical one here so we could conduct these tests at the same time. Afterthoughts; Should we, could we, do all this at about the same times——coordinate by phone——all this at about the same times——coordinate by phone——and use the exact same scales for weighing at the exact same times? Plus what ever other 'experimental controls' occur to us? Might be a good idea——would 'formalize' the process so that it could be later written up in impressive ways.

Since giving more thought to it, it might be a good idea to prepare two-sets of two coils each---blue and yellow forms--so we could duplicate ALL of my initial work (adding and subtracting weights). Also it seems clear you will need subtracting through the first winding attempt. This could some 'talking through' the first winding attempt. This could be done whilst we're BOTH in the process of doing it. Which be done whilst we real 'project' out of it with means we'll have to make a real 'project' out of it with uncumbered time set aside. Sound right to you?

This also means some extra preparation work here for me. With my schedule of classes and other obligations, the best time frame will be Friday day through Sunday anytime. A solid three day chunk of uninterrupted (I hope!) time. Or, possibly, do it in natural stages with your chunks on the late day there and mine here (four hours later) in the late day there and mine here works for us both.

Some of this may seem a bit too much to you but, since I



Finally, general experimentation with the coils, compared to coils of conventional architecture's could be useful in further understanding it's unique characteristics.

Summary:

Based upon the results of the above experiments, some of the areas that we are locking at using this coil, or can see a potential application of the coil are:

Compact speakers
High energy applications
Medical technology
Communications
Standard transformer applications

* - This work is solely the effort of myself and in no way should be affiliated with the MHPCC.



MAGNAVOX RESEARCH LABORATORY

Torrance, California

09-78 to 07-79

Senior Digital Electronic Engineer

Using an 8080 based microprocessor emulator, I was responsible for testing and debugging computer base navigation equipment that had failed in the field. This equipment was use by commercial shipping fleets.

Using a manual card test unit, oscilloscope, voltmeter and digital analyzer I had the responsibility to debug and test the optimized circuitry, for a Secret Satellite Communications system. Also responsible for redesigning existing circuitry for optimization of system performance.

ROCKWELL INTERNATIONAL Autonetics Marine Systems Division, Anaheim California

05-76 to 09-78

Signal Processor Engineer

Using specially designed test equipment, oscilloscopes and digital analyzer, I researched designed, developed, tested and debugged a 10 MHz 32 bit Arithmetic Logic Unit (ALU) for a Digital Filter System, used in hydrophonic ocean surveillance.

Using a PDP-11 computer, digital analyzer and oscilloscope, designed, tested and debugged a 2's complementary 32 bit multiplier unit for the Digital Filter System.

Using a broad band oscilloscope and RF techniques, designed, developed, tested and debugged both the electronic and mechanical packaging of the system for a 120 bit Universal Symbol Baud Generator operating at 100 MHz.

EDUCATION

- 1. BS Degree, Electrical Engineering May 1976 Howard University Washington D.C.
- A.A.S. Degree, Electronic Technology, May1971, Washington Technical Institute, now call University District of Colombia, Washington D.C.
- Computer Literate, Windows 95 Microsoft office suite of programs and Apple Macintosh operating systems.

References:

Bob Godette Vice President Engineering at Maxwell Inc.

Phone: 562-404-3888 (work)

2. Ed Klien Chief Engineer at Boeing North American Space Systems

Phone: 562-922-2111 (work)

3. Steve Sauer International Arbitration Judge

Phone:213-469-4494 (home)

PROFESSIONAL HISTORY

BOEING COMPANY

Huntington Beach, California 1-26-98 to Present

Senior Engineer Scientist

Working as a Senior Scientist on the International Space Station Program (ISSP). My primary responsibility is to oversee acceptance testing, and systems integration of the S-band and Ku-band communications system on the ISSP.

MAXWELL PRODUCTS INC.,

Cerritos, California

6-95 to 5-97

Electronics Engineer

1. Working as Senior Engineer for the Maxwell Corporation, I had the primary responsibility to be a consultant to the Vice President of Engineering, the President and CEO/Owner for all technical issues regarding exiting and new product development. Responsible for planning the production process for new products. Provided support to the purchasing department developing vendor product specifications, performing material evaluation and testing when required.

2. Developed the prototype electronic controller using the line of Intel one time programmable chips. These chips were programmed to decode either RF or IR signal for the purpose of articulating the

various bed functions.

3. Supervised the production and manufacturing processes, established material and component requirements, performed product testing, and maintained calibration of test equipment.

4. Decided and planned all aspects of the production specifications, supplier selections, design reviews and final tests.

REJUV-A-NATION RESEARCH & DEVELOPMENT Inc., 11-93 to 6/95 Torrance, California

Engineer Consultant

1. Commissioned by a major Corporation to do the research, design and development of three Energy Processing System, as well as, other innovative technologies related to health and fitness.

The charter of the corporation was to provide technical consultation to individuals and corporate

entities and help resolve technical issues and problems.

ROCKWELL INTERNATIONAL Space Systems Division, Downey, California

02-88 to 11-93

Member of Technical Staff level 5 to Systems Integration Project Engineer

As a MTS 5 I provided support to the SABIR System Test Plan and SABIR Acceptance Test Integration. ake included the following:

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DENNIS S. WATTS

18609 Crenshaw Blvd., Torrance, California. 90504 Bus.: 310-715-1689 - Fax: 310-715-2555

Date: 8-02-99

RE: Electrical Engineering. Systems Integration, Program Management

My resume is enclosed for consideration. The following professional accomplishments, which are representative of my background and experience.

- Proficient at defining program goals and requirements; assessing operations; formulating, planning and implementing improvements; instituting effective policies/ procedures; and minimizing costs.
- Systems and "big-picture" oriented. Able to anticipate, prevent, troubleshoot and resolve difficult technical or administrative issues which potentially impact costs and schedules.
- Adept at applying progressive, hands-on leadership to optimize efficiency and cost effectiveness, while ensuring adherence to schedule, budget and quality standards.
- Proven record of achievement during all phases of high value programs. Excel as an independent problem-solver/facilitator. Solid public speaking skills.
- Assertive and decisive, yet tactful and diplomatic. Ability to establish excellent rapport and open communications channels between various disciplines.

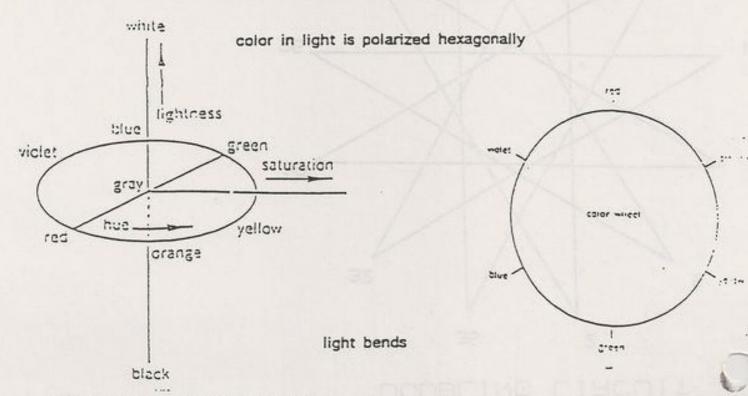
I am confident that a personal interview would convey my strong work ethic, positive attitude, and qualifications that would meet your organizations business objectives. Thank you for your consideration and I look forward to your positive response.

Sincerely,

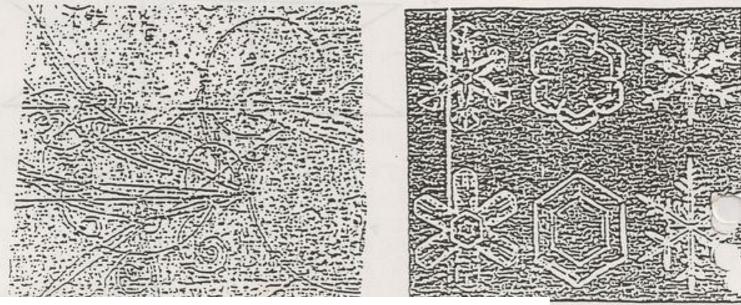
Enclosure:

Dennis S. Watts

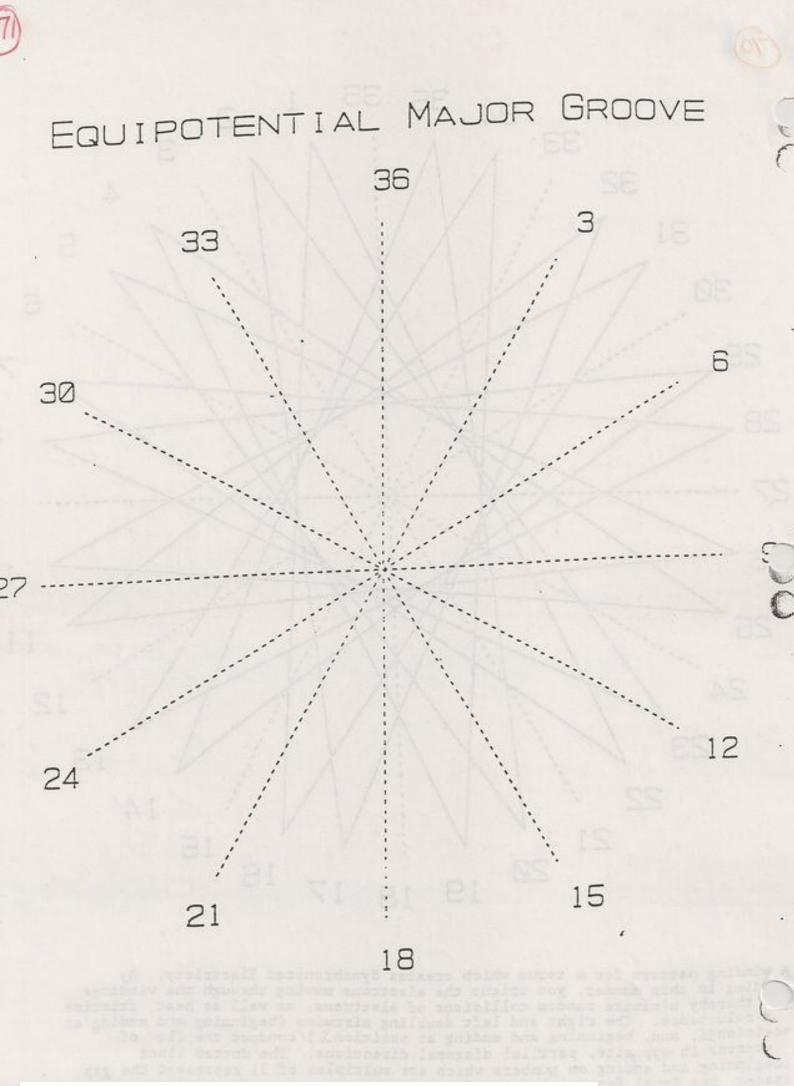
THE UNSEEN ETERNAL AETHERON FUX MONOPOLE EMANATIONS OF PHASED-ARRAY QUASI-MASS ENERGY HORIZONTAL HEXAGONAL SPIRE ROTATION CYCLE

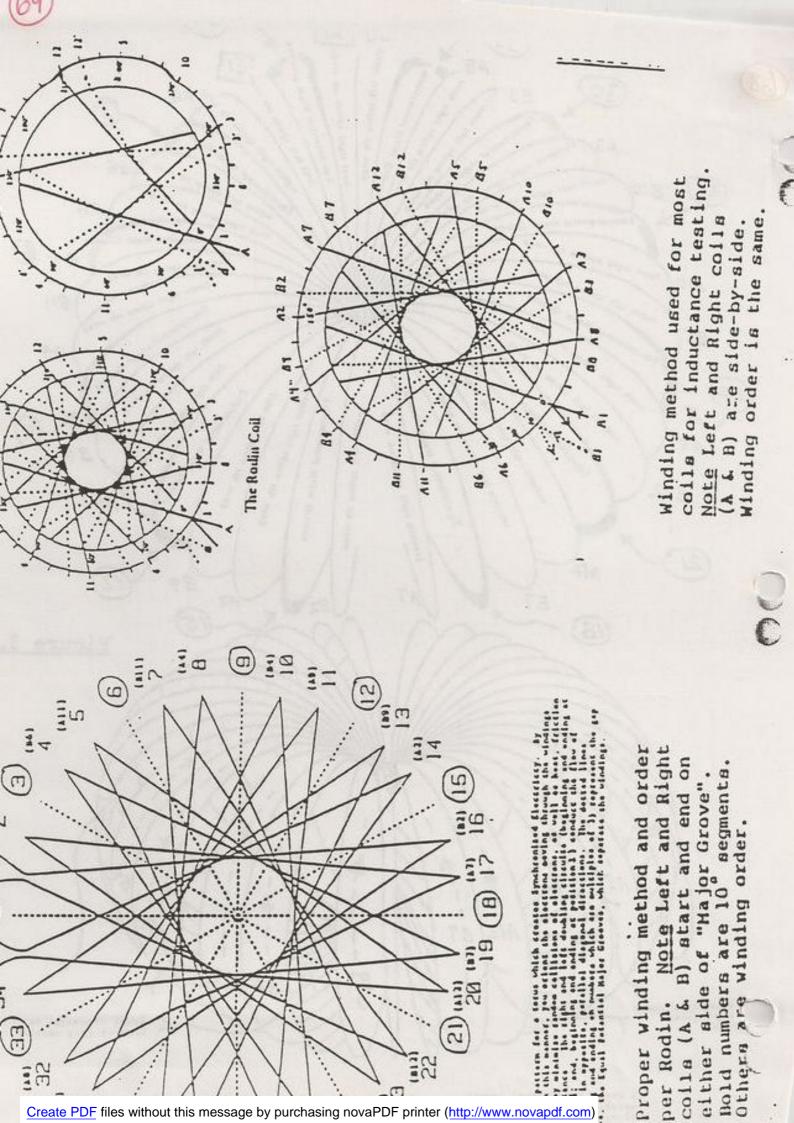


Heavy water experiments clearly show the curved trajectories of the logarithmic spiral three dimensional motion. Only the unseen Eternal Aetheron Flux Monopole Emanations are linear while everything else with any minute amount of mass curves in its direction of travel as it is being wrapped around by the phased—array Quasi—mass energy penetrating influence cutting action and results into the triangular/hexagonal configuration which is clearly visible in all snowflakes as a result of the unique Aero Dynamics signature superimposed harmonics trinary dwell setting peak creative action cause firing rate.



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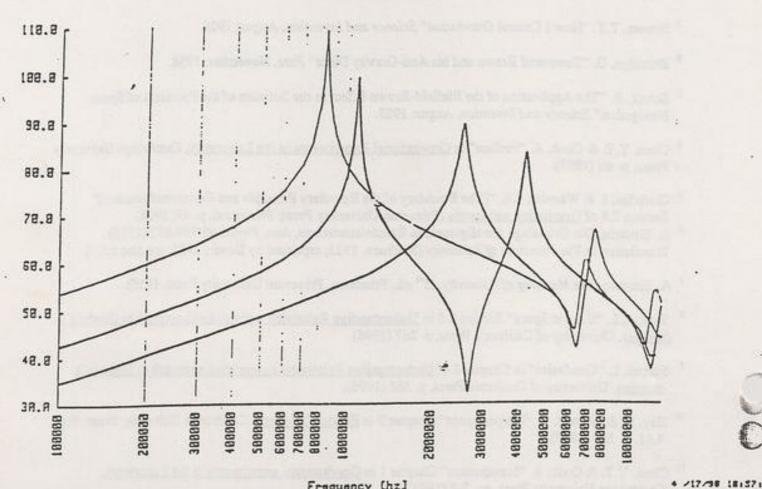




IMPEDANCES VERSUS FREQUENCY -- 4 /17/98

for RODIN Toroid Li coil for RODIN Torold L2 coll Z-am for RODIN Toroid series opposing

for RCDIN Toroid series aiding



Frequency (hz]

Graph Four - Expanded view of various Rodin configuration impedance's for frequencies between one megahertz and ten megahertz.

There are several points where the individual windings whether connected to cooperate or oppose each other yield identical results indicating a dimension not present in conventionally wound and understood coils in the region between five million and six million hertz. They track each other just beautifully.

There are two apparent distinctive fields oriented a precise ninety degrees from each other however it is uncertain whether or not there is a distinctive boundary between the expression of these fields or whether there is a linear rotation from one to the other which certainly would create a vortexial spin as predicted by Marko's mathematics.

Conventional sensing and measuring techniques will not reflect such an action. It is therefore imperative that unconventional techniques be found to show whether or not Create PDF files without this message by purchasing novaPDF printer (http://www.novapdf.com) a field of 55)

spacetime metrics represents the source of the Biefield-Brown Effect through introducing a local spacetime curvature that is significantly different from the background spacetime curvature induced by the earth. The spacetime curvature is induced by the nonidentical values of the individual spacetime metrics of adjacent positively and negatively-charged spacetime.

3.4 IMPLICATIONS

The implications of this examination are profound, namely the possible production of an entirely novel form of propulsion using electric fields to engineer general relativity directly on the benchtop! Currently, general relativity is primarily the province of astrophysics, as the large masses needed to produce observable effects are all astrophysical.

However, the heretofore unrecognized potential of using high electric fields to engineer general relativity directly on the benchtop gives the physicist the chance of testing general relativity and its predictions in an entirely novel and practical way—within the laboratory.

Moreover, the use of this approach as a propulsion system provides the engineer with a notably feasible method of engineering "antigravity" by using appropriate charges to curve space away from any object selected. This can be used to accomplish gravitational shielding or deflection.

Lastly, the conjectures of this theory will have to be worked out in more detail mathematically and physically. It is hoped that this will be accomplished in the near future primarily by the efforts of the physicist Patrick Cornille.

The financial support of this project is therefore solicited to facilitate this promising endeavour.



1.5 GENERAL RELATIVITY

General relativity gives a geometrical account of gravitation: small, compact test bodies move along geodesics of space-time so that their accelerations are determined solely by that geometry and do not depend at all upon the nature of the material. Other bodies have the sole effect that they alter the space-time geometry. In the neighbourhood of an isolated, compact massive body the metric of space-time is the Schwarzschild metric,

$$ds^2 = (1 - 2GM/rc^2)(dx^0)^2 - (1 - 2GM/rc^2)^{-1}dr^2 - r^2d\theta^2 - r^2\sin^2\theta d\phi^2, \quad (7.3)$$

where ds is the infinitesimal space-time interval, x^0 is ct and θ and ϕ are the colatitude and azimuthal angle in spherical coordinates.

When GM/rc^2 is much less than 1 (as it is at the surface of the earth's equator: GM_e/r_e $c^2 \equiv 7.0 \times 10^{-10}$), the metric may be taken to be

diag [
$$(1-2GM/rc^2)$$
, -1, -1, -1] , (7.4)

while the equation of motion reduces to

$$\frac{\mathrm{d}^2 x}{\mathrm{d}r^2} = \frac{\mathrm{d}}{\mathrm{d}r} \left(-\frac{GM_e}{r} \right),\tag{7.5}$$

which is just Newton's law with a potential V of the form $-GM_e/r$, so that the inverse square law is the first approximation with the Schwarzschild metric.¹¹

The gravitational inverse square law is thus the direct consequence of general relativity. Schwarzschild's 1916 solution was written as 12

$$ds^{2} = -(1 - 2M/r)dr^{2} + (1 - 2M/r)^{-1}dr^{2} + r^{2}(d\theta^{2} + \sin^{2}\theta d\phi^{2}) . \tag{7.31}$$

By assuming that the spacetime geometry generated by a spherically symmetric object is itself spherically symmetric, and by requiring that we recover the classical gravity theory, for large r, in the weak field region, we find that M is the mass of the central body.¹³

2.0 EXACT SOLUTION OF THE REISSNER-NORDSTROM EQUATION

A solution of the field equation in a region with no matter but with a radial electric field, is the Reissner-Nordstrom metric: 14,15

$$ds^{2} = -(1 - 2M/r + Q^{2}/r^{2})dr^{2} + (1 - 2M/r + Q^{2}/r^{2})^{-1}dr^{2} + r^{2}(d\theta^{2} + \sin^{2}\theta d\phi^{2}) . \quad (7.4)$$

It fulfills the case where

$$E = (Q/r^2)e_r$$
 $B = 0$ (7.41)

i.e., the electric field is electrostatic and no magnetic field exists (e, is the radial unit vector). In the weak field region, M and Q are identified with the mass and the charge of the central body.

As you can see, charge(Q) too can curve spacetime. This leads to the potential of engineering the vacuum's spacetime curvature using electric fields.

Ciufolini, I. & Wheeler, J.A. Fundamental and Astronomical Constants and Units, p. 495 in Gravitation and Inertia, Princeton Series in Physics, Princeton University Press, Princeton, New Jersey (1995).

61)

Section II

Part I

Theory

ENGINEERING GENERAL RELATIVITY ON THE BENCHTOP

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by Oscar Hsu

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ABSTRACT

This is a concept paper that proposes a general relativistic model of the Biefield-Brown Effect. Understood from the standpoint of GR, the author proposes a consideration of the motion of a charged capacitor as a result of electrostatically-induced spacetime curvature. It is proposed that a negative and positive charge induce locally opposite directions of spacetime curvature, such that a charged capacitor moves "down" the slope between them, along the geodesic established thereof. The author proposes that electric fields, which are some 10⁴⁰ times stronger than the gravitational force of isolated mass, are a powerful way of introducing spacetime curvature and engineering general relativity in a practical manner on the benchtop, as illustrated by the Biefield-Brown Effect—the motion of a charged capacitor towards its positive pole under high voltages.

1.1 INTRODUCTION

T. Townsend Brown was always of the opinion that his Biefield-Brown capacitors were all in some way, influencing gravitation. Bradford Shank, a nuclear physicist, formerly of Los Alamos, and an associate of Brown's, expressed his theory of their operation as the result of an "electrogravitational" field:

"This field acts like a wave, with the negative pole at the top of the wave and the positive pole at the bottom, the saucer travels like a surfboard on the incline of a wave that is kept continuously moving by the saucer's electrogravitational generator . . . Since the saucer is traveling on the incline of a continually moving wave which it generates to modify the earth's gravitational field, no mechanical propulsion is necessary . . . The electrogravitational saucer creates its own "hill," which is a local distortion of the gravitational field, then it takes this "hill" with it at any chosen direction at any rate . . . which is analogous to putting [it] on the incline of a hill."

By replacing 'wave' or 'hill' with spacetime curvature, we have the basic notions necessary to interpret the Biefield-Brown Effect in terms of general relativity (GR).

RESULTS

Jim Girard is a colleague of mine who I have known for many years. Jim is an electrical engineer and an expert in Tesla coil construction, which is an ideal device to use in the generation of high voltages inexpensively. Several years ago, Jim replicated the basic second experiment of T. Townsend Brown in which he observed a vertical thrust on a charged capacitor. Here reproduced, are his results: (in italics)

Materials and Methods

Electrodes: Aluminum foil (the plates of the capacitor) Dielectric: sheets of mylar rated for 250 kV (insulator)

DC Source: Tesla coil with variable output of 200 kV, output rectified to produce pulsed DC.

Observations: Each time the capacitor was charged, the weight of the capacitor was reduced by >100% since vertical motion upward was observed. The thrust remained as long as the capacitor was not discharged, even when the power supply was turned off. The capacitor returned to the floor only after it was discharged. The experiment was repeated 12 times with the same result.

Commentary: Girard maintains that better results could have been obtained if the dielectric was submerged in oil, because leakage/short-circuiting (voltage arcing) was observed around the dielectric.

DISCUSSION

Preiously, in the introduction, I noted that five factors intensify the Biefield-Brown effect:2

- ↑V, increasing the voltage V;
- 2. TK, increasing the dielectric constant K;
- A, increasing the area of the plates A;
- 4. $\downarrow d$, decreasing the distance between the plates d; and
- ↑m_K increasing the mass of the dielectric, m_K.

With modern technology today, all five factors can be optimized:

- \(\bar{V} \): Voltage is not a limiting factor. Millions of volts are easily obtainable with Tesla coils or other sources, rather the limits on voltage are imposed more by the dielectric strengths of the dielectric and the puncture voltages they can withstand.
- TK: Currently, niobates and titanates offer the highest dielectric constants in ferroelectric ceramic dielectrics. Some formulated ceramics can offer dielectric constants as high as 30,000.
- 3. A: As can be seen from Brown's progress, area is perhaps one of the easiest factors to optimize the effect. However, when factoring in geometry, increased areas often lead to larger gap distances d which negatively compensates for the gains derived by area. Since the effect is polar, capacitors cannot be rolled into cylindrical shapes to maximize area. They must maintain an essentially plate-like configuration.
- 4. \$\square\$d: Brown notes in his US Patent that the effect depends on a nonlinear convergence of the electric flux density lines from a region of relatively low density (positive pole) to a region of relative high density (negative pole).
- 5. $\uparrow m_{K}$: This factor will likely depend on theoretical and experimental research into which is more important to optimize, the dielectric constant or the dielectric mass.

[&]quot;NOVACAP's Technical Brochure, "The Basic Capacitor", p. 2 (http://www.novacap.com/broch003.htm).

where K = the dielectric constant of the insulator between the plates (≥ 1), ε_0 = the electric permittivity of free space (8.85 x 10^{-12} C²/N·m²), A = the area of the plates (in square meters, m²), and d = the separation distance between the plates (in meters, m).⁴

Thus using equations (1.0) and (1.1) one can mathematically predict four of the five factors that

intensify the Biefield-Brown effect:2

- TV, increasing the voltage;
- 2. TK, increasing the dielectric constant;
- 3. ÎA, increasing the area of the plates; and
- \$\sqrt{d}\$, decreasing the distance between the plates.

Factors 2-4 increase the capacitance C of a capacitor, and factors 1-4 increase the charge Q of a capacitor.

However, the fifth factor,

Tmk increasing the mass of the dielectric,

is apparently inexplicable from the electromagnetic viewpoint. Classically, it does not affect either capacitance C or charge Q. However, if the positive and negative poles of the capacitor are idealized as charged point masses, it is possible to apply the principles of general relativity (GR) to a description of the Biefield-Brown effect as a manifestation of spacetime curvature. In the region in between the two plates, occupied by the dielectric, the spacetime metric can be described by a combination of the Reissner-Nordstrom metric sand the Schwarzschild metric, where the contributions from the plates are expressed in Reissner-Nordstrom form and the contribution from the dielectric is expressed in Schwarzschild form:

$$\begin{split} \mathrm{d}s^2 &= -(1-2m_s/r+q_*^2/r^2)\mathrm{d}r^2 + (1-2m_s/r+q_*^2/r^2)^{-1}\mathrm{d}r^2 + r^2(\mathrm{d}\theta^2 + \sin^2\theta\,\mathrm{d}\phi^2) + \\ &- (1-2m_s/r+q_*^2/r^2)\mathrm{d}r^2 + (1-2m_s/r+q_*^2/r^2)^{-1}\mathrm{d}r^2 + r^2(\mathrm{d}\theta^2 + \sin^2\theta\,\mathrm{d}\phi^2) + \\ &- (1-2m_S/r) \qquad \mathrm{d}r^2 + (1-2m_S/r)^{-1} \qquad \mathrm{d}r^2 + r^2(\mathrm{d}\theta^2 + \sin^2\theta\,\mathrm{d}\phi^2) \;. \end{split} \tag{2.0}$$

These equations are approximations since they are the exact solutions for the weak field region (r great) without matter from point sources, and of course, we are interested in the near-field, strong-field solutions in the presence of matter. However, their general form gives some insight into the relative contributions of charge and mass. Hence it would not be surprising from a general relativistic interpretation of the mechanism of Biefield-Brown propulsion that the mass of the dielectric m_K would play a factor. In that case as mass curves spacetime, the greater the mass of the dielectric, the greater the spacetime curvature will be. Thus one can see that the five factors that increase the Biefield-Brown Effect can all be related in a simple fashion to engineering the curvature of spacetime electrostatically using high induced charges.

The intellectual precedent for such theoretical speculation as to the mechanism of the Biefield-Brown Effect lie with Prof. Biefield who was a close friend and classmate of Einstein in Zurich. It is worth noting that Dr. Biefield had been interested in the subject of gravitation for many years. As Biefield said, "I am constantly on the 'look-out' for something that might represent an 'electrodynamic-gravitational' coupling." According to his family, "T. Townsend Brown was a leader in developing theories concerning the link between electromagnetic and gravitational fields theorized by Dr. Albert Einstein." Brown himself believed that Einstein had achieved a correct "Unified Field Theory."

The key to engineering the curvature of spacetime significantly lies in thus maximizing applicable voltage to a capacitor with high dielectric strength and capacitance. Accordingly, the development of a launch vehicle depends primarily on materials research and application. For example, barium titanate (BaTiO₃, a baked ceramic) can offer a dielectric constant K of 6,000 in certain cases. For now it is sufficient to appreciate that BaTiO₃ can increase the capacitance of a capacitor by at least three orders of magnitude under the proper frequency and temperature conditions. The key towards optimizing the effect for practical applications lies in finding and using materials that optimize the capacitance C of the capacitor. That is discussed in Section III, Engineering, of this proposal.

[&]quot;The Thomas Townsend Brown Site" at http://www.soteria.com/brown/main.htm



The Big Question is, Will the 21st century see the acceptance, development, and implementation of Bearden's ideas (in plain public view, mind you), or will Scalar EM be found to have been just another dead end?....

Do certain world governments have these devices NOW?... Bearden says at least "three other nations, not hostile to the U.S.," now possess Scalar technology.

We need to build something... Hey, didn't somebody use a strong magnetic field to levitate a frow recently?.... I wonder how far we are from a real Hoverboard?

Back to Scalar EM page Back to Main Menu Back to Homepage

OSCAR K.H. HSU

A DIESTINGO ST	Research and develop Rodin coil into an aerospace propulsion device				
EXPERIENCE	moon familys Components. To February Sto company wa	carre to Sup			
	1994-1998 UCI Dept. of Anatomy & Neuroscience	Irvine, Ca			
	Project Investigator	and the said			
	 Involved in technology transfer of associate's invention of succe regeneration of mammalian brain using growth factors and EM fiel 				
	 UCI expert in high-resolution microscopy and biophysics of EM fields. 				
	 Developed way to determine ocular dominance using evoked po 				
	1990-1994 Harvard Medical School Research Scientist	Boston, M			
	X-ray Crystallographer at Howard Hughes Medical Research Institute.				
	FORD Grant to study Physics of Laser Interaction with Brain Tissue.				
	Neuroanatomy & Math Modeling of REM Sleep Circuitry in the Brain.				
	■ Neuroanatomy & Wath Wodeling of Relivious Code	,			
	1989–1991 Jet Propulsion Laboratory, NASA Member of Galileo Magnetic Fields and Particles Team	Pasadena, Cá			
	Predicted correctly the magnetic moment of the planet Neptune.				
	 Computer model of Neptune's magnetosphere appears in 	n Science 1989.			
	Consultant to JPL Public Relations Video of Neptune's	Magnetic Fields.			
EDUCATION					
The same	1989–1992 Harvard College B.A., Biology	Cambridge, MA			
	Graduated Magna Cum Laude with Highest Honors				
	1992–1993 Harvard University	Cambridge, MA			
	M.A., Biology	Biology			
	 Summa Cum Laude Thesis on math model of REM sleep cycling 				
HONORS:					

1993 USA-Today All-USA College Academic Team Member

where \hat{e}_k is the polarization unit vector and V the cavity volume. In terms of these variables, the single-mode phase-averaged energy is

$$\langle E_k \rangle = \frac{1}{2} (P_k^2 + \omega_k^2 Q_k^2).$$
 (11)

Note the parallels between equations (10) and (4) and equations (11) and (3). Just as mechanical quantization is done by replacing position, x, and momentum, p, by quantum operators \hat{x} and \hat{p} , so is the "second" quantization of the electromagnetic field accomplished by replacing A with the quantum operator \hat{A} , which in turn converts E into the operator \hat{E} , and B into \hat{B} . In this way, the electromagnetic field is quantized by associating each k-mode (frequency, direction and polarization) with a quantum-mechanical harmonic oscillator. The ground-state of the quantized field has the energy

$$\langle E_{k,0} \rangle = \frac{1}{2} (P_{k,0}^2 + \omega_k^2 Q_{k,0})^2 = \frac{1}{2} \hbar \omega_k$$
 (12)

that originates in the non-commutative algebra of the creation and annihilation operators. It is as if there were on average half a photon in each mode.

ZERO-POINT FIELD IN STOCHASTIC ELECTRODYNAMICS:

A common SED treatment (cf. Boyer 1975 and references therein; also the comprehensive review of SED theory by de la Peña and Cetto 1996) has been to posit a zero-point field (ZPF) consisting of plane electromagnetic waves whose amplitude is exactly such as to result in a phase-averaged energy of $\hbar\omega/2$ in each mode (k,σ) , where we now explicitly include the polarization, σ . After passing to the continuum such that summation over discrete modes of propagation becomes an integral (valid when space is unbounded or nearly so) this can be written as:

$$\mathbf{E}^{ZP}(\mathbf{r},t) = \operatorname{Re} \sum_{\sigma=1}^{2} \int d^{3}k \hat{\varepsilon}_{\mathbf{k},\sigma} \left[\frac{\hbar \omega_{\mathbf{k}}}{8\pi^{3}\epsilon_{0}} \right]^{\frac{1}{2}} \exp(i\mathbf{k} \cdot \mathbf{r} - i\omega_{\mathbf{k}}t + i\theta_{\mathbf{k},\sigma}), \tag{13a}$$

$$\mathbf{B}^{ZP}(\mathbf{r},t) = \operatorname{Re} \sum_{\sigma=1}^{2} \int d^{3}k (\hat{k} \times \hat{\varepsilon}_{\mathbf{k},\sigma}) \left[\frac{\hbar \omega_{\mathbf{k}}}{8\pi^{3}\epsilon_{0}} \right]^{\frac{1}{2}} \exp(i\mathbf{k} \cdot \mathbf{r} - i\omega_{\mathbf{k}}t + i\theta_{\mathbf{k},\sigma}), \tag{13b}$$

where $\theta_{\mathbf{k},\sigma}$ is the phase of the waves. The stochasticity is entirely in the phase of each wave: There is no correlation in phase between any two plane electromagnetic waves \mathbf{k} and \mathbf{k}' , and this is represented by having the $\theta_{\mathbf{k},\sigma}$ phase random variables independently and uniformly distributed between 0 and 2π .

DAVIES-UNRUH EFFECT:

In connection with "Hawking radiation" from evaporating black holes, Davies (1975) and Unruh (1976) determined that a Planck-like component of the ZPF will arise in a uniformly-accelerated coordinate system with constant proper acceleration a (where |a| = a) having an effective temperature,

$$T_a = \frac{\hbar a}{2\pi ck}.$$
 (14)

This temperature is negligible for most accelerations. Only in the extremely large gravitational fields of black holes or in high-energy particle collisions can this become significant. This effect has been studied using both quantum field theory (Davies 1975, Unruh 1976) and in the SED formalism (Boyer 1980). For the classical SED case it is found that the spectrum is quasi-Planckian in T_a . Thus for the case of no true external thermal radiation (T=0) but including this acceleration effect (T_a), equation (2b) becomes

$$\rho(\nu, T_a) d\nu = \frac{8\pi\nu^2}{c^3} \left[1 + \left(\frac{a}{2\pi c\nu} \right)^2 \right] \left[\frac{h\nu}{2} + \frac{h\nu}{e^{h\nu/kT_a} - 1} \right] d\nu, \tag{15}$$



THE ZERO-POINT FIELD FROM PLANCK'S WORK:

In the year 1900 there were two main clouds on the horizon of classical physics: the failure to measure the motion of the earth relative to the ether and the inability to explain blackbody radiation. The first problem was resolved in 1905 with the publication of Einstein's "Zur Elektrodynamik bewegter Körper" in the journal Annalen der Physik, proposing what has come to be known as the special theory of relativity. It is usually stated that the latter problem, known as the "ultraviolet catastrophe," was resolved in 1901 when Planck, in "Über das Gesetz der Energieverteilung im Normalspektrum" in the same journal, derived a mathematical expression that fit the measured spectral distribution of thermal radiation by hypothesizing a quantization of the average energy per mode of oscillation, $\epsilon = h\nu$.

The actual story is somewhat more complex (cf. Kuhn 1978). Since the objective is to calculate an electromagnetic spectrum one has to represent the electromagnetic field in some fashion. Well-known theorems of Weyl allow for an expansion in countably many infinite electromagnetic modes (e.g. Kurokawa 1958). Every electromagnetic field mode behaves exactly as a linear harmonic oscillator. The Hamiltonian of a one-dimensional oscillator has two terms, one for the kinetic energy and one for the potential energy:

$$H = \frac{p^2}{2m} + \frac{Kx^2}{2}. (1)$$

The classical equipartition theorem states that each quadratic term in position or momentum contributes kT/2 to the mean energy (e.g. Peebles 1992). The mean energy of each mode of the electromagnetic field is then $\langle E \rangle = kT$. The number of modes per unit volume is $(8\pi\nu^2/c^3)d\nu$ leading to the Rayleigh-Jeans spectral energy density $(8\pi\nu^2/c^3)kTd\nu$ with its ν^2 divergence (the ultraviolet catastrophe).

In his "first theory" Planck actually did more than simply assume $\epsilon = h\nu$. He considered the statistics of how "P indistinguishable balls can be put into N distinguishable boxes." (Milonni 1994) So Planck anticipated the importance of the fundamental indistinguishability of elementary particles. With those statistics, the average energy of each oscillator becomes $\langle E \rangle = \epsilon/(\exp(\epsilon/kT)-1)$. Assuming that $\epsilon = h\nu$ together with the use of statistics appropriate to indistinguishable energy elements then led to the spectral energy distribution consistent with measurements, now known as the Planck (or blackbody) function:

$$\rho(\nu, T)d\nu = \frac{8\pi\nu^2}{c^3} \left(\frac{h\nu}{e^{h\nu/kT} - 1}\right) d\nu. \tag{2a}$$

Contrary to the cursory textbook history, Planck did not immediately regard his $\epsilon = h\nu$ assumption as a new fundamental law of physical quantization; he viewed it rather as a largely ad hoc theory with unknown implications for fundamental laws of physics. In 1912 he published his "second theory" which led to the concept of zero-point energy. The average energy of a thermal oscillator treated in this fashion (cf. Milonni 1994 for details) turned out to be $\langle E \rangle = h\nu/(\exp(h\nu/kT) - 1) + h\nu/2$ leading to a spectral energy density:

$$\rho(\nu, T)d\nu = \frac{8\pi\nu^2}{c^3} \left(\frac{h\nu}{e^{h\nu/kT} - 1} + \frac{h\nu}{2} \right) d\nu.$$
 (2b)

The significance of this additional term, $h\nu/2$, was unknown. While this appeared to result in a ν^3 ultraviolet catastrophe in the second term, in the context of present-day stochastic electrodynamics (SED; see below) that is interpreted as not to be the case, because this component now refers not to measurable excess radiation from a heated object, but rather to a uniform, isotropic background radiation field that cannot be directly measured because of its homogeneity. Planck came to the conclusion that the zero-point energy would have no experimental consequences. It could be thought of as analogous to an arbitrary additive constant for potential energy. Nernst (1916), on the other hand, took it seriously and proposed that the Universe might actually contain enormous amounts of zero-point energy.

Work on zero-point energy in the context of classical physics was essentially abandoned at this stage as the development of quantum mechanics, and then quantum electrodynamics (QED), took center stage. However the parallel concept of an electromagnetic quantum vacuum soon emerged.

- 3
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Return on Investment

If the Rodin coil is going to have an application, one of the most likely places is in space. Economics in space is different from economics on earth. If a communication satellite, for instance costs \$100 million to build, and you can save a little weight by using a component that costs \$1,000 to replace a heavier component that costs \$10, you do it. Weight is everything and cost means almost nothing. Saving on weight makes the idea attractive. This is only one of the possibilities; there is much application in space.

The Current Research Thrust by NASA and USAF

Gravity researcher Robert Forward accepted an assignment to review the concepts put forward by Haisch, Rueda, and Puthoff that gravitation originates from zero-point field-charge interactions.²⁷

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. Part of it reads:

"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 four experiments to be carried out to address the HRP concept and its implications. The highest priority was given to measuring the Casimir force accurately—a study that has been carried out independently by Lamoreaux.

The implication is that geometry—the creation of resonant cavities through symmetrical form—alters the local vacua such that forces like the Casimir force can arise through the asymmetric deformation of the zero-point energy spectrum.

The Author's Hypothesis

My hypothesis is that the presumed Rodin effect observed in the Ramsay coils are a long-range Casimir effect that results from the geometry of the coil itself. Multiple resonant cavities give rise to a deformation of the zero-point field spectrum with the electrons of the copper wire. This leads to a number of standing waves producing a deformation in the gravitational scalar potential, leading to an altered gravitational vector force field. A preliminary Newtonian model of this was proposed by Sciama²⁸ in which gravitation arises via the usual scalar potential $\Phi = \int_V (\rho / r) dV$, while inertia arises via the next higher extension, a vector potential, $A = -(\Phi/c)v(t)$. This is very much in line with the original Sakharov concept and with the approach Einstein¹⁹ took in 1911 (with later corrections) involving a speed of light which is dependent on gravitational potential, c (Φ).

Proposal

My proposal is to take the same approach NASA has taken towards the Podkletnov work and apply it to the Ramsay-Rodin coil. The first thing that needs to be done is experimental verification and documentation of the empirical weight asymmetries observed by Ramsay. To that end, I am requesting an equivalent \$70,000 grant (same as that given to Superconductive Components by NASA) to do the identical task set to them by NASA: duplicate the coil and someday enlarge it.

NASA also set the condition that if Podkletnov's disk could be duplicated, it could lead to a second award of \$750,000. I am not asking for that yet, but contingent upon the replication of Ramsay's results that amount would be the correct amount for creating a larger prototype of the Rodin coil.

Lastly, consistent with the funding expectations of NASA, the support of a 1-3 year task to research the Ramsay-Rodin coil would entail a moderate grant of \$50-\$150,000 (\$50,000/yr.)

41)

According to Whittaker, the gravitational force potential is composed of a harmonic series of standing waves where the standing waves are composed of bidirectional wave pairs, an incident wave and its reflection. Whittaker proved that the gravitational force potential was defined in terms of standing waves of simple plane waves propagating with constant velocity.

Whittaker commenced his statement with Laplace's equation:

$$\nabla^2 V = \nabla V \cdot \nabla V = \partial^2 V / \partial x^2 + \partial^2 V / \partial y^2 + \partial^2 V / \partial z^2 = 0, \qquad (0.80)$$

which is satisfied by the potential of any distribution of matter which attracts according to Newton's law, varying as the inverse square of the radius (Eq. 0.7). The gravitational force potential f at any point (x,y,z) of any distribution of matter of mass m, situated at the point (a,b,c) which attracts according to this law is:

$$f(z + ix \cos u + iy \sin u, u)du , \qquad (0.81)$$

where u is a periodic argument. The most general solution of Laplace's equation using this expression is:

$$V = \int_{0}^{2\pi} f(z + ix \cos u + iy \sin u, u) du , \qquad (0.82)$$

where f is an arbitrary function of the two arguments:

$$z + ix \cos u + iy \sin u$$
 and u . (0.83)

Functions which satisfy Laplace's equation are called harmonic. In order to express this solution as a series of harmonic terms, Whittaker showed that it is only necessary to expand the function f as a Taylor series with respect to the first argument $z + ix \cos u + iy \sin u$, and as a Fourier series with respect to the second argument u.

Whittaker also showed that the general solution of the partial differential wave equation:

$$\partial^{2}V/\partial x^{2} + \partial^{2}V/\partial y^{2} + \partial^{2}V/\partial z^{2} = k^{2} \partial^{2}V/\partial z^{2}, \qquad (0.84)$$

where k = a constant, and the Laplacian of a force V produces a scalar function that is the equivalent of a constant squared times the second partial-derivative of V with respect to time, is:

$$V = \int_{0}^{2\pi} \int_{0}^{2\pi} f(x \sin u \cos v + y \sin u \sin v + s \cos u + t/k, u, v) du dv, \qquad (0.85)$$

where f is now an arbitrary function of the three arguments:

$$x \sin u \cos v + y \sin u \sin v + s \cos u + t/k, u, v, \qquad (0.86)$$

and can be analyzed into a simple plane wave solution. Therefore, for any Newtonian gravitational force varying as the inverse square of the distance, the potential of that force satisfies both Laplace's equation and also a general solution of the partial differential wave equation, and can be analyzed into simple plane waves propagating with constant velocity. The sum of these waves, however, does not vary with time, i.e. they are standing waves. Therefore the force potential can be defined in terms of both standing waves and by propagating waves, i.e. by its components.

Furthermore, Whittaker demonstrated that any electromagnetic field, e.g., the electric force field E and the magnetic force field B, can be expressed in terms of the second partial derivatives of two scalar potential functions C and D, and equivalent in mathematical form to the gravitational scalar potential function:

$$\frac{\partial^{2} C / \partial x^{2} + \partial^{2} C / \partial y^{2} + \partial^{2} C / \partial z^{2} - [1/c^{2}] \partial^{2} C / \partial z^{2} = 0,$$

$$\frac{\partial^{2} D / \partial x^{2} + \partial^{2} D / \partial y^{2} + \partial^{2} D / \partial z^{2} - [1/c^{2}] \partial^{2} D / \partial z^{2}.$$
(0.87)

where k = 1/c (see Eq. 0.84 below).²² Whittaker²³ was the first to prove that an electromagnetic field in vacuum at points away from the sources can be expressed in terms of only two scalar potentials, each satisfying the homogeneous wave equation.⁶





One "Rodin wrap" is the length of one segment of wire from the outer torus edge, through the center and back to the edge of the next 150° step. One "Rodin turn" is all 12 wraps from start to end (same point) after going round the form 5 times for a total of 1800°. In multi-turn coils, the wire for each successive turn passes over the previous ones in order to progress to the same sides, left or right on the outer torus. The dimensions for these parameters are listed below in Table 2:

Color of Torus	One Rodin Wrap	One Rodin Turn	Total Wraps	Total Turns
Blue	5.563 inches	66.75 inches	264	22 (11x2)
Yellow	4.920 inches	59.00 inches	192	16 (8x2)

Table 2. Approximate Dimensions of Rodin Turns and Wraps

The total amount of copper wire used for the blue form was 122 feet, while the total amount of wire used for the yellow form was 79 feet. For additional construction details consult Ramsay (1995). A color xerox of a photograph of a Ramsay coil is included in the appendix for comparison.

Several interesting gravitational effects were found with Ramsay coils based on the Rodin wrapping geometry: two in particular—an 18 turn, solid-wound (full 10° segment) coil on a blue plastic torus, and another (fewer turns) on a yellow plastic torus. Both seemed to have "sidedness" or gravitational parity where depending on what side was placed on a weight scale, the weight of the coils were correspondingly greater or lesser. From a classical perspective, this should not occur since the coil should weigh the same no matter what side is placed on the scale.

Ramsay measured consistent reproducible weight asymmetries, where coils displayed an 8% weight differential between top-up and top-down configurations. For the purposes of designating sidedness, using the right-hand rule, one can designate a counterclockwise wrap as having a top-up/bottom-down parity and a counterclockwise wrap as having a top-down/bottom-up parity. By arbitrarily using this convention and consistently designating one-half of a coil as the top, and the other as the bottom, Ramsay's results demonstrate a sidedness to the coil's mass (see fig. 2):

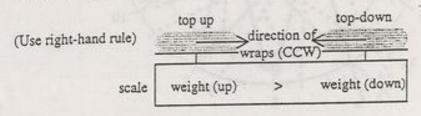


Fig. 2. Weight Asymmetries in Orientation of Ramsay Coils

Legend: when the same coil is weighed on a scale in two of its possible stable configurations, i.e. an arbitrary top-half up and down, there is an 8% weight difference, where top-half up weighs 8% more than top-half down. The weight asymmetry was consistent and reproducible for both blue and yellow Ramsay coils. The arrows ← and → indicate the relative counterclockwise direction for the wrapping sequence of a single coil in its top-up and inverted positions on the scale. Right-hand rule used to define parity (thumb is vector).

The weight asymmetries evidenced by the coils were additive and subtractive with each other, when coils were weighed one on top of the other, the total weight asymmetries were synergistic.

A Comparison of the Podkletnov and Rodin Technologies

The empirical observations of Ramsay's are compelling, for the simple fact that the magnitude of the reported weight asymmetries are 4 times greater than Podkletnov's maximum weight decreases, and they are a weight asymmetries produced by a coil that is much simpler to produce than Podkletnov's. Both coils, Rodin's and Podkletnov's utilize a toroidal geometry. However, Podkletnov reports weight decreases in the vicinity of his coil while Ramsay reports weight decreases of the coil itself in an inverse

THE THEORY

Podkletnov's results are not unreasonable, however. In 1989, Dr. Ning Li of the University of Huntsville, Alabama, predicted that if a time-varying magnetic field were applied to a superconductor, charged and deformed lattice ions within the superconductor could absorb enormous amounts of energy via the magnetic moment effect. This acquired energy would cause the lattice ions to spin rapidly about their equilibrium positions and create a miniscule gravitational field. Dr. Li's calculations showed that if these charged, rotating lattice ions were aligned with one another by a strong magnetic field, the resulting change in local gravity would be measurable.

Li's inference that by the principle of equivalency a spinning inertial effect is equivalent to a gravitational effect is not unlike speculations put forward by Haisch, Rueda, and Puthoff (HRP). HRP analyzed the situation of a point-charge like an electron set into simple harmonic motion by the random fluctuations of the vacuum's zero-point field. These fluctuations are perfectly symmetrical in stationary or uniform-motion frames of reference. However, in an accelerating frame of reference asymmetries in the

zero-point radiation field are perceived by the point-charge.

When an observer in an accelerating frame of reference measures the zero-point background radiation, he obtains an enhanced spectrum relative to the one measured by an observer standing still. If we decompose this enhanced spectrum into the original zero-point spectrum at rest plus an acceleration component, the acceleration component is seen to have the shape of a Planck thermal radiation spectrum. This result was first obtained by Davies (1975) and by Unruh (1976) and is called the Davies-Unruh effect.

HRP posit that the acceleration component leads to asymmetries when electromagnetic field interactions with charged particles are analyzed. Specifically, they investigated the v x B²² force that the zero-point field-driven charged oscillator would experience in an accelerating frame. First, they assumed that the electric component of the zero-point field, E²², drives the point-charge to harmonic oscillation, i.e. creates a Planck oscillator. For simplicity they restricted these oscillations to a yz-plane characterized by the velocity vector v, and they forced the oscillating point-charge to accelerate, via an external agent, in the x-direction with a constant acceleration a perpendicular to v. Second, they then asked what is the effect of the magnetic component of the zero-point field with the oscillating point-charge; specifically, what would the resulting Lorentz force be < v x B²² >? The result was the discovery of a reaction force of the form:

$$F_r = \langle v \times B^{ZP} \rangle = -(\Gamma_Z \hbar \omega_e^2 / 2\pi c^2)a.$$
 (0.5)

Haisch, Rueda, and Puthoff interpreted the quantity in the parentheses as inertial mass,

$$m_i = (\Gamma_Z \hbar \omega_e^2 / 2\pi c^2) \tag{0.6}$$

where Γ_Z is the classical radiation damping constant of Abraham and Lorentz, but now referring to the oscillations, and ω_c was taken to be an effective cut-off frequency of either the zero-point field spectrum itself (perhaps at the Planck frequency) or of the charged particle-field interaction owing to a minimum (Planck) particle size, therebye setting a stage for quantization.¹¹

Now, according to the equivalence principle, a gravitational force is locally indistinguishable from an inertial force. Thus if inertial mass m_i originates in zero-point field-charge interactions, then by the principle of equivalence so must gravitational mass m_t ; i.e if inertia is an electromagnetic phenomenon involving interactions between charge and the zero-point field, then gravitation must be too. Sakharov was the first to conjecture this interpretation of gravity.

Given this coupling between gravity and electromagnetism and our technological proficiency for manipulating eletromagnetism, it has been speculated that it may become possible to use electromagnetic technology to manipulate gravity, inertia, or spacetime to induce propulsive forces. 12

The United States Air Force (USAF)

In order to examine the potential of modifying mass, the Propulsion Directorate of the US Air Force Phillips Laboratory commissioned a study in 1995 to investigate the possibility of defining and carrying out tests of the above concept. As Ning Li noted, Forward was the first to propose unique gravitational effects for superconductors in an electromagnetic field: Since the magnetic moment and the

INTRODUCTION: THE CASIMIR EFFECT

In 1948, the Dutch physicist Henrik Casimir predicted that when two parallel plates are placed in a vacuum at a distance from one another, they should be attracted by a force. 1 Casimir made this prediction based on a theoretical analysis of two plates immersed in a residual background field of fluctuating electromagnetic radiation. This force, the Casimir force, in dynes is2

$$F = -\frac{\pi h c A}{480 d^4}, \qquad (1.0)$$

where A is the area of a plate, d is the distance between the plates, and the dimensions are in centimeters. The force F scales inversely as the fourth power of the separation distance d, and the magnitude of the

force is proportional to π , Planck's constant h, and the velocity of light c.

This attraction between neutral metallic plates in a vacuum was later observed experimentally.2 The actual experiment was carried out in 1958 by M. J. Sparnaay, and it yielded the crucial result that when the temperature of the system is lowered towards absolute zero, the force does not vanish, as we would expect from conventional classical considerations, but instead approaches a constant non-zero value.3 A recent, widely noted experiment by Steven K. Lamoreaux gave a very precise and unambiguous confirmation of the existence of the Casimir force4. His measurements show excellent agreement—to within five percent over the measured range-with theoretical predictions. For plates of area 1 cm2 and separation distance $d = 0.5 \mu m$, the force was $\equiv 0.2 \times 10^{-5} \text{ N}$, as predicted by theory.

The Casimir Force

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A unique feature of this force, when compared to other forces studied in classical and quantum physics, is that it depends neither on mass, nor on charge, nor on any other coupling constants. In the situation of the parallel plates (see Eq. 1.0), it depends only on the geometry of the plates: the plate area A and the separation distance d. The only other components in the equation are two constants which are apparently built into the structure of the universe: Planck's original constant h, that characterizes the size of quantum mechanical effects; and the speed of light c, a velocity that is central to relativity. Conclusion? Geometry alone can produce force from the vacuum . . .

Mechanism of the Casimir Force

How is this possible? An elegant analysis by Milonni et al. at Los Alamos National Laboratory, shows that the Casimir force is due to radiation pressure from the background electromagnetic zero-point energy which has become unbalanced due to the presence of the plates, and which results in the plates being pushed together.5 An enclosed cavity (the volume between the plates) acts as a set of boundary conditions restricting the spectrum of frequencies that can oscillate between the plates. As the plates are brought together, low frequency modes with wavelengths longer than one-half the separation between the plates are excluded. Their zero-point fluctuation energy, 20/2 for each mode, is thus lost. The suppression of such modes leads to a small but discrete field made up of the appropriate summation of each mode which is a subset of the energy density of unbounded space outside the plates. If in addition to energy there is momentum in the zero-point field, then unbounded space would have a greater momentum density than the resonant cavity between the plates. For high frequency modes both inward and outward forces would be balanced; however for low frequency modes, the unbounded space outside the plates would exert an unbalanced pressure since within the plates no low frequency modes exist. Thus the plates would be driven together by the unbalanced "zero-point radiation pressure" exerted by unbounded space.

NASA's Breakthrough Propulsion Physics Program

The fact that through the Casimir effect the vacuum leads to real, physically observable and measurable phenomena leads to speculations that a similar asymmetric vacuum effect could lead to a propulsive effect.6 In an effort to explore just such speculations, NASA has recently established a Breakthrough Propulsion Physics Program (established in 1996) to solicit and support visionary and pioneering propulsion technologies. The program is managed by Lewis Research Center and is funded out

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MASS ASYMMETRIES OF TWO RODIN-RAMSAY COILS

Principals:

Marko Rodin Mathematician Toroid Aerodynamics Box 245 Lihue, HI 96766

Bill Ramsay Electrical Engineer 251 Asa Hall Rd. Iva, SC 29655

Oscar Hsu Theoretical Physicist 465 Noren St. La Canada, CA 91011

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process which I propose to tap in the generation of energy.

Preliminary empirical evidence for such a phenomenon is derived from experimental observations by Bill Ramsay of one coil constructed along the lines of the geometry proposed by Marko Rodin. Bill Ramsay observed two coils demonstrating "sidedness", dowsing one side to be a "light going out" side and one side to be a "light going in" side. Furthermore, one of the two coils demonstrated the peculiar property of organizing a plume of subtle energy or vapor from a glass of water in such a way as to reach a height of 10 cm with the "light going out" side facing up. Similarly, when the "light going in" side faced up over the glass, there was a plume going in while the region appeared darker, as if deprived of some of the ambient light incident on it.

Rodin has previously expressed that the correct embodiment of his coil according to his exacting geometric specifications should result in the ability to create on the benchtop a black hole/white hole pair. Whether this is to be believed or not depends on personal opinion, however Ramsay's preliminary empirical results are consistent with a vortex of some kind—weight measurements of the two coils demonstrating "sidedness" exhibited an 8% difference in weight between the "light going out" side facing down on a scale and the "light going in" side facing down on the scale (these results have been treated elsewhere, see Letter #1 on Weight Asymmetries' and the Extract Paper "Mass Asymmetries of Two Rodin-Ramsay Coils").

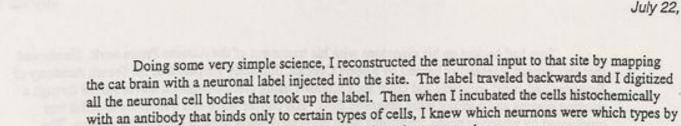
These phenomena can be attributed to a number of possibilities, if for the moment, the results are assumed to be accurately reported. #1 the coils could be locally gating an energy flux from the spacetime continuum, i.e. possibly cohering or locally organizing the directional flux of energy from one continuum to another—this is the possibility most favored by Ramsay. The second possibility, #2, is that the coils introduce a local asymmetric polarization of force, exerting a "push" on one side, and a "pull" on the other, that is due to interactions or coupling between the vacuum itself and the complex geometry of the coil. This interpretation, which is based on the experimental results of the Casimir force measurements, is dealt with in my extract paper, "Mass Asymmetries...etc.". The third possibility, #3, is that the coil directly engineers general relativity—locally engineering the vacuum such that it deterministically curves spacetime to produce a construct that is similar to a black hole and white hole pair, if nonidentical in intensity. This possibility is perhaps the most attractive, and favored both by Marko Rodin, the mathematician who originated the theory, and myself, a physicist attempting to describe it.

It is inappropriate to speculate too much until more definitive documentation is undertaken. Either photodetection of matter-antimatter annihilation or bubble-track cloud chamber tracings of particle-antiparticle pairs would be appropriate. Weak photocurrents can be detected with standard photon counters. Naturally, a picture is worth a thousand words so visual detection is to be prized as highly as numerical data, the cornerstone of quantitative physics.

My proposal is to do some development of film in a darkroom containing a coil and some film in the center. With appropriate controls, any differences in spots or streaks should be immediately recognizable upon visual inspection. Although this technique is not foolproof since gamma rays are the most likely embodiment of matter-antimatter annihilations (and not visible by photographic film), a negative result will not be a definitive null result. However, according to Bill Ramsay cloud chambers are easy to construct, and may be a more established if not less convenient method of demonstrating the detection of particle pairs.

Assuming for a moment that the theory is correct, I envision that a device generating electricity using the principles of the aforementioned process (using a coil to accelerate particles at one another) would take the form of a solar cell at the center of a Rodin-Ramsay coil, for example. The annihilation of particle pairs would result in the generation of high-energy photons which could be converted to electricity through the mediation of a solar cell. A proposal follows in the form of a memorandum and a budget.

July 22, 1998



the antibody-which told me which neurotransmitter they secreted.

This gave me the idea of the function of the site. Naturally, lots of acetylcholine-neurons were inputs to the site. The site would thus receive a strong stimulatory input to drive REM sleep. A small number of inhibitory neurons also fed the site, presumably to fine tune the stimulatory drive to prevent it from overwhelming the brain and overdriving the cat into REM sleep. What I had fun with was modeling this circuit mathematically by using the then prevalent McCarley-Hobson Reciprocal Network Hypothesis and modeling the circuity as two coupled nonlinear oscillating circuits like two on-off amps mutually conneted two one another. This meant using a Lotka-Volterra second-order nonlinear differential equation and computer programming with Mathematica. So I scaled the neuroanatomical features into the model and came up with a simulation. I wanted to see if the type of neuronal input drove the circuit in any direction-towards REM sleep or away. I found that according to the model, the neuronal input that I had found neuroanatomically would drive the circuit towards REM sleep. I called this model ANCAMM-a model that could be used to assess REM sleep sites in the cat brain. It would enable one to make predictions and to test them. Theoretically, it . was pretty good and the thesis won me a Summa Cum Laude grade, the highest possible. So I had made it in research and it proved that I could make it in research. My thesis advisor wanted me to write it up as two papers but I've never had the chance, just been too busy.

After Harvard College, I decided to stay on to get my Master's. I had finished college in three years, so I guess it wouldn't hurt to get my Master's in one year. Most of that year's stuff is relatively uninteresting; I did some physical measurements on laser transmission through mouse cortex with some equipment and took some good graduate courses, but I have little to say about the period.

Although I could go on and on about my Ph.D. work in Biochemistry, most of what I have been involved in after college has been fairly dry, academic, and very conventional. The more interesting work that I have been involved in has been recently, really after meeting Marko. It has been very stimulating meeting Marko. Trying to understand his work has stimulated me to learn new things in physics and to keep abreast of the latest developments. I have had to stretch and it has had a positive effect on my thought processes. Most notably, I have had great success in the field of gravity after I began to ponder Marko's coil. It led to efforts towards grand unification that I think I have had some success in. Recently, I have achieved what I think is a successful theoretical description of an antigravity device that a colleague of mine has successfully replicated. The theoretical description has support from declassified military intelligence documents, most notably from Lt. Major Corso, who personally stewarded the Army's most treasured artifacts, the items retrieved from the Roswell crash.

This theoretical description has been applied both to Marko's coil and to my description of the Biefield-Brown effect with much interest. Charlie Wallach, the ex-vice president of Raytheon wrote to tell me he thought it was very impressive. In general, I think that Marko's coil and a simple capacitor have the capability to engineer general relativity directly on the benchtop, which means engineering the vacuum itself. In this regard, I think we can approach a revolutionary concept nowthe deterministic substructuring of the spacetime continuum itself, either with form or with charge. The future looks promising and the advancement of this work and its development may constitute one of the most anticipated revolutions of modern science.

As Chick Lewis said, "There is a Nobel Prize waiting for all of us." Hopefully, because I promised one as a gift to an old flame many years ago.

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any bio material that might inform him—that was always the nature of our relationship—he was the systems man and I was always the bio man.

Again, I never sent it to him but Tom took it as gospel anyway. In the paper you can see "Hsu's H-potential" in reference to me and DNA. It really is a big trip for me, I can assure you, an ego trip, but it is definitely a bit premature.

DNA does have a zero-sum vectorial structure, but it is not in the nucleotides. One of the base-pairs zero-sum vectorially in their dipole moments but not coincidently in space, only adjacently. The other pair has three dipoles, two in one direction, and one in the other. Their dipole moments do not sum to zero, either, in any case. The result is, that hypothesis does not hold water.

But, the phosphate-sugar dipoles along the backbone do zero-sum, but they are invariant which means how can you encode information with them? If anything they could act like a scalar carrier wave, which is still fine and would excite Tom, but I firmly believe that the magic is in the nucleotides and that's where I've got to look.

Since then, there have been other clues. The dielectric constant of DNA changes with frequency in a nonlinear fashion, which shows that DNA is nonlinear which is good. Some people have showed that π -conjugated systems like organic aromatic ring complexes are good at phase conjugating, which is very interesting. Other people have shown that biopolymers of aromatic ring complexes have other nonlinear optical effects. The point is that DNA throws off photons in the UV range. Alexander Gurwitsch showed that when cells divide, their DNA throws off UV photons, which he called mitogenetic radiation. Later, Fritz-Albert Popp started a whole field of analysis on these biophotons, claiming that there was statistical coherence in these ultraweak emissions, which would allow stochastic resonance to occur, a necessary phenomenon for a signal to convey discrete information when it is weak and below and within the background noise.

So here was an idea that DNA could act like an optical transceiver, similar to what Lakhovsky had speculated except applied to photons not electromagnetic waves. Georges Lakhovsky had of course cured cancer by sending out all kinds of electromagnetic waves of different wavelengths. DNA had a resonant peak in the UV which is optical range and absorbed maximally there.

I had always been fascinated by Tom's discussion of Kaznacheyev's work where he had induced adjacent hermetically sealed populations of cells with disease electromagnetically through the selective transmission of UV photons from adjacent hermetically sealed infected cells. What he did was that he infected cells with a virus and sealed them in one petri dish. Then he put them in a box that had a partition with one window. The window was made out of quartz which would allow UV to pass through, visible light, and IR, and nothing else. Then he put an uninfected population sealed in a dish on the other side of the window in the box. Then he would cover the box. Strangely enough, the uninfected cells would start coming down with the same manifestations of the diseased virally-infected cells. By implication, Kaznacheyev was showing the electromagnetic transmission of disease here. He called this the mirror cytopathogenic effect and it was very cool. To me it meant that these biophotons carried information.

What I thought was what if we could record and detect these biophotons? Could we do a spectral analysis or analyze the waveform of the radiation? Is that where the information was encoded? If we could then perhaps we could artificially synthesize the same waveform, or generate an inverse waveform to cancel out. Perhaps we could phase conjugate the signal using a phase conjugate mirror and return the time-reversed analog of the signal and cancel it out. What Tom was speculating was a universal electromagnetic technique to diagnose and cure any and all diseases. I thought it was a brilliant idea.

graduate at the time. I got the job because I had just won the California State Assembly's Best High School Student of Southern California Award. Pat Nolan, an Assemblyman, came to speak at my graduation to present the award and so I had to give a speech too. It was lonely, I remember looking out, and realizing all my friends were in the front row, but it was a victory of sorts, although a lonely one. So I brought the plaque in my backpack to the interview. Moshe Harel, the scientist asked me what was in the backpack, so I showed it to him. On the basis of that plaque he gave me the job because I was only a high school graduate, but he thought the plaque showed I could think which was more important. That was big for me because he was looking for a college grad-someone who had majored in physics or EE, but he was willing to take a chance. It turned out good for him because I ended up having the best prediction for Neptune's magnetic moment out of all the scientists, which allowed him to model its magnetic field on a computer, and generate a prediction that turned out to surprise everyone because it turned out true. Basically, on encounter, Neptune's magnetic field was oriented in such a way as to be pole-on so that the field lines curved away from the spacecraft. So when Voyager 2 first started transmitting data, there were no measurements of a magnetic field. Immediately scientists began to conjecture, maybe Neptune has no magnetic field. But, because of my prediction, the computer showed the planet would be oriented with its north pole facing the spacecraft. Thus, the spacecraft wouldn't cross into the field until a couple of minutes. Sure enough, a couple of minutes later it crossed over and data started coming back. We got excited and so did the other scientists; they couldn't explain it but we knew why. So my boss went over and explained it to the head of Magnetic Fields and Particles. He stole the results and presented them as his own; you can see it in the 1989 Neptune issue of Science, but Moshe told me that he knew what he was doing (which he probably didn't). But that was my first encounter with the politics in science. I didn't care. I knew I had done it; I didn't care if anyone else knew. Moshe thought he would get some favor out of the guy-I don't know if he ever did, but supposedly the next year when I went back to work for him, the same guy that took our results, supposedly gave us a subcontract with PR to work on a video of Neptune's magnetic field as consultants. Oh, well, but what I was really proud of was how I predicted Neptune's magnetic moment. All the other scientists were Ph.D.'s so they were using Legendre polynomials and the full mathematical complexity of the traditional equations you use. I was a high school student, but like Moshe suspected, I could think. What I decided was, no way I'm going to be able to use these long equations, let's see if I can simplify things. So what I did was isolate the one situation of closest approach and look at that since the only data Voyager 2 is going to take is going to be along its flight trajectory. At closest approach, 1.2 planetary radii out, Voyager 2 was going to encounter just an offset tilted dipole which is the same as the Earth's magnetic field, so I realized I could just use the Earth's equation which is known and substitute that for Neptune's. I then normalized my coordinate system so that I would work with the least spatial variables and I began to derive the equation. After using Bode's Scaling Law (a geophysical scaling of geophysical parameters), I had a good estimation of Neptune's magnetic moement. Then one night I did it. In over 25 pages of mathematical derivation, I came up with an equation based on Earth's equation for Neptune's equatorial magnetic field. I knew it was right. I presented it to Moshe, turned it into code, and let him use the values for the computer model he had developed for planetary magnetic fields. We plugged it in and got the pole-on configuration. It was pretty dramatic.

Later when the data came in, I checked my predictions, and it was the most accurate of the nine scientists that had posted their predictions. It was only .0002 off. I was either one hell of a lucky kid, or I did something none of them had thought to do—do something too simple for most of them to think of...try to turn a complex general equation into a simple specific equation because the only thing that mattered was the data, and the data would only come along one trajectory anyway. After that, I realized I would really like working with physics and electromagnetic fields.



Memorandum

To: Earl Bakken

CC: Marko Rodin, Scott Nelson

From: Oscar K.H. Hsu

Date: 07/22/98

Re: Dossier on Oscar Hsu

Introduction

I think it is appropriate to introduce myself. After reading some of my papers you might be wondering, "Who is this person?"

My background as a scientific researcher began really in high school when I did my first scientific research at the City of Hope Cancer Institute. That was the summer that I discovered "The Body Electric" by Robert Becker. It opened a whole new world for me and it proved to be the single most influential book on my scientific career because it inspired me and motivated like few things had done before that time—the picture of the body as an electromagnetic constellation provoked in me images and a fascination that is more intuitive than rational, really. I believed in Becker's picture of a perineural DC regeneration system in the Schwann cells, and I set my high school research career to replicate his groundbreaking work.

There was another reason for such enthusiasm . . . my father had Parkinson's disease . . . the neurological degeneration of a population of neurons in the brainstem, and that leads to shaking and rigidity and a whole host of mental problems. It was and is an incurable disease by modern mainstream standards. But here in Becker's book, lay a fundamental belief that small levels of DC current could regenerate the nervous system. I latched onto it; I didn't believe that science had nothing to offer my father. Becker wasn't an outsider to science, he was a doctor, an orthopedist. His work looked good and he had published papers. I thought to myself that his work simply fell out of the prevailing paradigm of modern biology at the time—molecular biology. This idea of currents and fields was so foreign to biology, it seemed more like physics, and yet it wasn't entirely the province of physics either; it was more like a half-breed, sired by both but unwanted by both parents...so it lay in a kind of nebulous zone forgotten.

I wasn't a hero—I didn't charge into science because I wanted to save my father (despite what I sometimes tell myself)—science was the only thing I knew. My mother worked at JPL as a software and systems analyst; she had worked on Voyager 1 and 2, on the software to archive the images of Jupiter that came from the spacecraft on their flybys. I was pretty proud of that.

Dad was a chemical engineer at least before JPL laid him off for his disease—weeks before he could retire and draw a pension (one of the cruelest things I think JPL could have done to him, especially after he had given them so much). Dad invented the way solar cells are made for satellites



current was generated with a solar cell since a photocurrent is only indirect evidence of matterantimatter annihilation.

I have tried to express in layman's terms the significance and importance of such work which initially is already made a contribution conceptually and theoretically. The acceptance of Marko Rodin's work into the mainstream, which is the mission statement of the collaboration between Mr. Bakken and Rodin, depends upon the demonstration of scientific results that challenge mainstream physics and yet are expressible in those terms. My goal as a physicist is to see these experiments that I have proposed conducted and to translate their results and significance into the language of modern day physics so that they can be understood, appreciated, and verified by other physicists. That is the true mechanism if one wishes to preserve Mr. Rodin's work so that it will not be lost. Scientists have to first be able to understand his work, and second, see that it has startling consequences.

The translation of his work (which I have begun to undertake with the general relativistic description of the Toroid Map) for a scientific audience depends mostly on an intelligible translation of his concepts into familiar terms. Scientists will be motivated to understand his math once they see dramatic results that challenge their current notions.

I myself am anxious to see Ramsay's results on the weight asymmetries of two coils repeated with hard numerical data so it can be either verified or disproved. If his results are replicated accurately it will signify nothing less than an upturning of modern notions of physics and motivate both a better basic science understanding of the effect of form on gravity and spacetime as well as a desire to better comprehend Mr. Rodin's mathematics and theory.

My fundamental belief as a scientist is that science and experiments will drive the translation of Marko's work into not only useful and profitable products that can benefit mankind practically, but into a desired corpus of knowledge and ideas that others will want to understand. We have to engineer coils and devices that demonstrate the physical principles as observable phenomena. And our study of these simple model systems will inform the way in which his work (which is probably much like an iceberg) should be presented and translated to the public.

I hope that in this memorandum I've been able to convey at least my vision and some of Marko's clearly. If you have any questions, especially questions for Bill Ramsay regarding his results and his observations please feel free to contact him or me. Bill can be reached at:

Bill Ramsay, Discoveries, 563 ¼ Rd. #3, Grand Junction, CO 81504, (970) 241-5863.

I leave with just a little bit of Bill's tantalizing vision for this project. "One direction I feel is worth pursuing, for those with the capabilities, is to approach some versions of this coil as an antenna system... When just dozing off to sleep one night with this possibility playing though my mind, [Bill had the following lucid dream:] the model coil (being powerd by an antique RF generator I have) suddenly developed a minute, blindingly intense, white light point source at the epicenter—one not seemingly producing any heat. I decided it would be prudent to shut this down so I could ponder a bit before continuing. So I turned the generator down, slowly, but nothing happened. I disconnected it and still nothing. I then carefully lifted the coil off and the source didn't even flicker! Somewhat disturbing. So I tried a remaining possibility by turning the coil over and slowly re-powering it. The source slowly faded away. Whew!!! I later related these details to Marko to get his thoughts. His response was, "Well, Bill, it's your vision so it's up to you to decide what to do about it!"

If there's anything to dreams, then perhaps Bill's subconscious is relaying the hint of a possibility of amplifying the wormhole construct with radio waves such that the coil will initiate a self-sustaining reaction, producing matter and antimatter and annihilating them in the center, like a miniature sun.

light goes in. If a black hole and a white hole are connected, light can go in the black hole and out the white hole.

It is interesting that Bill and his wife dowsed a light going out and a light going in polarity to the coils. It is also interesting that the light going out side felt hot. If matter particles and photons (electrons, etc.) went into a black hole and out of the white hole, the impact of the electrons against one's palm would feel hot, like the heat generated by a light bulb when electrons collide with atoms as current is driven through a resistor. It is also interesting that the other side (the so-called "black hole" side) felt colder and a bit disrupting. Antimatter and antiphotons (called counterphotons) generated at the event horizon of a white hole spontaneously would go into the white hole and then come out of the black hole (theoretically by symmetry). Research done by my friend and colleague Tom Bearden who worked with Floyd Sweet definitively showed that the negative electricity (negative energy electrons or positrons) were cold. Moray showed this too in his radiant energy circuits. Antielectrons should thus feel cold. As the positrons collide with electrons in the palm, they annihilate thus disintegrating some of the atoms of the palm. This would feel "disrupting."

When Bill put a blue coil light-goint out side up on top of a glass of water he and his wife could see a vapor-like plume extending 10 cm (a tenth of a meter) above the water's surface. Notably, his wife said "it was like looking at electrons." If a white hole were to be facing up, the black hole would suck electrons into it and expel electrons out the white hole and as they accelerate they produce light (any accelerated charge does). That would account for the twinkling pure white, tiny, dancing points that they saw—they might have indeed been electrons.

This is all speculation, of course, but it is somewhat remarkable that the speculation coincides with an interpretation that is consistent with the theoretical physics of a black hole/white hole pair. No one of course has ever seen such a construct up close and personal; the domain of black holes and white holes has up until now been confined strictly to astrophysics and theoretical speculation. The idea of actually observing the dynamics of a miniature black and white hole pair is until now, unheard of.

The idea that one could engineer a miniature black hole/white hole for observation, testing, and manipulation is, admittedly, fantastic; however it is no more fantastic than the bizarre set of empirical observations seen by Bill Ramsay and his wife. Whether they are the result of imagination or are the result of Rodin's geometry is a matter of personal opinion. Ramsay has been doing good work for many years...Marko, as I understand, has always believed or stated that a correct version of his coil will create a black hole/white hole pair...I tend to have some faith in Bill's work because he seems like a reasonable person and a reasonable scientist. I don't think he would make up something like that just for attention.

If true, the implications are stunning, because they suggest we can engineer miniature black hole/white hole pairs for observation, study, and application just by using Marko's geometries—which may be what he has been advocating all along...

If, for example, these small black hole/white hole pairs are low intensity curvatures of the spacetime continuum as envisioned by general relativity, perhaps they can be tapped to generate energy for practical use. Since Bill could pass his hand freely through the center of the coil without problem, perhaps the coil causes the conversion of virtual-to-real particles and antiparticles at a small but measurable rate. These particle/antiparticle pairs would follow the geodesics defined by the curved spacetime metrics of the respective black and white holes into the singularity at the center. When they collide they form light. Since we have no evidence that these are full scale black or white holes and since matter does not seem to be disrupted at the center of the coils (the singularity coordinate), perhaps we might be able to introduce a silcon solar cell there.

never hang around very long they are called virtual particles. If you wanted to tap the ambient energy latent in this process of energy-to-matter creation, how would you do it?

There are lots of answers, but one of them is that you would have to concentrate the process, say focus particles and antiparticles on one point so you would have a high density of matter-antimatter conversion to energy, i.e. high energy gamma rays or photons. It might help also to transform virtual particles into antiparticles so that they would hang around long enough to be accelerated toward one another and collide in order to annihilate and change into light-energy. How would you transform them and how would you accelerate them towards one point?

It just so turns out, that at the edge of a black hole, at the event horizon, there is just enough energy to transform virtual particles popping out of the vacuum into real particles. A virtual particle/anti-particle pair has just enough time to part ways—the gravitational pull of the black hole pulls the particle, say an electron, into it. While the positron accelerates off into the distance. Astrophysically, this is a convenient way of preventing virtual particles from annihilating away from the single point you want to concentrate them at to tap the energy.

Interestingly enough, you still need a positron, though to collide with at the center of the black hole. Where do you get that? Back in the middle of this century, Einstein and a colleague of his, posited the existence of what came to be known later as a wormhole. They called the first conception of it, an Einstein-Rosen Bridge. The Einstein-Rosen Bridge was something like a tunnel connecting one universe to another. They theorized that it would be something like a bridge connecting parallel universes. Going through it you could travel from one universe to the other. Recently, Jodi Foster popularized the notion of an Einstein-Rosen Bridge in the movie "Contact" where her character travels through a wormhole to visit a distant alien civilization. And on any day of the week you can watch the latest installment of the "Star Trek" series "Deep Space 9" where the inhabitants of a space station protecting a wormhole engage in any of number of various escapades during the week.

To get a positron to fly towards the center of a black hole you would need the reverse of the process I just discussed above (by the way it is called the Hawking process after Steven Hawking). If a white hole were on the opposite side of a black hole, the reverse process would happen. A virtual particle pair would form just outside of the white hole's event horizon and if a positron and electron were formed spontaneously from the vacuum, the positron would fly off into the white hole and the electron would fly off into the distance.

If both the black hole and the white hole terminated in a singularity, a point, or at least a very small dense area, then you would have what would amount to a natural pair of particle accelerators, focusing their "beams" upon a very tiny, tiny area. Black holes of course exert an enormous gravitational force. The annihilation of matter and antimatter at the point singularity traps the energy there at that point since light cannot escape a black hole. It might escape out of the white hole end, but certainly funneling particles and antiparticles from opposite directions (the black hole and white hole) will concentrate the matter and antimatter-to-energy conversion process to a very high degree.

This is what I suspect Marko Rodin means by 'Point Energy Creation Physics"

In Aerodynamics: Point Energy Creation Physics © 1997 by Marko Rodin, Marko explains that the Toroid Map describes a black hole turning into a white hole. In fact as I believe, that description may be very good. Marko's Toroid Map seems to bear a good resemblance to the spacetime curavture induced in a single Euclidean space by the presence of a rotating black hole/white hole pair as described by general relativity (GR). That is the subject of my extract paper, "Rodin's Toroid Map

See my paper "Rodin's Toroid Map as an Einstein-Rosen Bridge" for details.

July 23, 1998

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wormhole with Marko's Toroid Map. The correspondence describes a rotating black hole/white hole pair. In my last conversation with Marko, he agreed.

The possibility of engineering the vaccum locally, even of engineering relativity directly through nothing but geometry is even more startling than the first suggestion by Ramsay that Rodin's geometries can alter weight itself. Hints of a new paradigm and field of study are evident and deserve serious consideration.

This would be the confirmation of a vorticeal action that Marko has long sought. I look forward to working with Bill Ramsay to investigate this phenomenon further.

Sincerely yours,

Oscar Hsu

Theoretical Physicst

TOROID AERODYNAMICS

OH/no

Budget #2

COST OF COMPONENTS

Materials cost is relatively trivial.

- A Fisher-Price™ "Rock-a-Stack" set of five plastic rings costs \$4 at Walmart™.
- 2) 211' of #24 enamel copper wire (1 lb. units from local store cost \$4/lb.)
- 3) Sharp knife used to cut rings in 1/2 and trim surface lettering costs ~ \$4.
- Foam used as rigid core of rings (central filler) estimated to cost ≈ \$4.
- Super-Glue[™] to glue ring-halves back together and affix wire = \$4 also.
- 6) White fiberglass tape from electrical motor rewinding shop costs ~ \$4.

TOTAL: 6 x \$4 = \$24 + 15% TAX (\$3.60) = \$27.60 for 2 Rodin-Ramsay coils.

OTHER COSTS

PHOTON COUNTER: Stanford Research Systems M is currently offering a Dual Channel Gated Photon Counter called the SR400. I have included a fax of the instrument as supporting documentation (appended at the end of this budget proposal). The price was not listed as it is unclear if it will be needed. First attempts to detect photons can involve simple convenient tests: undeveloped photographic film in a darkroom (like a Polaroid), or a silicon solar cell for example. When I worked at Harvard University as an X-ray crystallographer in Steven Harrison's laboratory, I used to use film to detect if heavy-metal doped isotopes of my protein crystals diffracted X-rays uniformly. If they did, developing film exposed to X-ray irradiation of the crystal led to recognizable diffraction patterns. Similarly, my hope is to use film as a detector for photons generated by matter-antimatter annihilation or equivalently, photon/antiphoton suction by the Rodin vortices. Hence, the cost of a photon counter, though a worthy device, will not be budgeted for unless failure with the film warrants it as a necessity (my plan is to go stepwise from least expensive, most convenient detectors and eliminate those systematically before considering more expensive instrumentation such as a photon counter). Since this is a preliminary analysis, such an approach makes sense.

CLOUD CHAMBER: This portion of the budget will have to be requested from Bill Ramsay. Bill has experience building cloud chambers, and if we decide one will be necessary, the budget for its cost can be provided by him. However, as I said, I would like to try film and a solar cell first as low-resolution approaches.

SOLAR CELL: Solar cells are pretty cheap, and their thresholds may not be adequate for this application, however it is suitable as an initial "quick-and-dirty" test of the viability of generating electricity from a Rodin-Ramsay coil with and without radio-frequency amplification from what I arbitarily designate as the Hawking-inverse Hawking process (the generation of a black hole/white hole pair suitable to accelerate matter and antimatter to generate high energy energy photons from their annihilation). Solar cells typically cost less than \$10.

FILM: Silver-emulsion film has the property of changing chemical state and color when exposed to light in the optical frequency range. It is unknown if photons generated by any matter/antimatter annihilation produced by the Rodin-Ramsay coil would in fact be in the optical range. However it would be relatively easy to test that using standard photographic film and/or PolaroidTM film. This film would be placed at the center of the Rodin-Ramsay coil and affixed in such a manner as to be stable with whatever appropriate supports. I estimate the cost of film to have a lower limit of \$10 and an upper limit of \$100.

PERSONNEL COSTS (for Bill Ramsay and myself): After asking him, Bill insists that he would wind a new set of coils for free (incidentally, Marko cannot find the original coils); however in the interests of science it is

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Section II

Part I

Theory

THE TOROID MAP AS AN EINSTEIN-ROSEN BRIDGE

Oscar K.H. Hsu 465 Noren Street. La Canada, CA 91011 USA

Marko Rodin Toroid Aerodynamics Lihue, Hawaii USA

by Oscar Hsu

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ABSTRACT

This is a concept paper that proposes a general relativity (GR) model of the Toroid Map of Rodin. Understood from the standpoint of GR, the author proposes a consideration of the geometry of the Toroid Map as a representation of the spacetime curvature induced by an Einstein-Rosen Bridge (a black-hole/white-hole pair). It is proposed that energy can be generated by the singularity at the center of such a construct through the annihilation of virtual matter and antimatter created at the two event horizons (Point Energy Creation Physics).

1.1 INTRODUCTION

Casual observation of Rodin's Toroid Map reminds this author of the spacetime geometry described by a wormhole (see Fig. 1 below), a variation of an Einstein-Rosen bridge, with the additional caveat that Rodin's map addresses a rotating wormhole, not unlike a black-hole/white-hole pair describable by a Kerr-Newman solution (rotating, charged singularity). 23

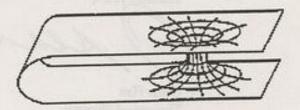


Fig. 1. A wormhole connecting two regions in one Euclidean space.

The expanding and contracting tiles of Rodin's Toroid Map resemble the expanding and contracting spacetime metric used in Einstein's theory of General Relativity (see "Engineering General Relativity on the Benchtop" for basic background on GR, including a discussion of metrics and spacetime curvature).

COST OF COMPONENTS

Materials cost is relatively trivial.

- A Fisher-Price™ "Rock-a-Stack" set of five plastic rings costs \$4 at Walmart™.
- 2) 211' of #24 enamel copper wire (1 lb. units from local store cost \$4/lb.)
- 3) Sharp knife used to cut rings in 1/2 and trim surface lettering costs ~ \$4.
- Foam used as rigid core of rings (central filler) estimated to cost = \$4.
- Super-Glue™ to glue ring-halves back together and affix wire ≈ \$4 also.
- White fiberglass tape from electrical motor rewinding shop costs ~ \$4.

TOTAL: 6 x \$4 = \$24 + 15% TAX (\$3.60) = \$27.60 for 2 Rodin-Ramsay coils.

OTHER COSTS

ELECTRONIC DIGITAL SCALE: Precision Weighing BalancesTM is currently offering a special offer on their benchtop digital electronic scale, the Ohaus LS2000 (as of 6/29/98, about 1 mo. ago).³ I have included a xerox copy of the offer as supporting documentation (appended at the end of this budget proposal). The price at that time was only \$82.99 for the Ohaus LS2000 (2000g x 1 g resolution). I did not choose the Tanita 1140 because it appears the scale has a plastic bowl on its surface and this would interfere with the coils laying flat on the scale (see picture). Thus the total materials cost for 2 Rodin-Ramsay coils and one electronic digital scale is \$27.60 (coils) + \$82.99 = \$110.59 ~ \$111.

TOTAL MATERIALS COST: \$ 111.

PERSONNEL COSTS (for Bill Ramsay and myself): After asking him, Bill insists that he would wind a new set of coils for free (incidentally, Marko cannot find the old coils used for the weight measurements; however in the interests of science it is still a good idea to repeat the experiments with a new set of coils). If Marko, finds the old coils then the cost of repeating the experiment with a digital scale is only \$83. Thus, as you can see the materials cost for this project is relatively trivial.

PERSONNEL COSTS for myself include: rent (\$438/mo.), utilities (gas, electricity, and water: \$50/mo.), and salary. After meeting Marko, I took a leave of absence from school in order to do technical writing for him, specifically on the weight asymmetries reported by Ramsay. He has used my paper to get the support of Chick Lewis at Soligen to agree to doing the rapid prototyping for a Rodin coil according to Marko's design (see enclosed letter from Chick Lewis as supporting documentation). I spent a total of 450 hours (45 ten-hour days as Marko can attest to) in the first two months from April to May to work on and generate that paper (a month and a half). I have worked for Marko full-time for the past four months as a technical writer/content expert and in-house scientist/theoretical physicist. Those costs have included trips to the Caltech library involving gasoline for the car (\$5/wk.), xeroxing (\$5/wk.), and document preparation at Kinko's M (\$5). Hence for six weeks the gas and xeroxing of books and journal articles amounts to 6 wks. X \$10/wk. = \$60. When I worked for NASA at JPL on the Galileo Magnetic Fields and Particles Team I was paid a salary of \$20/hr. Hence for the work I have done on the paper I am asking for 450 hrs. x \$20/hr. = \$9,000. Food cost is roughly \$50/wk., \$200/mo. and hence \$300 total for the 6 wks. I spent writing & researching the paper. 1.5 months of apartment rent is roughly \$900 (at that time rent was \$425/mo.; it has now been increased to \$438). Utilities for that period is \$75 (1.5 mo. x \$50/mo. for gas-heat, electricity, and water). Hence the total personal costs I incurred over the 6-wk. period that I spent researching and writing my paper add up to \$ 10,340.

³ See "Specials of the week" at http://www.balances.com/special.htm (copy enclosed).

Sincerely yours,

Oscar K.H. Hsu

Theoretical Physicst/Scientist

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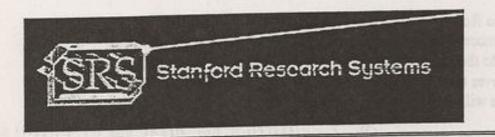
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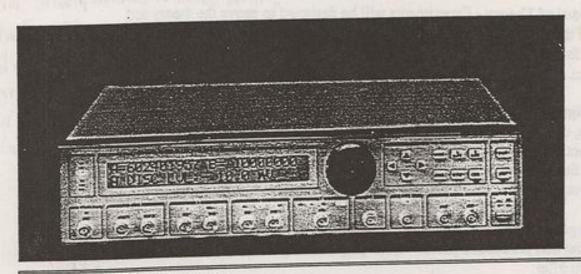
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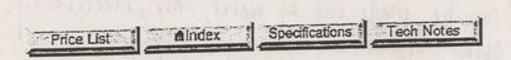
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SR400 Dual Channel Gated Photon Counter



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The SR400 Dual Channel Gated Photon Counter offers a convenient, integrated approach to photon counting that avoids the complexity and expense of older counting systems. No longer is it necessary to mix and match amplifiers, discriminators, gate generators, and counters to get your photon counting experiment up and running. The SR400 combines all these modules into a single, photon counting experiment up and running. Complex measurement tasks such as background

We have always been taught that nothing can exceed the speed of light. Evidence exists, however, to the effect that this may not always be the case. Here's a description of several experiments that seem to disprove the theory of relativity, and an explanation of what may—or may not—be taking place.

refrimentation with transmission lines and, in discussing my work with other cientists, if I casually happen to ention—which is sort of fun to do—that m interested in electrical impulses that ropagate faster than the speed of light, m met with a variety of reactions.

The most usual is derision—ranging om skepticism or incredulity to outright jection. On the other hand, there are a w people who say that the phenomenon all old hat, and well known.

The word "well" might be disputed, ut it is true that in the first decade of this entury it was already known that electric raves do propagate in wires at velocities a excess of c (the velocity of light in free pace, equal to 2.998 × 10° cm/sec), hat fact seems to have been obscured by ur acceptance of Einstein's theories of enturity so that very few people—even enior graduate electrical engineers—are ware of it. We are much more familiar with idea that the velocity of light has c as supper limit and that the velocities of oth matter and energy are similarly limited; and that no intelligible information

Since there is some dispute as to whether the speed-limit postulate of the elativity theories originated with Poinare or Einstein, we'll avoid taking sides and simply refer to it as the c-hypothesis. It is recognized by relativism (the science of relativity) that the so-called wave elocity of electricity—that is to say, the relocity at which the crest of a sinusoidal, ontinuously emitted, electrical signal moves through a conductor—can sometimes exceed the velocity of light. That forms an exception to the c-hypothsis.

HÁROLD W. MILNES, Ph.D

Properties of electricity

Maxwell's equations seem to describe the properties of electricity best. They predate the theories of relativity by 25 years, and were not the only set of equations proposed in the late nineteenth century to explain the behavior of electricity. But they were the ones supported by the influential Cambridge school, which was predominant in science at the time.

Though Maxwell's equations are very good where there is a continuous currentflow, they are known to be subject to certain errors, particularly in describing phenomena involving moving isolated charges. It is precisely when treating the behavior of those discrete charges that it is best to modify the equations to agree with relativity as we currently understand it.

When derived directly from Maxwell's

unmodified equations, the velocity, v, of sinusoidal waves in transmission lines is given by the following formula: $v = 1/\sqrt{LC}$. The values of L and C are not the total inductance and capacitance of the line, but represent its specific inductance and capacitance—that is to say, its inherent inductance and capacitance determined on a per-centimeter basis—in

enries and farads, respectively.

If L and C were both in the micro-micro 10^{-12}) range, then v would be greater han c, and a condition would arise where either the unmodified Maxwell equations would fail, or the c-hypothesis would no onger apply, for the two are mutually contradictory. It's not hard to find a conductor whose inherent capacitance is in the range of micro-micro farads (picofarats inherent inductance is in the range of micro-micro henries (picohenries) per centimeter, and then run a series of experiments to see which theory holds water. That's what I've been doing.

Basis for experiments

The experiments described below show that there are a number of ways to get the results needed to reach a conclusion. They can be performed by anyone with a little knowledge of electronics, and do not require a large cash outlay-all you need are an oscilloscope and a squarewave generator. You will be able to see for yourself that electric pulses do, indeed, propagate in conductors at velocities faster than c, but you are also warned that the results do not establish the validity of the equation $v = 1/\sqrt{LC}$ (though it is more likely to be true than would be the c-hypothesis, if it were applied to the speed of propagation of electrical wavetrains). In many cases I've observed the speed of propagation of squarewave trains to be greater than 100c-onehundred times the speed of light. In most instances the speeds have been beyond the capabilities of my equipment to meas-

Requirements

In experiments relating to the velocity of electrical signals, it is essential to use squarewave pulses or trains of pulses. Doing so makes it easy to determine the starting and ending points of a particular signal, and to measure the time delay-if any-introduced. Also, a transmission line can distort the signal it carries. It is possible, however, to avoid such difficulties by using a line long enough so that the delay predicted by the c-hypothesis would exceed the time period of a single cycle. On the face of the oscilloscope, the trace of the output signal from the line would then be displaced at least one full wavelength with respect to the trace of the input signal. For a 1-MHz pulse, that means using a wire at least 3 × 104 cm long, which would give a delay (under the c-hypothesis) of at least one \mus; I use lines about 400 meters (1200 feet) long, which allows for pulses somewhat longer than a microsecond. Since too long a line can distort a waveform, the shorter a line you use, the better, just as long as you can get measurable results.

If precise measurements are to be made (beyond just determining that something is taking place), it is necessary to define

exactly where waves begin and end. The falling and rising edges of squarewave pulses-particularly the former-make good reference-points that can be easily traced through progressive stages of deformation induced by line-distortion. That is illustrated in Fig. 1-b, where a and β' are images of the falling and rising edges α and β of the original wave, shown in Fig 1-a. Thus, a squarewave pulse is considered from one successive falling (or rising) point to the next similar point, and waves that have been generated from it as the waveform that exists between the images of those points. The marking points are nearly always accompanied in the output waveform by sharp overshoot spikes immediately following them, as shown.

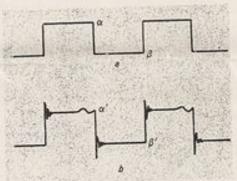


FIG. 1—ORIGINAL SQUAREWAVE (a) and its image (b). Pulses are measured from one rising (or falling) edge to the next.

The hookup for studying the delay is shown in Fig. 2. Resistor R is used to provide a signal at B. A dual-trace oscilloscope is not an absolute necessity, since the input and output points can be monitored separately by transferring a probe from one to the other. If the delay were 1½ µs, as a line 400 meters long would imply under the c-hypothsis, and the oscilloscope's maximum sweep-fate was .1 µs/cm, then you would obtain an easily discernable displacement of 1 mm on the screen.

The delay circuit should be constructed so that the values of L and C are quite small. The procedure used in the first

experiment shows one way to accomputhat. A very fine wire is selected, so as to keep the surface area, and, hence the inherent capacitance, small. Number 40 copper wire is the finest generally available, but it is so fragile that I prefer use No. 35 steel sound-recording wire (available from Fidelitone, 3001 Malmo Dr., Arlington Heights, IL 60005) which is quite satisfactory, despite its high resistance of one-ohm-per-cm.

As shown in Fig. 3-a, a hundred notches were cut, one cm apart, in two insulating boards, and the boards were separated from one another by 99 cm. The wire was strung tightly back and forth, forming a series of 100 parallel lines, each one meter long (when the turns at the end are taken into account). The total length was exactly 100 meters.

The value of L was kept quite small because the wires are noninductively wound, and the direction of current flow in any one line the reverse of that in the two adjacent lines.

A second, similar, plane was constructed and placed beneath the first, but with its wires running perpendicular to the first's. An air gap of one cm separated the two planes. Then a third and fourth plane were stacked beneath those, with the direction of the wires alternating. The planes were connected to one another, forming a continuous transmission line 400 meters long.

The capacitive effect of the planes is illustrated in Fig. 3-c and depends on the proximity of the wire surfaces to one another. I am aware of no practical way to measure inherent capacitance, but a crude upper estimate can be made by noting that the circumference of No. 35 wire is .025 cm, so that the total exposed surface of the 400-meter line is 1000 square cm. Two plates, each of area 500 square cm, separated by 1 cm of air dielectric, have a capacitance of 4.425 × 10⁻¹¹ farads; the total inherent capacitance must be very much less than that. On a per-centimeter basis it is less than 1.106×10^{-15} farads-well below the picofarad range mentioned earlier. Obviously, the capaci-

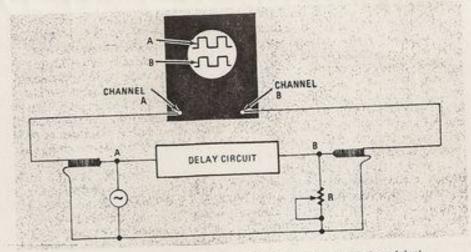
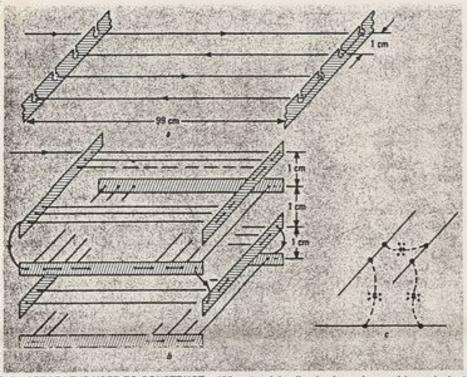
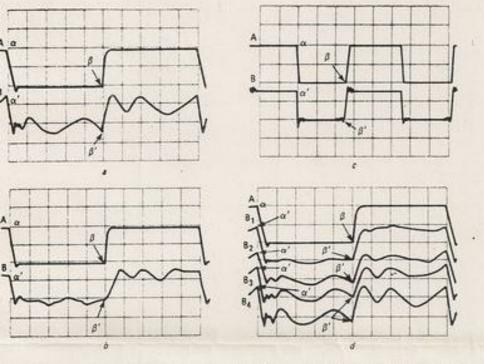


FIG. 2—DEVICE USED BY THE AUTHOR to compare a delayed signal with the original.



 3.—APPARATUS USED TO CONSTRUCT a 400-meter delay line is shown in a and b; equivalent pacitance is shown in c.



 4—ORIGINAL AND IMAGED signals for three different frequencies: 1 MHz (a), 0.8340 MHz (b), and 3579545 MHz (c). Fig. 4-c shows images probed at 100, 200, 300, and 400-meter points.

the wires and the planes by more than the wires and the planes by more than the cm, but it is unnecessary to do so. When a squarewave signal is fed to one do for the device, the transit time to the the rend is so brief that it is undetectable the highest sweep-rate of a 15-MHz cilloscope. According to the c-pothesis, the output waveform should displaced by at least 13 cm with respect the input waveform, but the α' and β' ints match the α and β points to within the precision that the instrument permits. Typical input and output waveforms the shown in Figs. 4-a-4-d for three dif-

ferent frequencies. In case you feel that the precise alignment of the curves is somehow related to the length of the line, in Fig. 4-d the traces are shown at 0, 100, 200, 300, and 400 meters from the input point; the deformation is continuous in between. The value of R was set at 5000 ohms and the total resistance of the device was 40,000 ohms.

A second experiment

The apparatus just described is the least cumbersome for laboratory use that I have developed so far. In case you think that the observed effect is dependent on the design of the wire array, I'll describe a second experiment I performed. In that, I ran 480 meters (1600 feet) of No. 35 steel wire in a giant loop once around the city block where I live. The specific inductance of the loop can be considered so small as to be negligible, and the inherent capacitance even less than that in the first experiment.

The results were essentially the same, and the waveforms are shown in Figs. 5-a-5-c for three different frequencies. In that experiment, the value of R was 3500 ohms, and the resistance of the line 48,000 ohms. The displacement of the

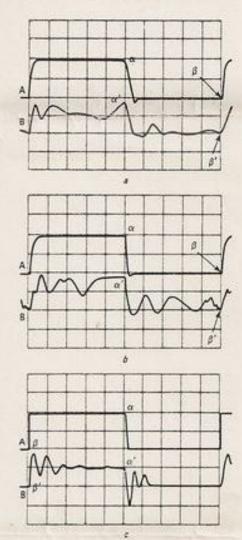


FIG. 5—SIGNALS, AND IMAGES, returned using 480-meter continuous loop. Frequencies used are the same as those indicated for Fig. 4.

signals should have been at least 16 cm if the waves propagated at velocity c through the line. There was considerable difficulty in obtaining clean signals because of noise interference; the line could not be shielded or terminated without altering its essential L and C characteristics. Furthermore, shielded cables are well-known delay lines and their cores are frequently coiled on themselves to enhance the delay effect, depending on the design of various manufacturers. The line picked up so much random noise from broadcast signals that even the input squarewave was fuzzily indistinct on the

oscilloscope. To obtain the clean signals shown, I found that it was necessary to perform the experiment between 3 AM and 4 AM on a Sunday morning when the local TV stations and airport beacon were

It was impossible, of course, to lead the output probe along the loop as had been done in the previous experiment. However, the fact that the input and output waves corresponded may be deduced by using some elementary arithmetic and from the fact that no significant displacement occurred at several different, independent, frequencies.

Suppose that, under the c-hypothesis, the transit time of the line were T = length/c, where length is the fixed length of the line. In that time n = Tf waves would have entered the line, where f is equal to the signal-frequency. For an output wave to appear without displacement vion respect to the input wave, a frequency would have to be chosen that would make n a whole number.

Let us assume, for instance, that that was the case for one of the frequencies, say f1. It could not occur at a different frequency, f_2 , as well, unless $n_2 = Tf_2$ were also an integer. Now, $T = n_1/f_1 =$ n_2/f_2 , so $f_1/f_2 = n_1/n_2$. The number of waves, in whole or in part, in a 480-meter line would be either one or two, which means that f_1/f_2 would be equal to 1, 2, or $\frac{1}{2}$; that is, either $f_1 = f_2$, $f_1 = 2f_2$, or $f_1 = \frac{1}{2}$ $\frac{1}{2}f_2$. The test frequencies used were: $f_1 =$ 1 MHz, $f_2 = 0.8340$ MHz, and $f_3 =$ 0.3579545 MHz; none of them bears an integer relationship to the others, yet, as the corresponding graphs show, none of them produced a measurable displacement of the waves.

I regard this experiment as the most critical one I have so far performed. It can lead to only one conclusion: An electrical signal in a conductor, under suitable conditions of very low L and C values, can be made to pass through that conductor at a velocity considerably greater than that of light.

Delay lines

The one-us delay lines used in color-TV receivers are probably familiar to most Radio-Electronics readers. One is shown in Fig. 6-a, along with its schematic representation (Fig. 6-b). Of some 15 of the devices I've studied, no two have had precisely the same characteristics. Typically, though, they consist of a coil of fine wire, about 27 meters (80 feet) long, wound as a single layer on a form one cm (0.4-inch) in diameter. Beneath the windings lies a strip of foil covering about a third of the tube. When that strip is connected to ground, the inherent capacitance of the line is increased to the point that, when combined with the small inductance of the winding, a one-μs delay of the signal passed through the line results. If the strip is simply left floatingunconnected to ground-no measurable

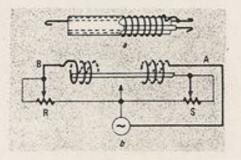


FIG. 6-COLOR-TV delay line (a) and equivalent circuit (b).

delay is produced, even if 15 of the units, involving some 405 meters (1300 feet) of wire, are connected in series.

To obtain the results shown in Fig. 7, only two delay lines were used, for a delay of two µs. Curve A shows the input

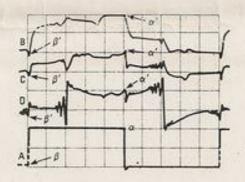


FIG. 7—ORIGINAL SIGNAL and images returned using two TV delay-lines in series. See text for explanation of curves.

signal; curve D the output signal-with the foil grounded to produce a delay. To get curve B, the foil was left floating and it can be seen that the a' and B' points match the α and β points. If a onemegohm potentiometer is inserted at point "S" (in Fig. 6-b), between the foil and ground, and its setting varied from one megohm to zero, a-continuous gradation of effects can be followed.

The original signal becomes more and more deformed; some of the peaks predominate, as can be seen in curve C, and it is hard to decide where the original wave is, and where the delayed wave is. The α' and β' points identifying the original wave remain evident for a long time but, in due course, they are almost obliterated, although they always remain vestigial, even in curve D. It really becomes a matter of subjective opinion whether the new wave is merely some deformation of the old, or whether a delay of the input signal has taken place.

Facts vs. literature

The statements made in the literature relating to the velocity of electric signals in conductors are contradictory, misleading, and seem to ignore experimental evidence. How is the $v = 1/\sqrt{LC}$ formula reconciled with the c-hypothesis? W.C. Johnson, in Transmission Lines and Networks says:

"...the product LC is independent of the size and separation of the conductors and depends only on the dielectric constant and permeability of the insulating medium. The numerical value 1//LC for air-insulated conductors is approximately 3 × 108 meters/second, which checks with experimental determinations of the velocity of light in free space."

What is free space? It is a mathematical fiction, created to suit the results of Max-

well's equations.

At certain times, its properties conveniently simulate those of conducting media; at others, those of empty and interstellar space. If the first statement of the above equation were true, then coaxial cable would not be a more effective delay line than any other wire similarly insulated; there would be no point in coiling its core to produce a more effective delay. And, if the velocity of electrical pulses were unaffected by the distance separating the conductors, not only would the TV delay-device not work, but other delay devices that depend on an overlay of one substrate of a printedcircuit board upon another would also be ineffective. Inherent capacitance is distinctly dependent on wire size and surface area. The assurance that all is well and checks with the velocity of light, c, is just that—an assurance, unfounded in fact.

The very analysis that persuades us that ν equals 1//LC—a result that may be nearly correct—has other consequences that are rather surprising. They are: "the velocity of propagation is independent of and "a pulse can be profrequency," pagated down a line without distortion." In real life, the latter is obviously false, as my graphs illustrate. Nor is the former true, for we can find current texts that state "...in matter, velocity depends on frequency." Experimental evidence agrees, but to what extent, my limited equipment cannot measure accurately.

The analyses of both Brillouin and Sommerfeld claim to explain why Maxwellian and relativistic theories both support the c-hypothesis, and the phenomenon being discussed. They depend entirely on the effects of dispersion (the dependency of the velocity of electromagnetic waves on frequency) and, if dispersion is not assumed, they are invalid.



"Radio is just like TV—only the picture tube blew.

Coil Winding Data

Turns Per Inch

Number of Turns per Linear Inch

BA.S)

Engine

S.S.C.

and .

D.C.C

D.S.C.

S.C.C.

i

3.8 4.2 5.2

5.0

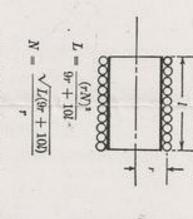
(WG)

Coil Winding Formulas

ing r-f coils are accurate to within approx.
1% for nearly all small air-core coils, where The following approximations for wind

N = total number of turns,L = self inductance in microhenrys, b = depth of coil in inches. r = mean radius in inches, l = length of coil in inches,

Single-Layer Wound Coils



10.7 12.0 13.5 16.8

10.3 11.5 12.8 14.2

9.8 10.9 12.0 13.8

9.6

5.9 6.5 7.4 9.3

5.6 6.2 7.1 7.8 8.9

e-Laver S	$L = \frac{1}{6r}$		****	
nale-Laver Spiral Wound Coils	0.8(rN)* + 9l + 10b	161	****	1
Coile		1		

88888

58.0 64.9 72.7 81.6 90.5

50.2 55.0 66.4 71.5

41.8 45.0 51.8 55.5

33.1 37.0 41.3 46.3 51.7

32.7 36.5 40.6 45.3

29.8 41.5 45.6

30.0

fs

Multi-Layer Wound Coils

35.6

21.2 23.6 26.4 29.4

18.9 21.2 23.6 26.4 29.4

17.9 19.9 22.0 24.4 27.0

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*	6691. 8310. 10480. 13210.	2607. 3287. 4145. 5227.	1031. 1300. 1639. 2067.	407.8 514.2 648.4 817.7	161.3 208.4 256.5 -	63.80 80.44 101.4 127.9	25.23 31.82 40.12 50.59	9.980 12.58 15.87 20.01	3.947 4.977 6.276 7.914	1.561 1.968 - 2.482 3.130	Feet per Lb.	WEIGHT LENGTH
10 10 10 10 10 10 10 10 10 10 10 10 10 1	206.9 260.9 329.0 414.8	100.2 100.2 100.1	32.37 40.81 51.47 64.90	12.80 16.14 20.36 25.67	6.385 8.051 10.15	2,003 2,525 3,184 4,016	.7921 .5989 1.588	.3133 .3951 .4982 .6282	.1239 .1563 .1970 .2485	.04901 .06180 .07793 .09827	Ohms per M'	RESIS
	4.833 3.833 3.040 2.411	12.22 9.691 7.685 6.095	30.90 24.50 19.43 15.41	78.11 61.95 49.13 38.96	197.5 156.5 124.2 98.5	499.3 396.0 314.0 249.0	1262 1001. 794. 629.6	3192 2531. 2007. 1592.	8070. 6400. 5075. 4025.	20400. 16180. 12830. 10180.	Feet per Ohm	RESISTANCE AT 68° F
100000000000000000000000000000000000000	1364, 2168, 3448, 5482	213.3 339.2 539.3 857.6	31.07 51.08 84.37	8.201 13.20 20.90	.8167 1.299 2.065 3.283	.1278 .2022 .3230 .5136	.01999 .03178 .05053 .08035	.003127 .004972 .007905 .01257	.0004891 .0007778 .001237 .001966	.00007652 .0001217 .0001535 .0003076	Ohms per Lb.	8 F
100	***	222	***	2222	2555	***	5550	80 N G G		0000	(AWG)	Gauge

Table of Standard Annealed Bare Copper Wire Using American Wire Gauge (B&S)

LLIED'S

ADIO

HANDBOOK

Dr. Earl Bakken c/o Marko Rodin P.O. Box 1690 Koloa HI 96756

8 July 1998

Dear Dr. Bakken:

I am very eager to write a book explaining Marko Rodin's discoveries to a popular audience. Such a book has, I believe, the potential to redefine our paradigms of reality on many profound and practical levels. Towards this end I have interviewed a diverse group of researchers and scientists, read literally stacks of books, prepared almost a hundred pages of notes, and otherwise devoted myself to this project for a period of years. During the same time I have had articles and essays on other topics published around the world. But this book requires completion more than any other project I have worked on, and it has been spoken of long enough; it is my fervent hope that now it can finally be written.

For me to devote the time this book requires, I will have to give up working full time on my business. To make sure I have time for all the research which such a narration would demand, I intend to allocate a full year for the completion of the manuscript. I have determined the resources I would need to produce a finished product by July, 1999, without reneging on my financial obligations. These are:

\$20,000 for the year during which I would be writing (about \$416 per week); \$2,000 to apply towards a portable computer for writing and Internet research (right now I am typing on a friend's computer, in the middle of the night while he is asleep); and

\$1,500 for phone calls and travel for phone interviews (this is to include a trip to Hawaii to meet with the project's members in person).

The total of these figures is \$23,500.

I would happy to discuss any aspect of this letter in more detail. As for the reason behind this letter, the urgency of my desire to work on this book is proportional to the significance I perceive its subject to have.

Thank you for your kind attention,

Aaron Emmel (505) 332 7029

531 Wagon Train SE

Albuquerque NM 87123

