Further Lambdoma Writing & Research

by Barbara Hero

International Harmony Based Upon a Music of Planetary Grid Systems
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New Musical Instrument May Reveal Key to the Universe
by Dan Shaw

Q & A 1

Q & A 2

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This paper will propose a method of correlating Earth Grid systems with specific musical notes, by a process of translating length to frequencies which can then be translated to musical notes.

A method of octave expansion and octave reduction was used to determine the specific frequency of a note.

When this theory is applied to the relationships of countries to sounds, a way of increasing harmony between countries can be suggested by knowing a key note of the distance between them.

A correspondence with Pythagorean Lambdoma of seven rays is suggested.

In September of 1983 I received a letter from Governors State University in Illinois requesting submission of information or research on a project called THE PLANETARY GRID SYSTEM. I wrote back a note saying that perhaps I could help by identifying the musical interval of the modular grid system if there is a module that has been determined in length. Then, a year later in December, 1984, Bethe Hagens and William Becker sent a copy of the magazine "Pursuit" (1) which featured their research. And in this article the distances in miles of the grid system they devised was given, so that I could get to work to determine certain musical relationships. I sent a letter detailing these relationships. After receiving my letter Bethe Hagens replied:

"Thank you so much for your letter. I wanted you to know that we had received it. I am kind of stunned by what you have found in the grid - and your political interpretations. It's one of the most fascinating responses we've ever received. I don't know that I told you, but I am a professional violinist when I am

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not being an anthropologist. Your work in harmonics begins to get at something I have felt intuitively must exist but had no way to express.

"...I have not had the time to sit with your letter and really absorb it. I will write again once I have something intelligent to say. Again, thanks so much for writing."

The Becker-Hagens report presented a theory of the growing structure of the earth, from the tetrahedron, octahedron, cube, icosahedron, and dodecahedron. These are the Platonic solids attributed to Pythagoras (500 B.C.). The dodecahedron and icosahedron together, Becker and Hagens found to be the grid system of our present age. When the line arrays of each of these solids is overlaid on a sphere, a grid emerges which they contend is a pattern the ancient peoples used for becoming one with the earth.(2)

Briefly, factors to consider when calculating the harmonic implications between countries, cities, or villages include the following:

- What is the great circle distance in miles between two points on the grid system?
- What are the major apex points?
- Is the assumption that Giza is the major point valid, or has the energy changed since the building of the Great Pyramid?
- Are significant places in history nodes of the grid system?
- Are fault lines energy lines?
- Are mountain ranges energy lines?
- What is the difference between the fault lines and the mountain range lines in terms of energy?
- Could certain distances portend problem areas in terms of harmonies?

The Becker-Hagens report mentioned the "Twelve Devils' Graveyards Around the World" (Saga Magazine, 1972) where magnetic and energy aberrations were located. These are found zig-zagging the equator at 30 degrees above and 30 degrees below the equator.

Using an "Atlas" software computer program, Robert Foulkrod found the distance in miles to be 4264 miles between adjacent "Graveyards." The corresponding musical frequency based on the speed of sound in air is 0.0000502 cps. By octave expansion to the middle "C" octave (multiplying by 2 to the "n" number of times), this translates to a musical note of "A". This particular distance or musical note might be an indication of disharmony between countries, if, indeed, distance is a factor.

The Becker-Hagens report sets the kite shaped grid dimensions as 1400 miles (short end of the kite), 2200 miles (the outside kite length), and 2600 miles (the brace down the middle of the kite). The musical notes are "E flat", "A flat", and "F", respectively. The latter note represents the distance between Gomel in the Soviet Union and Sebha in Libya. Therefore the musical sound of "F" at 345 cps might be accentuated for harmony between these two countries.

The Becker-Hagens report mentioned the theory by Sinkiewitz who claimed that the present energy grid system is out of alignment with the ancient
grid system, and that New Age Spiritual communities around the globe are rediscovering the new grid and building sacred sites to activate them.

The Aleutian Islands have been predicted to be the new North Pole. See Figures 1, 2, 3, 4, & 5. [not included here but if anyone is exceptionally interested, let me know and I will scan, UUENCODE and post them.] What is the distance involved when a diamond of a 70 degree apex is overlaid on the new North Pole, and the legs of the diamond terminate at the Equator? This is the shape which some have found intuitively very emotionally responsive as if from a long forgotten past.

A "key note" of a country could be determined by means of a Lambdoma diagram (a Pythagorean model). See Figure 6, References 3 through 8. The apex of the Lambdoma diagram is divided equally as the diagonal down the center of the x and y axis. The diagonal has a ratio of 1:1, so that whatever the distance is along the diagonal of the grid would be its "key note". For example Gomel in the Becker-Hagens grid has seven rays radiating from the apex point, and the diagonal which represents the "key note" extends from Gomel to El Eglab, 2600 miles, an "F" musically. From Cairo to London is 2183 miles, a "G#".

Each of the rays of the grid would exhibit a unique energy, and much work has to be done to determine the quality of these differing energies. See Figures 7 & 8. In the case of the earth the circumference of the earth should be taken into account as a reference distance and frequency, the circumference is 24,860 miles. This is equivalent to a "D" musically (in air).

In conclusion, if the earth is in transition in terms of developing into a new phase of grid lines, this factor might indicate a shift of energy or frequency at different places on the earth. See Figure 9. The grid patterns would then take on different distances. See Figure 10. We might ask how can we as humans help the earth in this transitory phase?

First, recognizing that harmonies between cities or countries is based upon attunement to each other's energy patterns. Most of all let us attune ourselves to the earth's energies, recognizing the oneness of all things in our material universe, and learning the importance of sound as a manifestation of different realities.

Any grid system has to have distance as one of the factors, since wavelength is inherent in all sound vibrations, as the inversion of frequency. Even though we cannot hear the specific frequency of a grid line, the interval quality is present though inaudible. So let's make them audible.
Two “diamonds” of the EarthStar Globe. Note the similarity to Barbara’s art, above.

References
8) B.Hero,"The Mathematical Laws of Sound (Relationship of Sound to Gravity), "EnergyUnlimited #12, Box 288, Los Lunas, New Mexico 80731
Since the beginning of time, philosophers have sought the key to unlock the mysteries of the universe. Some modern-day researchers believe they have found the key, and that key is a musical key. Every sound that we hear results from movement. Every thing in existence, even every molecule vibrates. While not every vibration can be heard by the human ear, every vibration can be measured. Vibration, or frequency, is measured in cycles per second (cps), also called Hertz (Hz). For example, consider a violin string, tuned to the musical note "A" in our familiar Western musical scale. The string vibrates 440 times per second. Shorten the string slightly, and it will vibrate faster, and at 466 times per second, you will hear the higher note, "B flat". This basic musical theory may be familiar to musicians in the West, but there are many other musical scales used around the world. The "C, D, E, F, G, A, B, C", or "do, re, mi, fa, so, la, si, do" scale known as the "equal-tempered" or solfeggio scale that we use today was invented by Bach in the 1600's for the convenience of symphony orchestras. This somewhat arbitrary musical system recognizes some half-notes, called flats and sharps, which are played with the black keys on a piano keyboard. But there are an infinite number of intermediate sounds ("in the cracks between the piano keys"), sometimes called "micro-tones". You don't have to be an expert in music or mathematics to recognize that the solfeggio system limits the possibilities for music, which actually has infinite possibilities.

Would you like to hear all the harmonic microtones, instead of just some of the harmonic tones? You would need a new musical instrument. That new musical instrument has already been invented by mathematician Barbara Hero. It is a synthesizer called the Harmonic Keyboard. The keyboard works with a computer, so that you can easily program in, and hear, any sound frequency as a key note. That key note is called the fundamental. The Harmonic Keyboard is shaped like a diamond-shaped checker board. Anyone -- even non-musicians -- can play the Harmonic Keyboard, because every key is in tune with every other key. If the key note of is 440 cycles per second is programmed in, then the row of keys to the upper right increase by doubling (octaves) to 880, 1760, etc. And the row of keys to the upper left decrease by halving, 220, 110, etc. (See the illustration.) The theory, of course, is more complex but that is the basic idea. The other keys play whole-number ratios, such as 3:2 (1320:880) (a "harmonic"). And 2:3 (880:1320) (a "subharmonic"). Each key produces two different notes simultaneously, one through each stereo speaker.

While the theory isn't easy to explain in words, it becomes instantly understandable when one plays or listens to the entrancing sounds coming from the keyboard, which Barbara calls the Pythagorean Lambdoma Harmonic Keyboard (PLHK). Mathematicians may want to learn more about the theory, which is based on Pythagoras' numeric table (known as the Lambdoma Pythagorean Chi X, or Tetractys). The Lambdoma gets its name because the numeric table was originally shaped something like the Greek capital letter lambda λ.
Scientists agree that everything has a vibratory frequency, but why do we assert that the Pythagorean Lambdoma Harmonic Keyboard holds the key to unlock the mysteries of the universe? First, we can measure the frequency of colors, chemical elements, organs of the body, and anything else, even planets, stars and galaxies. Then we can "translate" these frequencies to sounds that we can hear. Using the PLHK we can play, and play with, these sounds. Hearing these "new" sounds can be profoundly healing. Many people report that these sounds induce expanded states of consciousness. Barbara's PLHK's computer program also shows the beautiful sacred geometric shapes that correspond with the relationships, or ratios, between pairs of notes and even chords.

When our minds and bodies are out of harmony with our environment, illness may result. Perhaps hearing the full range of possible sounds creates harmony with our environment, and healing or wholeness. Barbara Hero's decades of research into the mathematics of sound has resulted in a Renaissance of music, and new, yet ancient musical scales, and a revolutionary musical instrument. A wealth of information about music and healing can be found at her website, www.lambdoma.com. Barbara's research has relied on the vital contributions of many researchers, and her work will be carried forward by other scientists in many disciplines. The Pythagorean Lambdoma Harmonic Keyboard will prove to be a landmark in unlocking the mysteries of our musical universe. As we approach the gateway to the infinite mysteries of the universe, we will find that the door is already open.

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Dear Hugo, I like your Cheops-Covenant Code. Year ago I was intuitively drawn to make music by using 222Hz, 333Hz, 444Hz and 555Hz as fundamental frequencies on the Lambdoma matrix. Now I know it represents part of the Cheops-Covenant Code. It sounds somewhat like Tibetan Bells.

I took the numbers from your http://users.pandora.be/kenneshugo/ Bible & Pyramid Archaeoastronomy. Your numbers 555 in Hertz represents a C#. Incidentally the C# is equivalent to the earth's period of rotation around the sun. C# is also connected to the predominant DNA clusters of music. The 666 in Hertz is an E+ in music, and is almost a harmonic chord with C#. I only mentioned this because I was guided to hear the sounds of the numbers 222, 333, 444, 555 and 666 in Hertz. 222Hz is A, 333Hz is E, 444Hz is also A, 555Hz C# and 666Hz is E+ again. A,C#,E is a harmonic chord based upon the note A. The scale would be LA, DO and Mi, that seems to relate to your Giza: Dynamic Model. http://www.planetarymysteries.com/egypt/rubino/gzdy2.html

How are vibrations assigned to chakras?

No one knows for sure just what frequencies are universal for the chakras. I chose my version based upon the colors of the chakra system. Red for root and purple for crown. Then I simply translated these colors into musical notes based upon Pythagoras' color coding of musical notation. In order to make the notation into frequencies, I used the ancient Lambdoma matrix of harmonic ratios and used the frequencies in Hertz in the middle C octave to represent the chakra system. 256(C)Hz root, 288 (D) polarity, 320(Eb) solar plexus, 352(F+) heart, 348(G) throat, 416(Ab) psychic center, 448(Bb)3rd eye, 480(B) crown. More recently, I found the frequencies of the orbits of the planets around the sun to be related to the sequence of my chosen chakra system. All this is in my aol website under "New Developments". I feel honored that some people, who manufacture tuning forks, have taken many of the frequencies on my website to use for their products.

Where can I find the Cantor-Array and the Farey-Series, you've mentioned? I know Georg Cantor only as father of set theory... May I ask what's the strangeness for you in Kayser's Lambdoma? Is it something about it's zero-origin? Or something too mystically?


Erv Wilson has an enormous amount of Farey Series and Lambdoma arrays on the website called Anaphoria. http://www.anaphoria.com/wilson.html

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Kaiser's "Akroasis" in Table II used zeros in the x and y axis of his table, where the 1/1's and 16/16's all became zeros rather than 1/1. I have always thought of the zeros as being points outside the matrix. But perhaps this version is closer to the Riemann Zeta hypothesis than we know. The Pythagorean Lambdoma ChiX also has zeros running along the outsides of the X.

How would we get THE fundamental RESONANT frequency of the shape, specifically how might we especially, for instance determine the singular primary resonant frequency of an irregular complex 2D polygon, such as say a thirteen sided figure, all with different side lengths and angles.

Converting 2 D geometric shape to corresponding acoustic frequency, conversion taking into consideration, all relevant dimensions of shape, including angles, length, width, area, etc.... shape could be for instance an octagon or even a lissajous figure

**FOR ANGLES:** TAKE THE ARCTAN OF THE RATIOS IN THE LAMBDOMA MATRIX TO FIND THE CLOSEST FIT ANGLES.

**FOR LENGTHS AND WIDTHS:** THE FORMULA IS \( F = \frac{V}{W} \):
- \( F \) IS ACOUSTIC FREQUENCY
- \( V \) IS THE VELOCITY OF THE SPEED OF SOUND IN AIR (~1130 FT PER SECOND, depending upon temperature and sea/land level)
- \( W \) IS WAVELENGTH

A.) converting 2 D geometric shape to corresponding acoustic frequency, conversion taking into consideration, all relevant dimensions of shape, including angles, length, width, area, etc.... shape could be for instance an octagon or even a lissajous figure.

*Could you explain to me the Pythagorean Lambdoma?*

You can find out all about the Lambdoma from my website: http://www.lambdoma.com

If you scroll down to the bottom of the page you will find a button ILRI. There is a description of the Lambdoma matrix that was attributed to Pythagoras.

I, with the help of others, created the Pythagorean Keyboard that is the first of its kind. I have used it with clients to help them discover themselves on emotional, spiritual and mental levels. It helps to lessen pain on a physical level. The client chooses the keynote, plays the keyboard and often goes into a happy dreamlike state. Also the client may watch the shapes of the harmonic musical intervals that are played. It is an aural, tactile and visual experience all at once.

*On your site you have a list of cycles per second(hertz) and their correspondences to the mental state... in this list you have listed 16 as the bottom limit of hearing. In my studies I have found that the majority of science agree that 20 is the lowest before infrasound. Looking at your charts i have gone through and added 4 hertz to each one to see what is*
would give me. What I need to know is if you think that what they say about 20 hertz is baloney. How exactly does the list work? Are the listed freqs the actual freqs to be used or do they represent something? Also, what decibel do you create the sound with and what speakers do you use. All the speakers I have don't go low enough to recreate the lower frequencies.

You are correct, sixteen cycles is below hearing. Even though it is below hearing (sub-audible) the vibrations are still there. In other words you would feel them as a slow vibration but not hear them. Some people cannot even hear 20 Hertz. I am not sure that adding 4 hertz would be what you wish. It depends upon what you wish to accomplish. When you add 4 Hertz to 16 you have 20 Hz a note that is Eb, instead of 16 Hertz that is a bit lower than C.

If you use the Lambdoma matrix you would set the fundamental to 320 Hertz a multiple of 20 Hertz several octaves above 320 Hertz. The listed frequencies from the Lambdoma matrix are based upon the fundamental frequency of 256 Hertz. Any frequency may be used as a fundamental in the Lambdoma matrix. Why don't you look at my Lambdoma Keyboard in my catalogue. This is the instrument that I use to generate different frequencies that are all harmonic no matter what frequency you choose as the fundamental frequency.

I use the Lambdoma keyboard with an IBM computer. It is the computer that has its own speakers. I do not have the sounds set to loud just normal. Most companies do not have speakers that go below 20 Hertz. Many computer programs only go to 110 Hertz.

So, you start at 256 and work up to 512. So 1=256, 2=257 and so on? Do you have a chart you can send me that translates the freqs in numerical order with their correlation to the psychic mind?

The scale that I use includes the harmonics of any frequency between 256 and 512, 288-576, 320-640, 352-704, 348-696, 416-832, 448-896, 480-960. This is a Lambdoma scale in each octave. The psychic center, I believe, is between the frequencies 416 and 832. In order to find the harmonic frequencies between 416 and 832 just multiply 52 by 8, 9, 10, 11, 12, 13, 14, 15 and 16.

I have been studying frequencies for school and have recently come across your site. The Science community lists 7-8 hertz as the resonant freq of flesh. The freq is extremely harmful to flesh and organs. Also, 19 hertz is supposed to vibrate the eyes and cause them to see 'illusions'. I see your chart and am interested in how it works and if it correlates with the others ideals. If I wanted to unlock the psychic (telekinesis is my goal) mind would I be able to do it by harmonic frequencies?

It is true that very low frequencies such as 7-8 Hertz may be harmful to the physical body. However when these frequencies are raised to an audible level they become
musical notes. The mathematics of musical notes is based upon the octave. The octave is simply a doubling or halving of any frequency.

I use a reference octave composed of frequencies between 256 Hz (a little below middle C on the piano) and 512Hz (C), (an octave above 256Hz). Within this octave are found 8 notes of the scale. In the scales of India are found 52 articulations (notes) within the octave.

Thank you for telling me about 19Hz. I didn't know that 19Hz results in "illusions." When raised to a musical note it is 304Hz (D#/Eb). The matrix that I use is made up of only harmonic and subharmonic ratios. The structure of the matrix itself seems to unlock the psychic in individuals.

*I hope you will find the time to read this E-book, called : The Cycle of Change. I want to ask you if you would be so kind to give me your opinion on it, positive or negative. The URL is : http://members.home.nl/peregrine or www.thecycleofchange.tk

You mentioned looking for the angles. The musical and ratio equivalents of the angles (when the fundamental is 256Hz (C)) are: 30 degrees = 7/12 [12th subharmonic](D), 36 degrees = 8/11 [11th subharmonic] (Gb), 54 degrees = 7/5 [5th subharmonic] F#, 60 degrees = 7/4 [4th subharmonic] A+.

Also, by octave reduction 25,920 years = an F musically, while 34,560 years = a C musically. This means that F at a ratio of 1/3 is a subharmonic of C at a ratio of 1/1. That is a wonderful sounding harmonic.

Also, 2160 years (F) is an octave reduction of 34,560 (F) by halving 4 times. 30 degrees (A) is 5th harmonic of F. This means that there is a harmonic chord of FAC (1st,5th,3rd) that is based upon the two precessions and the 30 degrees.

You mentioned in the introduction that 23.5 degrees is the plane our planets rotate around the sun . 24 degrees = 4/9 (ratio) = Bb. The setting and rising sun at about 80 degrees =11/2 (ratio) = F. Bb is a harmonic of a third 3rd or 3/2. The chord would be F, Bb, C, a traditional wonderful harmonic, that includes both precessions as well as the 24 degree plane of the planets.

*Are your books translated in Italian language?

Alice Galassi, who has made some translations of some of my writings. Her e-mail address is: a.galassi@flashnet.it

*DO ANY OF YOUR BOOKS GIVE THE CHORDS IN SUCCESSION RATHER SPECIFIC NOTES THAT MAKE UP THE CHORDS IN YOUR MUSICAL ACUPUNCTURE MERIDIANS TAPE OR COULD U WRITE THE NOTES OR HAVE THE SHEET MUSIC?

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I have not dealt specifically with chords in my music. I would have to look up the Amiga program software for the Meridian tape and translate the frequencies back into notes that made up the chords. If you think that you could use something like that let me know. Also, I do not have sheet music for either the Meridian or the Chakra Attunement music. The Chakra Attunement tape is the only one done with the Western scale. We sell the tape but will have to check to see if we have a score. If we do have a printout it would be part of a software Amiga program.

Do you have a copy of my "Chakra Attunement Chords" cassette? If you do you could just make a copy of the sounds to use as samples for your equipment.

Below is the way of arranging the chords in a musical form from the "Chakra Attunement Chords" These frequencies are all within the middle C octave:

<table>
<thead>
<tr>
<th>CHORDS</th>
<th>FREQUENCIES IN MIDDLE C</th>
<th>CHAKRAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>C G C G E</td>
<td>256 384 512 768 1280 root throat root throat</td>
<td></td>
</tr>
<tr>
<td>C# G# C# G# F</td>
<td>272 408 544 816 1360</td>
<td></td>
</tr>
<tr>
<td>D A D A F#</td>
<td>288 432 576 864 1440 polar 3rd eye polar 3rd</td>
<td></td>
</tr>
<tr>
<td>Eb Bb Eb Bb G</td>
<td>315 473 630 948 1575</td>
<td></td>
</tr>
<tr>
<td>E B E B Ab</td>
<td>320 480 640 960 1600 solar crown solar crown</td>
<td></td>
</tr>
<tr>
<td>F C F C A</td>
<td>341 512 682 1024 1705 heart root heart root 3rd</td>
<td></td>
</tr>
<tr>
<td>F# C# F# C# A#</td>
<td>352 528 704 1056 1760</td>
<td></td>
</tr>
<tr>
<td>G D G D B</td>
<td>384 576 768 1152 1920 throat polar throat polar</td>
<td></td>
</tr>
<tr>
<td>Ab Eb Ab Eb C</td>
<td>410 615 820 1230 2050</td>
<td></td>
</tr>
<tr>
<td>A E A E C#</td>
<td>416 624 832 1248 2080 3rd eye solar 3rd eye sol</td>
<td></td>
</tr>
<tr>
<td>transpersonal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bb F Bb F D</td>
<td>448 672 896 1344 2240</td>
<td></td>
</tr>
<tr>
<td>B F# B F# Eb</td>
<td>480 720 960 1440 2400 crown heart crown heart</td>
<td></td>
</tr>
<tr>
<td>solar</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To imitate the sounds from the cassette divide the frequencies in the top row by 16 for the lowest sounds. They increase pitch by increments as you go from the top row to the bottom row.

How do the Meridians fit in? The Meridians have their own frequencies based on the angles from 31 degrees to 45 degrees. The musical notations include their scales A, B, C, D E, F and G. Do you have our "Musical Chords Affecting our Body's Acupuncture Meridians"?

1- I'm confused about the colors of the chakras. I've never seen them, but I thought the crown was violet, 3rd eye royal blue and the throat ice blue. Seems like everyone has their own version of what they are seeing. How did you settle on the colors?
2-Room tuning for the apartment dweller...I didn't really find a place where this is discussed. . . can a room be retuned to increase a desired outcome? Can my WALLET be tuned to have plenty of ready cash to have fun with. :-)

3-I am familiar with sound + color + intention = creation, but I'm uncertain as to whether or not this is also what you are discussing in your work. How do you imput this into the grid?

1) The colors of the chakras I estimated at being complementary. That is, that the crown then becomes gold instead of violet, the third eye becomes yellow-orange instead of royal blue, the throat becomes orange instead of ice blue, etc. This is calculated by taking the frequencies (instead of the wavelengths) of audible sound multiplied many times to reach the frequencies of the colors.

2) On "room tuning", you can find out what the harmonics are in your room by measuring the height, length and width. The chart will show you what the musical notation is. If you get a C E G or D F A etc. You will be in a room that is very harmonious. If you are an architect you could build a room that is in harmonic musical proportions. About the wallet, it doesn't relate!

3) On the grid, all of the ratios are proportional to each other, therefore you may measure the dimensions of a room and find the ratios within the grid, thus insuring that your room is in perfect proportions. To use sound simply multiply all the ratios in the grid by the audible frequency in Hertz that you choose, and all the sounds will be harmonic with each other. Our Pythagorean Lambdoma Harmonic Keyboard will do this. http://members.aol.com/bhero/hardware.html

Pythagoras color-coded each musical note to a specific color, so that there can be a one-to-one relationship between sound and color. The intention of helping humanity is always the best key.

I can understand how you used the Lambdoma matrix for evaluating length, orbits, time, etc for everything accept the elements. Please describe how you arrived at the frequencies you have for the elements. In using their atomic mass one comes close. I realize that others would change the mass value stating that the physicists have not accounted for everything in determining each element's mass. Even if you change them slightly, it is still difficult to get a harmonic (octave) relation between the individual elements of a given row in the periodic chart.

I am trying to determine the best frequency that can be associated each element directly or proportionally. I have seen others use the nuclear magnetic resonance technique to determine the frequency of each element. Others have tried to do by calculating the wavenumber of the element and matching it to a musical interval. The latter produces many wavenumbers for the same frequency which then varies across the entire musical scale.

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The way I determined the elements was by taking the element number and multiplying it by 2 until it reached a reference octave between 256 and 512.

I consulted a physicist in Atlanta, Georgia who had written an article in the New York Academy of Science journal. Unfortunately, I have misplaced his name. I went to his office at the University and asked him what would be the best number to use in order to translate the periodic table to musical frequencies. He replied that the number of the element would be the best way. Later I realized that the atomic weight (or density) of each element is close to an octave relationship. Because I believe in the inverse relationships in color, music, etc. I then took the inverse (reciprocal) of each frequency as a duality that would include a musical chord.

I am sure that there are many other ways of determining the music of the elements. Perhaps you will be able to find another way on your own.

The matrix is now applied to an actual Pythagorean Lambdoma Harmonic Keyboard. You may view it's description on my webpage:
http://members.aol.com/bhero/hardware.html

Is the PLHK capable of generating tones in the Mhz range?

Our Lambdoma Keyboard's matrix would range from 20 to 20,000 Hz as that is range of most computers. Mhz would be 1,000,000Hz, that is way beyond hearing. Is that what you were thinking of? Do you want 440hz multiplied by 2 a number of times to equal 1,802,240Hz? The middle C octave (+ or - one octave) is the one that most sound healers tend to use. There are some sound healers such as Nichole Lavoie that use the lower frequencies down to 16hz or so.


Perhaps I'm missing something obvious, but the formula shown; \( v = fw \) doesn't seem to actually provide the cps. What exactly is the octave expansion / reduction formula? In other words, specifically how are miles, such as 4264 miles actually converted to cps. I understand that once the cps is determined its a simple process of multiplying by 2 to the "n" number to arrive at the musical note.

Let's say that I want to know \( X \), representing an unknown frequency / cps, and I know the miles, \( 1000 \)" and \( v = 1130 \),
\[ v = (x)w \]
how is 'x' determined? formula wise?

The concept of using the 1130 for the average speed of sound in air allows one to compute the frequency of organ pipes. More importantly, it allows the computing of the
resonant frequency of rooms with opposing flat walls. It is also important, for instance in computing the distance to a flash of lightning. Therefore, each second after you see a flash of lightning, it means that for every second that you count the flash is approximately another 1130 feet away.

Because echo is required for there to be a resonance, this allows you to know how far away the echo is coming from.

I work with the number of feet in a mile in my measurements of the grid system. The speed of sound in air at room temperature is 1130 feet/sec. This makes one foot equal to 1130 (Db). Since there are 5280 feet in one mile, one mile equals \( \frac{214015151}{1000} \) cps. 1000 miles equals 5280000 feet. Therefore \( \frac{1130}{5280000} \) equals \( 2.140151515^{-10} \) to the 04Hz. By octave expansion (multiplying by two until one comes to the reference octave between 256cps and 512cps we get 448.8cps Bb as is seen in the chart of miles in "International Harmony based upon a music of planetary grid systems".

I've seen your wonderful chart that relates areas of the body to specific Hertz to promote healing. What I don't understand is how you make the Lambdoma play tones within a specific Hertz or range. When you play that specific Hertz frequency, do you play complementary tones to support healing in that body part or the same tone repeated for some duration of time?

I'm not clear about how the keyboard works with color, unless we are simply referring to another frequency/vibratory level. Does the art work produced by the keyboard have anything to do with healing capabilities?

The Lambdoma Keyboard is in the form of a matrix that generates all the frequencies in the matrix by putting the specific frequency as a fundamental in the 1/1 position. Therefore all the frequencies in the matrix are harmonically controlled by the chosen fundamental frequency, what ever it may be. Usually, I keep the fundamental frequency as a drone. It is the drone that, I believe, creates the healing, for it creates a stereo interval with all the other ratios in the matrix. All the tone/ratios are relatively complimentary to each other because of the fundamental governing frequency.

The keyboard does not produce color only sound. We have made four color overlays for the PLHK based upon C at 256Hz as the color red. The notations in the Lambdoma scale include all the primary, and secondary colors according to Pythagoras' "color-coding". One could just play the different colors on the overlay to see how they sounded and how they felt. Yes, I also believe, that color heals. When a person selects their favorite note from the matrix, it represents a color as well, very often their favorite color.

We also include four overlays for the PLHK of Lissajous shapes that are consistent in configuration no matter what frequency is chosen. That way individuals can also just play the harmonic shapes and create harmonic sounds.

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About your last question on the right and left sides of our bodies. As I understand it the right side of the body is the male energy and the left side is the female energy. When a healer, Foster Perry visited us here in Maine, he healed my partner, Robert, by working with my right side. The Lambdoma has a right and a left side. The right side is made up of ratios that are called the overtone harmonic series. The left side is made up of ratios called the undertone subharmonic series. The overtone series may be likened to spiritual plane, while the left side is the earth plane. This is evident from Pythagoras' Lambdoma CHI X table that is in the form of a hour glass (as above, so below). Above is the cosmic, below is the earth plane represented by the Lambdoma with its left and right sides (both spiritual and earth plane).

My suggestion when you have the PLHK is for each of you, one at a time, to choose your favorite sound from quadrant 1 of the PLHK. Then you set the frequency that you chose (which you will see on the screen) to be the fundamental frequency of your own matrix. Using your own fingers as your kinesiology tools, you then play in succession all four quadrants for about 4 or 5 minutes each. When you ask questions of your higher self as you are playing, expect that you will find the answers. I have conducted about 250 private sessions using this method with almost instantaneous results concerning health, mission, emotional and spiritual needs.

You will be able to experiment in all sorts of ways with the PLHK. I am a trial and error sort of person and do my work based upon intuition (what feels right) to a large extent.
Q & A 2

I've been finding the information about the frequencies of the different parts of the body etc very interesting, but was wondering how it is measured & what scale it is measured in ie hertz per second.

The frequencies of the different organs of the body were provided by ultrasonic frequencies from one of the hospitals in my area. I then calculated the frequencies to be in musically audible reference octaves. The Hertz frequencies fall between the cracks of a piano keyboard so the scale is not a familiar one in the Western world.

William Delbert Gann
http://www.xmlworks.com/gann/sotu.html
http://www.webspace4me.net/~blhill/pages/w.d.gann.html
http://www.webspace4me.net/~blhill/pics.aux/gann/SquareofNine.jpg

My drawing on the cover of my book "Glass Bead and Knot Theory of Relationships" is a Lambdoma diagram of octaves that starts at the center and continues in a square spiral. It is definitely a Gann Square.

Do you feel it would be accurate to say that to arrive at a true 'signature' resonant freq for a shape whether it is 2d or 3d such as a room, that we sum all relevant component freqs derived from the angles, and various dimensions such as length, width, etc.... for instance how accurate would it be in your opinion, to say we have determined the actual signature resonant freq for a room by adding all the angle freqs + length freq + width freq + height freq, does the sum of all these adequately represent such or is some other formula method required. Unsure if you are familiar with Royal Rife, Priore or Beardens works, but they seem to think for instance that each material object such as a 'wine glass'

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has its own literal and unique 'identifier stamp', a resonant freq that actually defines it in
time / space, etc... by knowing the unique stamp the object itself can be specifially
modulated / engineered...

Yes, I am familiar with Rife's work as well as Tom Bearden's work. Each object or room
has its own resonant frequency.
When the frequency is in tune (in unison) with the object it resonates. You might have a
formula that is somewhat like this:
R = (l^3 + w^3 + h^3 + a^3) where R = resonance; lwha = length, width, height, and
angle cubed. You can play around with this concept and might come up with something
that works.

I have been looking for recommended books to read on sound healing. Can you
recommend any?

I am also looking for somebody to tell me how to measure the frequency of a vibrating
item such as a Tibetan bowl or a ringing bell.

I am currently doing Hypnotherapy and I would like to incorporate these healing sounds
in my therapy.

If you search the web look for Jonathan Goldman. He has books on "healing with sound."
Don Campbell is another, as is Fabian Mamon, Kay Gardiner, and many others.

About measuring the frequency of a Tibetan bowl or a ringing bell. You could buy a
frequency counter from an electronics firm and a contact microphone. The frequency
counter would give you a digitized read out. If you want only the notes of a scale a
simple musician's tuner (at a music store) would allow you to recognize the notes.
Perhaps you could find other method on the internet.

My name is Huub Klaassen.

I want to thank you for spending time on my approach on the Chartres Labyrinth.
The results you mention are quite remarkable and a real inspiration for me to continue my research.

I am not a mathematician or musician, but mostly use my intuition regarding my attempts to find the true harmony (numerical, geometrical or otherwise) inside various ancient monuments..

Perhaps this 'unbiased' approach has some major advantages, perhaps not.

Up until now, I have used the geometrical composition which I found inside the Labyrinth as a Key to 'unlock' the geometrical peculiarities of the groundplans/features of several ancient structures like: The Giza-complex, The Angkor-complex, Borobudur and the groundplan of Chartres Cathedral..

Geometrical/astronomical- speaking, all mentioned structures have some very striking things in common.

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By applying the labyrinthine Key, they all revealed a geometrical 'clockwork' which demonstrates ancient knowledge about the cycle of Precession. (25,920 years) Measured against this astronomical cycle however, they also demonstrate an even larger cycle of 34,560 years, which comprises a series of 16 zodiacal signs (or 4/3 parts of the cycle of Precession).

The geometry of the groundplan of Chartres Cathedral certainly embodies and demonstrates this larger cycle.

When I saw your illustration of the resonances inside this Cathedral, I instantly recognised some patterns that are very familiar to me.

With the reversed and mirrored nature of the two halves of the 'straightened' labyrinthine path in mind, the groundplan of this place makes a lot of sense, for if we draw a line through the centre of both Transepts and then 'mirror' the location of the Labyrinth towards the Choir, the form of the Labyrinth fits snugly inside the semi-circular part of the Choir, at the spot where 'the other source near the altar-area' is situated.

To me the Lambdoma Matrix makes a lot of sense and certainly strikes some chords with me. I've attached a graphic of a part of the geometrical clockwork of Chartres for clarification.

Again, thanks for spending time on the Labyrinth.

It almost looks as though the dimensions of the Great Pyramid is the central pyramid in your drawing superimposed on the Chartres Cathedral.

So 25,920*4/3 = 34,560. A ratio of 4/3 is a musical fourth in music. This means that the precession of 25,920 years is the ratio of 1/1. That means that 272.2Hz a C#/Db is the 1/1 ratio. That particular frequency reduced to a reference octave in music is the same as the orbit of our planet around the sun. It also represents one of the DNA clusters of C# researched by Susan Alexjander.

Thank you so much for your insight and your very important key to "unlock" so many geometrical peculiarities of ancient groundplans. If you work our the ratios for each of the 16 zodiacal signs, you would have a very important musical matrix.

Your website is magnificent. I wanted to add some things that stimulated me after reading your chapters. Perhaps these will mean something to you as well.

You mentioned looking for the angles. The musical and ratio equivalents of the angles (when the fundamental is 256Hz (C)) are:
30 degrees = 7/12 [12th subharmonic](D),
36 degrees = 8/11 [11th subharmonic] (Gb),

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54 degrees = 7/5 [5th subharmonic] F#,

Also, by octave reduction 25,920 years = an F musically, while 34,560 years = a C
musically. This means that F at a ratio of 1/3 is a subharmonic of C at a ratio of 1/1. That
is a wonderful sounding harmonic.

Also, 2160 years (F) is an octave reduction of 34,560 (F) by halving 4 times. 30 degrees
(A) is 5th harmonic of F. This means that there is a harmonic chord of FAC (1st,5th,3rd)
that is based upon the two precessions and the 30 degrees.

You mentioned in the introduction that 23.5 degrees is the plane our planets rotate around
the sun. 24 degrees = 4/9 (ratio) = Bb. The setting and rising sun at about 80 degrees
=11/2 (ratio) = F. Bb is a harmonic of a third 3rd or 3/2. The chord would be F, Bb, C, a
traditional wonderful harmonic, that includes both precessions as well as the 24 degree
plane of the planets.

From: "William S. Buehler" roslinne@fone.net Subject: Klaassen labyrinth graphics

Here are the 3 [Klaassen labyrinth graphics] he gave me. He also sent this note which you
might use:

In order to give you some idea of my work so far, I will give you a synopsis of my way of
approach.( we can always go into this in further detail if you wish so). I started out with
the form of the circular Labyrinth as it is present in Chartres Cathedral. Since this circular
form has an almost 'hypnotising' effect on any onlooker, it is extremely difficult to
examen it more closely.

The circular form can easily be devided into four quadrants and doing so, I found that the
seperate loops of the path never exceed more than two quadrants. This gave me the idea
to try and 'straighten' these curved loops so I could investigate them more closely without
the 'hypnotising effect'. The stunning result of this 'straightening' was an image of the
labyrinthine path which harboured the most perfect properties.

After having established this true baseline of the Labyrinth this way, the geometry almost
automatically took over and the entire Labyrinth seemed to come alive somehow in a
most spectacular way. Every geometrical form seemed to dictate the form, position,
direction and proportion of the next one and so on. This went on until the entire
composition was completed and the end-result radiates a sense of perfect balance and
proportion. Several line-ups exist inside this composition, especially between the
hexagram and the pentagam and both suggest a delicate geometrical interplay inside the
composition which proves to be based on the values of the Golden Number.

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The Labyrinth can be approached in two ways: one way works as is mentioned above and results in this geometrical composition; the other way is to construct this composition in a purely geometrical way, starting out with a small circle.

As soon as the composition is completed this way, the lines of the various geometrical forms will generate the same baseline on which the Labyrinth is constructed.

All that is needed here is a pair of compasses, a ruler and a good sense of logic and precision.

The baseline of the Labyrinth is a wonder in itself: although it is one line, it exists out of two line-halves which are the exact reversed and also mirrored images of each other.

Much encouraged by this 'geometrical revelation', I have tested the geometrical interplay of the Labyrinth on the lay-out or ground-plans of several ancient structures like: the Giza complex, Angkor, Borobudur etc. To my great astonishment they all readily revealed their true nature, namely: inside the geometry of these places, a most beautiful and incredibly clever astronomical 'clockwork' is preserved which ticks away the seasons of the heavens, in this case an unknown cosmic cycle that comprises 34.560 earth-years.

All ancient structures on which I applied this labyrinthine key gave exactly the same result.

We know that, with regard to precession, the space of one Zodiacal sign on the Ecliptica comprises a timespan of 2.160 years.

Where one complete cycle of Precession comprises 12 x 2.160 = 25.920 years, this cycle of 34.560 years comprises 16 signs.

When tested on the groundplan of Chartres, here also (and very much to my surprise) the geometry of the place generated an exact timespan of 34.560 years and I most strongly believe that the 16 Grail Kings that you mention are of extreme importance here.

The geometrical / astronomical clockwork at Giza gives as a startingposition of this large cycle a point in time when the Zodiacal sign of Leo formed the background of the sunrise on the morning of the spring-equinox (about 13,000 years ago).

When we take it that this starting position was in the middle of this Zodiacal sign, we can comfortably add another 1000 years to this (1080 years to be precise) in order to arrive at the Rutans at a point in time when the sign of Leo began.

If the present large cycle indeed started with the Sign of Leo (as the clockwork at Giza indicates), this implies that the large cycle preceding the current one must have ended in the Zodiacal sign of Virgo. Seen in this light, the name-giving of most Gothic Cathedrals might have an additional and perhaps very special reason. All those who have worked so
hard on restoring the ancient knowledge and have tried to bring this knowledge to a next
and higher level may indeed and most appropriately be called true Children of the Virgin.
(In a way you mention this yourself "Basically WE are the Templars, back to continue
the work").

I am quite convinced that certain aspects of the ancient knowledge still linger in the
geometry of the groundplans of the circular Templar churches. After 1307, most of them
were taken down and were rebuilt in a more rectangular style. (Why exactly was this
done?)

These are only some remarks and questions on the task at hand. I sincerely hope they will
be of any help to you, the same as your labour is important for my understanding and way
of approach. Ultimately we appear indeed to be working on the same task.

Bill Buehler

The geometry is certainly a square sine wave. This is quite a remarkable way of
analyzing the Chartres Labyrinth.

His linear sine wave forms could also be a musical score, with the spaces being F,A,C,E,
and the bars being E,G,B,D,F. You could make chords where two are together. It sounds
great on the piano.

The Labyrinth score above could be translated into frequencies so that you might have:
341Hz(F), 341Hz(F)448Hz(A), 341Hz(F), 448Hz(A), 512Hz(C), 640Hz(Eb), 640Hz(Eb),
640Hz(E)525Hz(C), 640Hz(Eb).

I was comparing the Labyrinth to a Lambdoma Mandala a while back:
http://members.aol.com/Lambdom/Home/ILRIHomePage.html

If you scroll near to the bottom of the section above, you will find the Mandala of the sun
and one of the earth. The color coding of the notes indicates a spiral. The color coding of
the musical notes is: A = purple, B = magenta, C = green, D = orange, E = yellow, F =
green, G = blue. I transposed a transparency of the Labyrinth over the Mandala of the sun
and had interesting results. Perhaps there is a connection here to Klaassen's Labyrinth?

*My research and reading has led me to the concept of "entrainment" that involves the
ability of the more powerful rhythmic vibrations of one object to change the vibrations of
the less powerful rhythmic vibrations of another object and cause them to synchronize its
vibrations with the first object.*

*My question is: What makes the rhythmic vibrations of one object more POWERFUL
than the rhythmic virbrations of another object?*
The Lambdoma Keyboard is an example of entrainment. The fundamental frequency that you put in the 1/1 position controls all of the other ratio frequencies in the matrix. Realize that you may put any audible frequency in the 1/1 at any audible octave.

When a client chooses their favorite frequency out of Quadrant #1, his or her choice determines the more powerful vibration. It is this factor, I believe, that causes the entrainment that results in the client being able to access their "higher selves", "higher consciousness", etc. All the other frequencies in the matrix are governed by that chosen fundamental. I always use the "drone" feature in FTS in order to have the effects of entrainment. The drone feature is always present in LambdomaS. LambdomaS is is a very good simple program to use with a client.