

# **Liber XLIX**

## **Shi Yi Chien**

*Being an account of the divine perfection  
illustrated by the seven-fold permutation of the Dyad.*

The symbol system of solid and broken lines that comprise the Yi Jing was created before the more complicated symbols that carry the Chinese language. There are 64 Hexagrams, 128 Trigrams and the 384 lines to carry information correlated to what may be called the Aethyric formation of the Universe. The educational work contained herein focuses on building a body of light from the Aethyr and then applying this knowledge to the Magnum Opus.

Commanding the Aethyr is essential in the work of transmuting consciousness. For once we have formulated the Body of Light and the Aethyr, we may then apply the Hexagrams and especially the Trigrams (as suggested by the triadic nature of the caduceus; also the two strands of DNA and their dynamic relation with RNA) in a scientific manner. The Hexagrams especially are also correlated to the paths of The Qabalistic Tree Of Life and the Holy Tarot. The comparison with genome coding is uncanny.

Theme Hexagram - 49<sup>th</sup> I Ching Hexagram, Ger

Each I Ching Hexagram has an attribution in the Daoist system like the letters of the Hebrew alphabet are attributed to the Tree-of-Life. The 49<sup>th</sup> Hexagram Ger is not particularly more significant than the other Hexagrams. It's value is synchronistic for the Thelemic Qabalah as it is the number of Babalon (7 x 7). It's title more aptly describes the nature of the Aeon of Horus as nothing short of a spiritual revolution whose aim is to bring humanity to that spiritual consciousness that will usher in the Aeon of Aquarius. We begin this process through a conscious intention take on the Great Work.

Herein the 49<sup>th</sup> Hexagram, Ger has been designated with the title of Spiritual Revolution. The Chinese character we enunciate as Ger in ancient times included the meaning of molting. We could use the example of the molting of a lizard's skin as it grows. A lizard discards its old skin or patterns as it grows. The two Trigrams that compose the 49<sup>th</sup> Hexagram are Fire and Water, the former suggesting the nature of the Aeon of Horus and the latter suggesting the Aethyr (i.e. the waters separated in Genesis). There gematric value of 340, reduces to 7. Shin-Mem spell the Hebrew word that translates as 'The Name,' suggesting the Logos.

The Construction Of The Tai Chi And 64 Hexagrams

In Taoist alchemy the Wu Chi (void) births the Tai Chi (manifested universe). All is in the Tao. The movements of the Tai Chi are correlated to the changing lines of the 64 I Ching Hexagrams. Each Hexagram has six lines. The lines are either solid Yang lines, broken Ying lines or usually a combination of the two. Yang and Ying symbolize the

polarity in the Tao. Each Hexagram is made of two Trigrams, composed of three lines. A close study of the Trigrams and the Hexagrams will reveal basic images, such as fire boiling water as in Ger the 49<sup>th</sup> Hexagram. This description is quite apt in revealing the nature of the Aeon of Horus. It is the adjustment<sup>1</sup> period that is correcting the interference of the Black Brothers in the Aeon of Pisces as we prepare for the Aeon of Aquarius.

The Universe could be defined as a limitless Aethyric ocean varying in vibration, collectively revealing the essence of the Monad. Astro-physics has shown us the totality of this as it has connected with the ancient Astrology and what is now known as the Starry Gnosis. In terms of holographic theory, the evolutionary process of the Universe is showing the intelligent design of the Monad. The Holy Qabalah shows lines of causality stretching back to the beginning of this universe and beyond, into an endless synergistic system.

Consciousness is an evolutionary development. A sub-section of this is the law of tempering. Consciousness is tempered or refined through countervailing antiquated vibratory patterns with ones of a higher frequency. The slower ones are tempered and gradually replaced by their higher octave. This becomes more apparent as we study the outer and more recently discovered planets. Uranus becomes the higher arc of Mercury as Neptune becomes the higher arc of Venus, and Pluto, the higher arc of Mars. Another sub section of this is the Law of Meditation. It states that consciousness is upgraded by restructuring sub-consciousness by means of active meditations.

Spiritual correctness is a moral law of integrity. Once one engages the karma of Oaths connected with the Great Work, and is active in conscious evolutionary development one gradually transmutes the nature of one's separateness by discovering our Aethyric interconnectedness. We are seen as one in the light of the Monad, validating the formula given in AL I.45: **The Perfect and the Perfect are one Perfect and not two; nay, are none!**

People are integrative parts of larger and larger segments of the Monad. We could begin with the atoms that form the cells within our bodies. Then move on to the larger whole of the web of life on earth that we are a part of. Earth is an integral part of this solar system. Our solar system is part of this galaxy, which is a living cell in the universal body of the Monad.

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<sup>1</sup> The Adjustment Atu has Venus attributed, and so again, risking a little bit of a stretch, we have a recursion of 7 on a Sephirotic level. The balances depicted in the Atu show the element of Fire juxtaposed with the element of Water.

A Range of Principles And Forces in the Yi Jing  
(For a more complete listing refer to the individual Hexagrams)

Unity/Separation

Expansion/Limitation

Equilibrium/Unbalancing

Integration/Disintegration

Rhythm/Discord

Correspondence

Intention

Principle is not bound by precedent

Will to survive-Repulsion or fear of death

Will to pleasure-Repulsion or fear of Pain

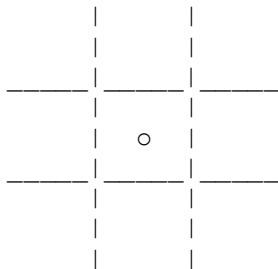
Will to increase ones power/control-Repulsion or fear of loss of control/power

Will to integration/unity-Repulsion or fear of unity and integration.

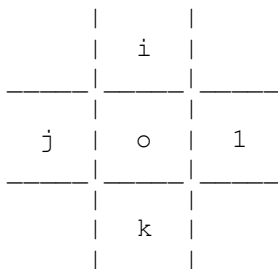
**I Ching (Ho Tu and Lo Shu),**  
**Genetic Code,**  
**Tai Hsuan Ching, and**  
**the D4-D5-E6-E7-E8 VoDou Physics Model**

- 0 [Tao, Simplex Physics](#)
- 1 [bit](#)
- 2 [superposition qbit](#)
- 4 [spacetime](#)
- 16 [fermions Ilm-al-Raml](#)
- 256 [Cl\(8\) IFA](#)
- 65,536 [Torah Genes](#)
- $2^{32} \sim 4 \times 10^9$  [Genome Base Pairs](#)
- $2^{64} \sim 16 \times 10^{18}$  [Brain Electrons](#) [Planck](#)
- $2^{128} \sim 256 \times 10^{36}$  [Brain GraviPhotons](#) [Uncertainty](#)
- $2^{256} \sim 65,536 \times 10^{72}$  [Particles in Universe](#)

Chinese cosmology begins with the undivided Tai Chi,  
then separating into Yin-Yang, ... :  
Let o represent the undivided Tai Chi, a scalar point of origin:



Then add 4 vector directions of Physical Spacetime:  
1, i, j, k of the quaternions  
to get the 5 Elements:



Then add 4 vector directions of Internal Symmetry Space:  
 E, I, J, K of the [octonions](#),  
 which are the basis for the [D4-D5-E6-E7 physics model](#),  
 to get 9 directions:

J	i	I
j	o	1
K	k	E

The 10th direction is Yin-Yang reflection  
 of the 8 vector directions 1, i, j, k, E, I, J, K.

Now, identify the 3x3 square with the [Magic Square](#)

4	9	2
3	5	7
8	1	6

whose central number, 5, is also  
 central in the sequence 1, 2, 3, 4, 5, 6, 7, 8, 9  
 which sequence corresponds  
 to the [octonions](#) 1, i, j, k, 0, E, I, J, K

whose total number for each line is 15,  
 the dimension of the largest [Hopf fibration](#) and the dimension of the  
 imaginary [sedenions](#).

If you take into account the direction in which you add each  
 of the 8 ways, and add all directed ways together  
 you get a total of  $16 \times 15 = 240$  which is the number of vertices of a  
[Witting polytope](#).

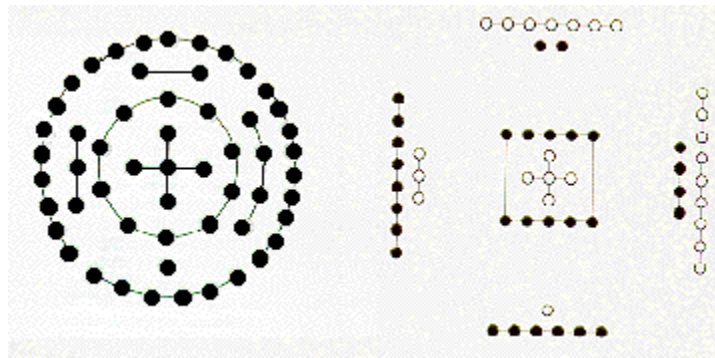
The total of all 9 numbers of the [Magic Square](#) is 45,  
 the dimension of the D5 [Lie algebra](#) Spin(10)  
 that is used in the [D4-D5-E6-E7 physics model](#) in which  
 the D4 Spin(8) subgroup of Spin(10) corresponds  
 to 28 bivector gauge bosons  
 and the 16-dimensional homogeneous space  
 Spin(10) / Spin(8) x U(1)  
 corresponds to an 8-dimensional complex domain  
 whose Shilov boundary is  $RP^1 \times S^7$   
 corresponding to an 8-dimensional spacetime.

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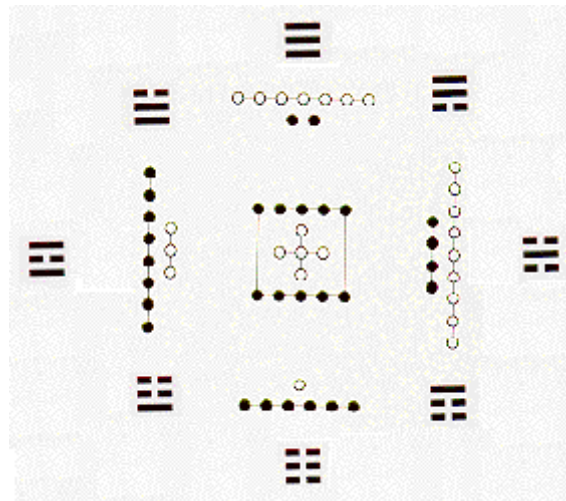
Perhaps about 5,300 years ago, China's first emperor, Fu Xi, saw, rising from the Yellow River, a dragon-horse with markings of the

## Ho Tu,

shown here in its ancient and modern forms:



Fu Xi interpreted the 4 directions and 4 diagonal directions of the Ho Tu in terms of the Earlier Heaven arrangement of the [8 trigrams of the I Ching](#):



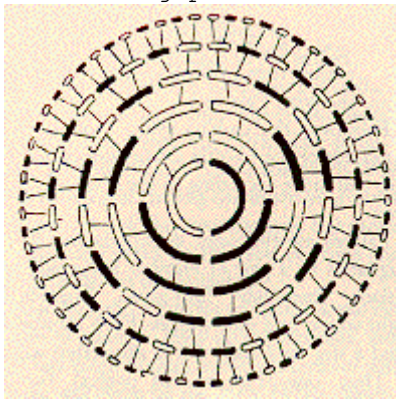
The 8 trigrams of the I Ching are similar to the [16 tetragrams of Ilm al-Raml](#) (the Science of the Sands) attributed to the third Islamic prophet, Idris, which were preserved from the [Global Early Civilization](#) as the [FA of the Fon people of Benin \(Dahomey\)](#).

[Baba Eyiojbe](#) says "... It is indeed part of the [Ifa](#) tradition that [Ifa](#) was brought to China, but in a more limited form. This is sometimes attributed to a warrior path of Obatalá, Obatalá Ayaguna. This path of Obatalá is the Ifa diviner for the other paths of Obatalá as well (when Orunmila does not do it directly). ...".

It seems to me as though [Vedic divination](#) and Tai Shuan Ching are based on the [Triality](#) aspect of the 256-dimensional  $Cl(8)$  [Clifford algebra](#) of [IFA](#), while I Ching is based on the 64-dimensional  $Cl(6)$  [Clifford subalgebra](#) of the  $Cl(8)$  of [IFA](#).

When the 8 trigrams are combined in pairs according to the Fu Xi Earlier Heaven Ho Tu arrangement to make [64 hexagrams of the I Ching](#),

you get a very symmetrical I Ching pattern



Although the Earlier Heaven arrangement of the 8 trigrams does not exactly correspond to the binary number sequence from 0 through 7 (it is 0,1,2,3,7,6,5,4 instead of 0,1,2,3,4,5,6,7), the Earlier Heaven arrangement of the 64 hexagrams does correspond to the binary number sequence from 0 through 63.

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According to two 13 February 2001 articles in [The New York Times](#) by Nicholas Wade: "... Dr. J. Craig Venter and colleagues at Celera Genomics report in ...[ [Science](#) 291 (16 February 2001) 1304-1351 ]... that they have identified 26,588 human genes for sure, with another 12,731 candidate genes. ... Celera's rival, the publicly funded consortium of academic centers, has come to a similar conclusion. Its report in ...[ [Nature](#) 409 (15 February 2001) 860-921, where they say "... Genes (or at least their coding regions) comprise only a tiny fraction of human [DNA](#), but they represent the major biological function of the genome and the main focus of interest by biologists. ...." ]... pegs [the probable number of human genes at 30,000 to 40,000](#). Because the current gene-finding methods tend to overpredict, each side prefers the lower end of its range, and 30,000 seems to be the new favorite estimate. ... Most of the repetitive [DNA](#) sequences in the 75 percent of the genome that is essentially [junk](#) ceased to accumulate millions of years ago, but a few of sequences are still active and may do some good. The chromosomes

themselves have a rich archaeology. Large blocks of genes seem to have been extensively copied from one human chromosome to another, beckoning genetic archaeologists to figure out the order in which the copying occurred and thus to reconstruct the history of the animal genome.

As the modest number of human genes became apparent, biologists in both teams were forced to think how to account for the greater complexity of **people**, given that they **seem to possess only 50 percent more genes than the roundworm**. It is not foolish pride to suppose there is something more to *Homo sapiens* than *Caenorhabditis elegans*. The roundworm is a little tube of a creature with a body of 959 cells, of which 302 are neurons in what passes for its brain. Humans have 100 trillion cells in their body, including 100 billion brain cells.

Several explanations are emerging for how to generate extra complexity other than by adding more genes. One is the general idea of combinatorial complexity - with just a few extra proteins one could make a much larger number of different combinations between them. ...

The two teams' first scanning of the genome suggests ... ways in which humans have become more complex than worms.

One comes from analysis of what are called protein domains. Proteins, the working parts of the cell, are often multipurpose tools, with each role being performed by a different section or domain of the protein. Many protein domains are very ancient. Comparing the domains of proteins made by the roundworm, the fruit fly and people, the consortium reports that only 7 percent of the protein domains found in people were absent from worm and fly, suggesting that "few new protein domains have been invented in the vertebrate lineage." But these domains have been mixed and matched in the vertebrate line to create more complex proteins. ...

Evolution has devised another ingenious way of increasing complexity, which is to divide a gene into several different segments and use them in different combinations to make different proteins. The protein-coding segments of a gene are known as exons and the DNA in between as introns. The initial transcript of a gene is processed by a delicate piece of cellular machinery known as a spliceosome, which strips out all the introns and joins the exons together. Sometimes, perhaps because of signals from the introns that have yet to be identified, certain exons are skipped, and a different protein is made. The ability to make different proteins from the same gene is known as alternative splicing. The consortium's biologists say that alternative splicing is more common in human cells than in the fly or worm and that the full set of human proteins could be five times as large as the worm's.

Another possible source of extra complexity is that human proteins have sugars and other chemical groups attached to them after synthesis.



There's a different explanation of human complexity, which is simply that **the new low-ball figure of human genes derived by Celera and consortium is a gross undercount.** Dr. William Haseltine, president of Human Genome Sciences, has long maintained that there are 120,000 or so human genes. ... Dr. Haseltine ... remains unshaken in his estimate of 100,000 to 120,000 genes. He said last week that his company had captured and sequenced 90,000 full-length genes, from which all alternative splice forms and other usual sources of confusion have been removed. He has made and tested the proteins from 10,000 of these genes. The consortium and Celera have both arrived at the same low number because both are using the same faulty methods, in his view. ... Dr. Haseltine notes that the gene-finding methods used by the two teams depend in part on looking for genes like those already known, a procedure that may well miss radically different types of genes. His own method, capturing the genes produced by variety of human cell types, is one that Dr. Venter says in his paper is the ultimate method of counting human genes. ... Dr. Eric S. Lander of the Whitehead Institute last week challenged Dr. Haseltine to make public all the genes he had found in a 1 percent region of the genome and let others assess his claim. ... Dr. Haseltine said yesterday that he was contemplating the best way to respond and that he was "planning to do so in one form or another, in the open literature."

Turning from genes to chromosomes, one of the most interesting discoveries in this week's papers concerns segmental duplications, or the copying of whole blocks of genes from one chromosome to the other. These block transfers are so extensive that they seem to have been a major evolutionary factor in the genome's present size and architecture. They may arise because of a protective mechanism in which the cell reinserts broken-off fragments of DNA back into the chromosomes.

In Celera's genome article, Dr. Venter presents a table showing how often blocks of similar genes in the same order can be found throughout the genome. Chromosome 19 seems the biggest borrower, or maybe lender, with blocks of genes shared with 16 other chromosomes. ... Segmental duplication is an important source of innovation because the copied block of genes is free to develop new functions. ...

Celera ordered the world's most powerful civilian computer to calculate how to assemble its

### **27 million 500-base pair fragments into an entire genome.**

Its rival, the public consortium of academic centers, felt no need for a massive computer and assembly program because its genome decoding strategy didn't require one. But a computational biologist at the University of California, Santa Cruz, whose supervisor had been asked to help identify genes, realized the genome had to be assembled before gene identification could begin. In four weeks Jim Kent wrote an assembly program that put the consortium's jumble of DNA fragments into coherent order. It was this assembled sequence on which most of the consortium's genome analysis is based. Mr. Kent also wrote a browser, a program that aligns the known genes and other interpretive

information in tracks above the actual genome sequence. Anyone wanting to take a tour of the human genome, with Mr. Kent's browser as their guide, can do so at [genome.ucsc.edu](http://genome.ucsc.edu). ...

One of the most intriguing hints that new biology may be discovered in the genome comes from an initial survey of the mouse genome, which Celera said this week it had assembled. Laying the mouse genome sequence over the human sequence is extremely revealing because most of the DNA has diverged in the 100 million years since mouse and man last shared a common ancestor. The DNA regions that are similar between the two species are those important enough to have been conserved. At a stroke, almost all the genes fall out as noticeably similar. So too do many of the control regions of DNA that precede the genes.

And Dr. Craig Venter, president of Celera, has now stated that [there is a third category of similar DNA regions, which are not genes but are too extensive to be control regions. No one yet knows what the mystery regions are doing.](#) ...".

According to a 21 January 2003 article in [The New York Times](#) by Andrew Pollack:

"... RNA and DNA are strings of chemical units called bases that embody the genetic code. The bases are represented by the letters A, C, G and either T in DNA or U in RNA. The C base always binds to G. A binds only to T or U. So a single strand of DNA or RNA can bind to another strand that has the complementary bases. Under what is known as the central dogma of genetics, genes, which are the recipes for making proteins, are part of the DNA of the chromosomes. When a protein is to be made, the DNA is copied onto a corresponding piece of single-stranded RNA, known as messenger RNA, that delivers the recipe to the cell's protein-making machinery. Proteins make up most of a cell and perform most of its functions, including turning genes on and off.

But new evidence suggests that **some RNA is not merely the intermediary between DNA and protein, but the end product. Some huge stretches of DNA that do not contain protein-coding genes and have been considered "junk" actually hold the code for some of this RNA.** ...

... in addition to the DNA's containing the recipes for proteins, a lot more DNA was being copied into RNA. The recently deciphered mouse genome was found to have about twice as much in common with the human genome as could be accounted for by protein-coding genes. ... At least part of this overlap appears to be genes that produce RNA as their end product. What all of this RNA is doing is not clear ... But mounting evidence suggests that at least **some RNA is involved in regulating the way genes**

**are turned on or off.** ... the most radical view: that **RNA provides the command and control of cells.** Proteins ... are like bricks and beams. But the RNA determines whether those bricks and beams become office buildings or houses. **This RNA network ... provides the complexity that separates higher life forms from simpler ones. ..."**

... Some genes ... produce tiny RNA's, known as micro-RNA's or miRNA, which are about 21 to 23 bases, or letters, in length. The micro-RNA's bind to matching pieces of messenger RNA, turn it into a double strand and keep it from doing its job. The process effectively stifles the production of the corresponding protein. ...

... RNA interference, or RNAi ...[occurs when]... double-strand RNA ... would silence the gene corresponding to that RNA. ...

... small interfering RNA's or siRNA's ...[are]... pieces of about 21 to 23 bases ... Each short segment attracts a phalanx of enzymes. Together, they seek out messenger RNA that corresponds to the small RNA and destroy it. ...

... micro-RNA's appear to be formed as longer stretches of RNA that fold back on themselves like hairpins to create double strands. The sequence of bases is sort of like a palindrome, so that when the folding occurs, complementary bases line up, and the two arms of the hairpin stick together. ...

... small RNA's bind to chromosomes to shut down genes more permanently than can be done by stifling messenger RNA. ...

... viruses ... sometimes create double-strand RNA when they replicate ... Mammalian cells, confronted with long double-strand RNA, basically destroy themselves as a defense against pathogens. But two years ago scientists at the Max Planck Institute found that short double-strand RNA, again about 21 to 23 bases, would not set off the self-destructive response but would silence the corresponding gene. ...".

According to a 7 July 2001 BBC article by Helen Briggs: "... Two rival teams that cracked the human genome may have underestimated the number of human genes, according to a new computer analysis. Scientists in the United States claim

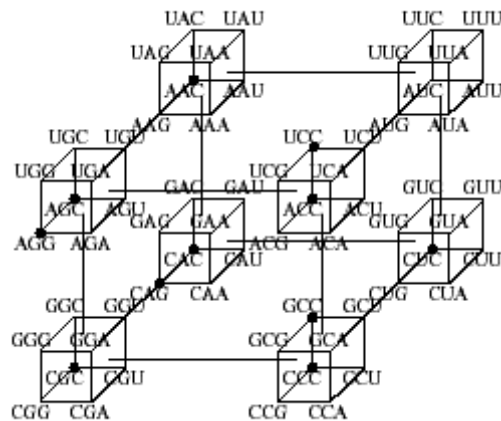
**humans are built from 66,000 genes,**

nearly twice as many as the current consensus. ... a ... team, based at Ohio State University, Columbus, Ohio, has reanalysed the raw data, using a supercomputer, and come up with a higher estimate for the number of human genes. "We ended up with a higher estimated number of genes than the other two teams because we compared 13

different gene databases to the DNA sequences in the draft genome produced by the Human Genome Project," said Bo Yuan of Ohio State University. ... The discrepancy seems to arise from the process used to analyse human genetic data. ... The genome is the complete list of coded instructions needed to make a person There are 3.1 billion letters in the DNA code in every one of the 100 trillion cells in the human body If all of the DNA in the human body were put end to end, it would reach to the Sun and back more than 600 times. ... Buried within these coded instructions are the genes - 'sentences' which hold the instructions for the proteins of which human tissue is made. The genes occupy only about a hundredth of the length of the huge string of DNA, broken up into the 46 chromosomes in every cell. To fish out the genes, which are hidden among the long continuous string of letters, scientists rely on genetic databases. ... The Ohio State University team says Celera's genome map, and particularly, the Human Genome Project map relied mainly on two databases to locate the genes. They used these two databases plus 11 others. "We used more experimental evidence in assembling our map, and that suggests that there are probably between 65,000 and 75,000 transcriptional units," said Dr Yuan. A transcriptional unit is a length of DNA that shows strong evidence of being a gene but which requires future verification. This is where the dispute arises. "Some researchers are unsettled by the certainty with which the Human Genome Consortium is presenting its lower gene count," said Fred Wright of Ohio State University. "In my view, the final number of genes - when it is known - will lie somewhere between their high of 40,000 and our value of 70,000." ... Arguments over how many genes it takes to build a human being look set to continue. A gene sweepstake set up by scientists attending the Cold Spring Harbor Genome Meetings in the United States is still taking entries. To date, there have been 165 bets, ranging from 27,462 to 153,478 human genes. So far, the money is on [61,710](#). ...".

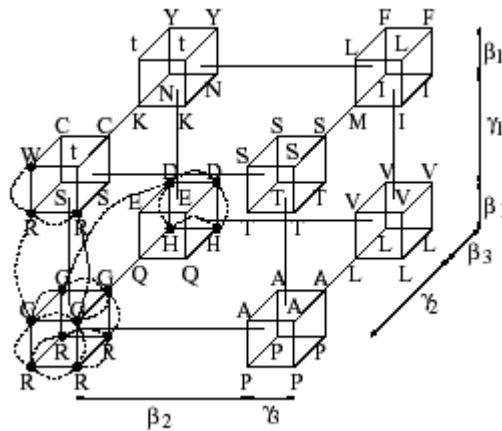
In [cond-mat/0204078](#), Jimenez-Montano, Mora-Basanez, and Poschel say:

"... the genetic code may be represented by a six-dimensional boolean hypercube



in which the codons (actually the code-words ...) occupy the [  $2^6 = 64$  ] vertices (nodes) in such a way that all kinship neighborhoods are correctly represented. This approach is a particular application to binary sequences of length six of the general concept of sequence-space, first introduced in coding theory by Hamming ...

... The six-dimensional hypercube ...

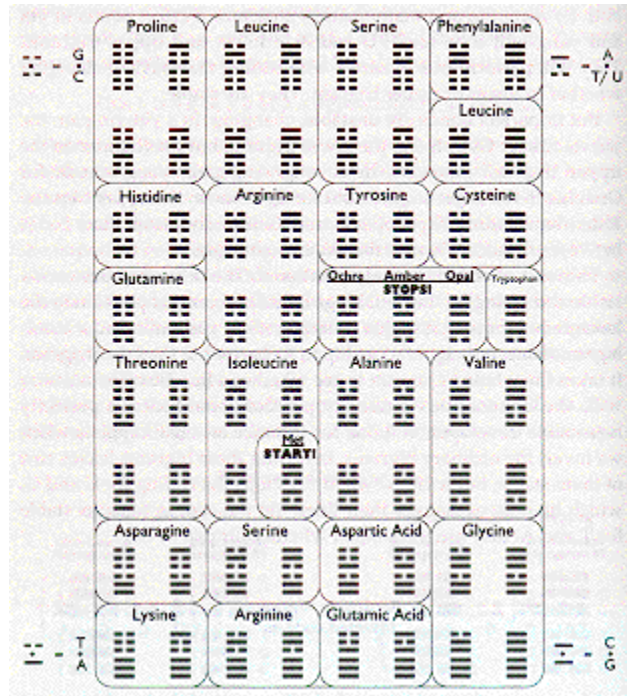


... Each node is labeled with the corresponding amino acid ...

... It is well known in the field of Genetic Algorithms that a proper encoding is crucial to the success of an algorithm. Furthermore in ... R. A. Caruana and J. D. Schaffer, Representation and hidden bias: Gray vs. binary coding for genetic algorithms, in: J. Laird (ed.), Proceedings of the Fifth International Conference on Machine Learning, Morgan Kauffman Publ. Inc., 153-161 (San Mateo, 1988). ... it is shown the superiority of [Gray](#) coding over binary coding for the performance of a genetic algorithm. As it was shown above the structure of the genetic code is precisely the structure of a [Gray](#) code. ...".

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Katya Walter has shown that the Fu Xi Earlier Heaven  
Ho Tu arrangement of the 64 hexagrams  
can represent the [DNA](#) genetic [code](#):



Since the DNA genetic code can be represented by 4 things taken 3 at a time, or  $(2 \times 2) \times (2 \times 2) \times (2 \times 2) = 64$ , and since the [I Ching](#) (which is based on 6 bars, each of which can be in 2 states - broken or unbroken) can be represented by 2 things taken 6 at a time, or  $2 \times 2 \times 2 \times 2 \times 2 \times 2 = 64$ , and since pairs of octonionic half-spinors of the Spin(0,8) [Clifford algebra Cl\(0,8\)](#) on which the [D4-D5-E6-E7 physics model](#) is based can be represented by 8 things taken 2 at a time, or  $(2 \times 2 \times 2) \times (2 \times 2 \times 2) = 64$ , the [genetic code](#), the [I Ching](#), and the [D4-D5-E6-E7 physics model](#) are all just different representations of the same [fundamental structure](#).

The [fundamental structure](#) of 8 trigrams can not only be extended to  $8 \times 8 = 2^6 = 64$  hexagrams, but also to 24-grams, of which there are  $8^8 = 2^{24} = 16,777,216$ . 24-grams are directly related to [Golay codes](#) and the [Leech lattice](#).

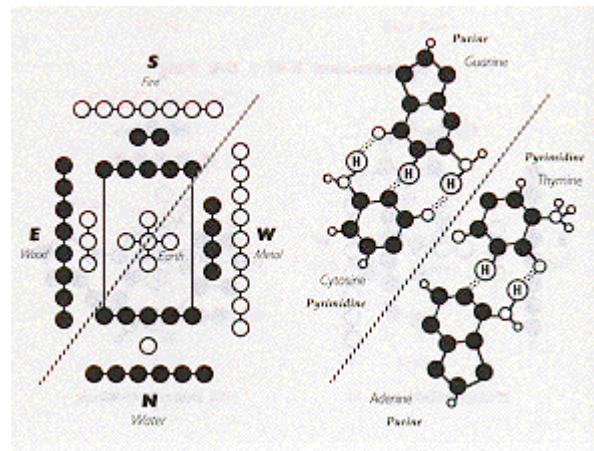
In that connection, the hexacode H6 is related to [Golay codes and the Leech lattice](#). The hexacode H6 can be used to construct [quantum-error-correcting codes](#) that are based on GF(4), and an [RNA code](#) is based on 4 nucleotides UGAC, taken 3 at a time. Katya Walter has shown that the I Ching representation of the DNA genetic code can be transformed in a natural way to an I Ching representation of the RNA genetic code.

The same [fundamental structure](#) is also shared by [Penrose tilings and musical sequences](#). Further, you can [represent genetic information](#) by [DNA sequence music \(215k wav\)](#).

Katya Walter has shown that the representation of the [DNA code](#) by Fu Xi's Ho Tu arrangement of the I Ching is not superficial. The 55 points of the Ho Tu diagram can be divided into 27 SouthEast points and 28 NorthWest points, if the central point is put into the NorthWest part.

The G-C base pair has 15 ring atoms and 12 other atoms, just as the SouthEast part has 15 even points and 12 odd points.

The T-A base pair has 15 ring atoms and 13 other atoms, just as the NorthWest part has 15 even points and 13 odd points.



If the central point is allowed to remain central, and represent a U(1) propagator phase, then both the SouthEast and NorthWest parts have 15 even points and 12 odd points, so that they represent the 15 generators of the Spin(6) that gives conformal gravity and the Higgs mechanism and the 12 generators of the SU(3)xSU(2)xU(1) standard model, that is, all the gauge bosons of the [D4-D5-E6-E7-E8 VoDou Physics model](#) spacetime.

Note that, to represent physical structures such as the DNA code and the D4-D5-E6-E7 model gauge bosons, the proper axis for the Ho Tu diagram is NorthEast-SouthWest, which is different from the North-South axis used to represent abstract Yin-Yang binary math structure.

Such a diagonal axis will be used in the Lo Shu diagram, which is more oriented to representations of physical structures, as opposed to abstract structures.

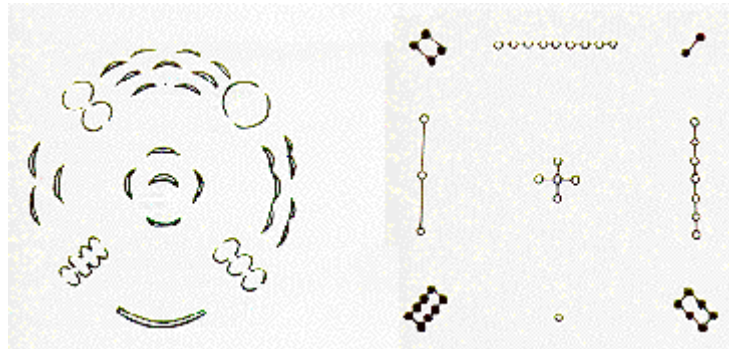
China's third emperor Huang Di started the present [Chinese calendar on 10 February 2697 BC](#).

About 4,200 years ago, when [Comet Hale-Bopp last appeared](#), [Yu \(father of the first emperor of the Xia dynasty\)](#) saw, rising from the Lo River, a turtle with markings of the

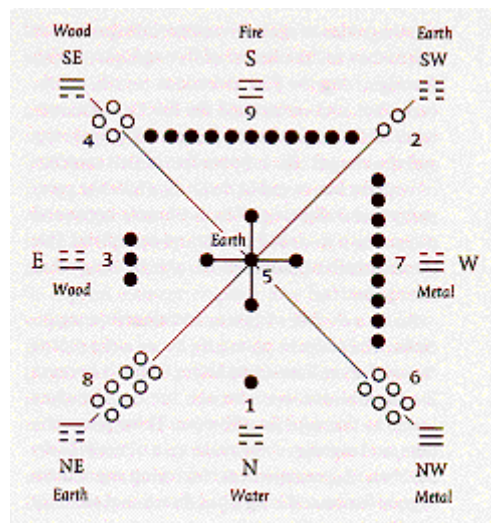


# Lo Shu,

shown here in its ancient and modern forms:



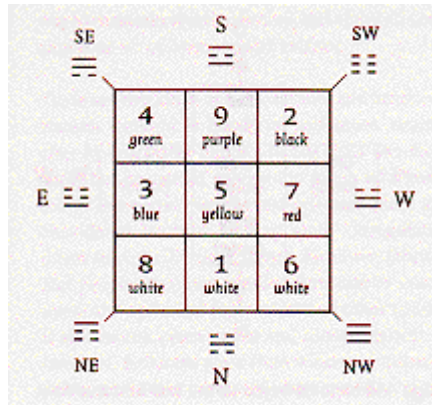
Yu interpreted the 4 directions and 4 diagonal directions of the Lo Shu in terms of the Later Heaven arrangement of the [8 trigrams of the I Ching](#):



Note that the Yu Later Heaven Lo Shu arrangement of the 8 trigrams is not very symmetrical with respect to abstract Yin-Yang binary structure, but is very symmetrical with respect to a NorthEast-SouthWest axis and the physical representation of the 5 Elements. The NorthEast-SouthWest axis is Earth-Earth-Earth, SouthEast and East are Wood, NorthWest and West are Metal, and South is Fire and North is Water.

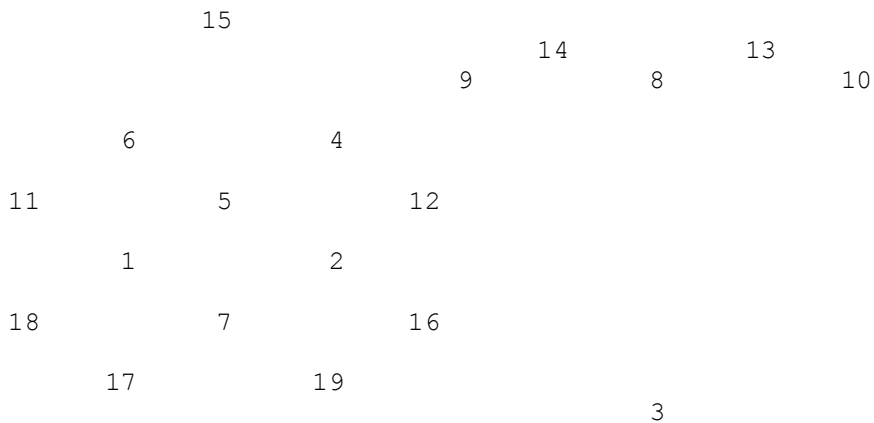
Although the Lo Shu is not very symmetrical with respect to abstract Yin-Yang binary structure, the Lo Shu diagram does have the interesting mathematical structure of a Magic Square:





In addition to Square tilings of the plane, there are [Hexagonal tilings](#).

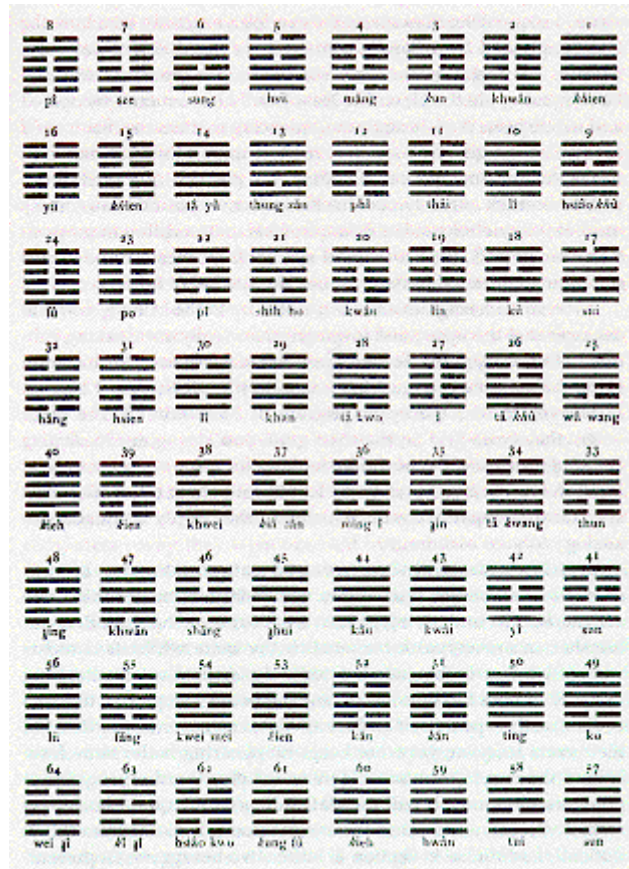
The only Magic Hexagon that exists also has central number 5:



There are 15 sums, 5 parallel to each of its 3 axes. Each sum is  $38 = 2 \times 19$ , and there are  $1+6+12 = 19$  cells.  $19 \times 19$  is the dimension of the lattice of a [WeiQi board](#).

Perhaps because of its lack of abstract Yin-Yang binary symmetry, the Later Heaven Lo Shu arrangement of the 8 trigrams did not lead Yu to make a corresponding arrangement of the 64 hexagrams.

It was not until about 3,100 years ago that [Wen-wang \(father of the founder of the Zhou dynasty\)](#) made a Lo Shu arrangement of the 64 hexagrams.



Since Wen-wang's son Wu-wang named him (posthumously) as the first emperor of the Zhou dynasty, Wen-wang is known as King Wen, and his arrangement of the 64 hexagrams often called the King Wen arrangement.

King Wen created his arrangement while imprisoned by the Shang emperor. It was not an arrangement to describe abstract principles, but to describe his life and how it could be useful in overthrowing the corrupt Shang emperor and setting up a better government. The 64 King Wen hexagrams are arranged in 32 dual pairs. For 28 of the pairs, one is the other turned upside down, so they make up 4 pairs of opposites. The 28 upside-down symmetric pairs have a similar symmetry to the 28-dimensional antisymmetric real 8x8 matrices that represent [Spin\(0,8\) of the D4-D5-E6-E7 physics model](#).

King Wen's arrangement is designed for life in our physical world, beginning with pure Yang, forward moving Heaven, and ending with a hexagram described by two characters that mean "not yet across (a river)", so that its ending is really also a beginning, just as in real life. Perhaps that is why the King Wen arrangement is the one most often seen in present-day I Ching books.

Another son of King Wen was the Duke of Zhou, the brother of King Wu (Wu-wang). When King Wen wrote about the 64 hexagrams, he wrote for each entire hexagram a Judgment. The Duke of Zhou wrote a poetic text,

the Line Text, for each hexagram Judgment. Each poem line corresponds to a hexagram line, and each whole poem goes with the Chinese characters for each hexagram Judgment.

Much later commentaries, such as the Ten Wings, have been added to the present-day I Ching books.

My opinion about such later commentaries is the same as that of Rosemary and Kerson Huang: "The poetic aspect of the I Ching, however, has been obscured by the Ten Wings. How can you enjoy poetry if every line is followed by government regulations on how to read it?"

[The King Wen I Ching sequence was used by Terence McKenna to construct his Timewave model of history.](#)

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Of course, it is possible to make other arrangements of the 8 trigrams and 64 hexagrams of the

[I Ching](#)



than the [Fu Xi](#) and [King Wen](#) arrangements.

The 8 trigrams can be arranged in  $8! = 40,320$  different orders. As well as ordering the 8 trigrams differently, you can pick subsets of the 8 trigrams. That can also be done in many ways:

there are  $2^8 = 256$  subsets of the 8 trigrams.

The number of subsets of the 8 trigrams is the dimension of the  $C1(0,8)$  [Clifford algebra](#) that is used in the [D4-D5-E6-E7 physics model](#) and is related to ordering the 8 trigrams by the [Clifford sequence](#) corresponding to the binary numbers from 0 through 7

You can arrange the 64 hexagrams in  $64!$  (about  $1.27 \times 10^{89}$ ) different orders.

As well as ordering the 64 hexagrams differently, you can pick subsets of the 64 hexagrams. That can also be done in many ways:

there are  $2^{64}$  (about  $1.844 \times 10^{19}$ ) subsets of the 64 hexagrams.

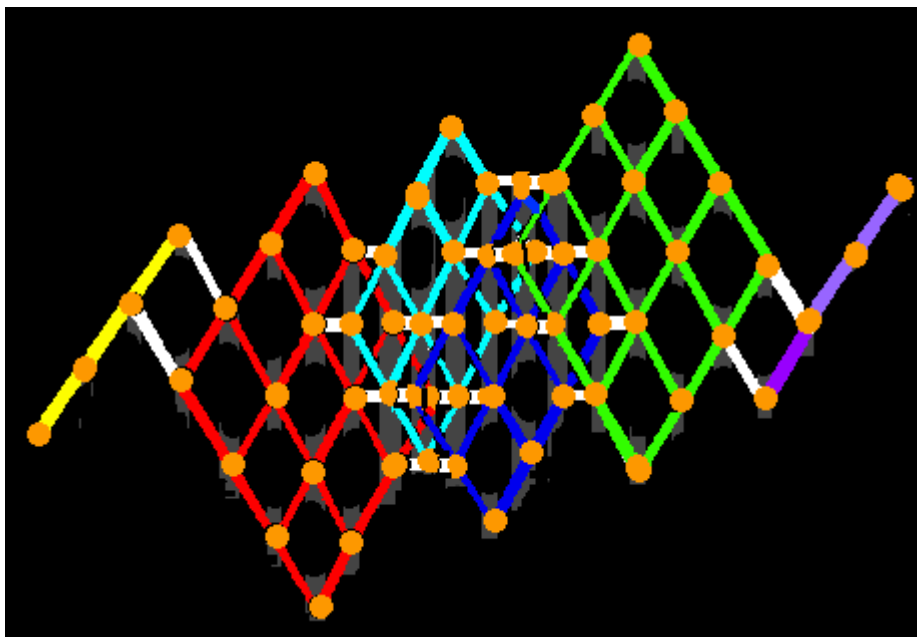
The number of subsets of the 64 hexagrams is useful in [estimating the Planck mass](#).

If you want more possibilities, consider the  $(2^{64})!$  possible orderings of all  $2^{64}$  subsets of the 64 hexagrams.

If you want still more, consider the possible orderings within each of the  $2^{64}$  subsets of the 64 hexagrams.

The ordering of the [64 hexagrams in the HuangLao Daoist Mawangdui Silk Text](#) may be related to historical events of the time period from 613 BC (Emperor Zhuang of Chu) to the time the manuscript was copied, probably about 202-195 BC (Emperor Liu Bang of Han).

A natural ordering of the 64 hexagrams is the [I Ching lattice of Billy Culver](#)



in which the 64 hexagrams are in groups of  $4 + 16 + (12+12) + 16 + 4 = 4 + 16 + 24 + 16 + 4 = 64$  This can be seen as a 4-fold expansion of the

1 4 6 4 1 level of the [Su Meru triangle](#).

---

Another order is based on the 1 6 15 20 15 6 1 level, with  $2^6 = 64$  elements, of the [Su Meru triangle](#):

(Here, the hexagrams are denoted by numbers representing them in the binary Fu Xi Earlier Heaven sequence, as binary numbers from 0 through 63, with broken lines denoted by - -.)

-----

0 1 hexagram with 0 - -

-----

1 2 4 8 16 32 6 hexagrams with 1 - -

-----

3 6 12 24 48

5 10 20 40

9 18 36 15 hexagrams with 2 - -

17 34

33

-----

7 14 28

11 22

13 26

19

21

25

===== 10+10 = 20 hexagrams with 3 - -

38 = 63 - 25

42 = 63 - 21

44 = 63 - 19

37 50 = 63 - 13

41 52 = 63 - 11

35 49 56 = 63 - 7

-----

30 = 63 - 33

29	46	=	63	-	17						
27	45	54	=	63	-	9	15 hexagrams with 4	- -			
23	43	53	58	=	63	-	5				
15	39	51	57	60	=	63	-	3			
-----											
31	47	55	59	61	62	=	63	-	1	6 hexagrams with 5	- -
-----											
			63	=	63	-	0	1 hexagram with 6	- -		
-----											

---

Still another interesting order for the hexagrams uses the order of this [8x8 Magic Square](#) whose sum is 260. It is constructed by writing the numbers 1...64 in sequence and then reversing the order of the green entries:

64	2	3	61	60	6	7	8
9	55	54	12	13	51	50	16
17	47	46	20	21	43	42	24
40	26	27	37	36	30	31	32
32	34	35	29	28	38	39	25
41	23	22	44	45	19	18	48
49	15	14	52	53	11	10	56
8	58	59	5	4	62	63	1

Since  $8 \times 8 = 64 = 4 \times 4 \times 4$  is both a square and a cube (the smallest such number greater than 1) you can use the same numbers and a similar method to construct a 4x4x4 Magic Cube with sum 130.

Here is such a cube as constructed by [Meredith Houlton](#):

1	63	62	4
60	6	7	57
56	10	11	53
13	51	50	16
48	18	19	45
21	43	42	24
25	39	38	28
36	30	31	33
32	34	35	29
37	27	26	40
41	23	22	44
20	46	47	17
49	15	14	52
12	54	55	9
8	58	59	5
61	3	2	64

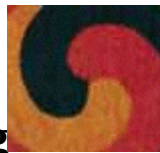
The sum of the 8x8 [Magic Square](#), 260, is twice the sum (130) of the 4x4x4 Magic Cube.

The [Maya](#) calendar uses a [period of 260 days, the Tzolkin](#), as well as a [period of 365 days, the Haab](#).

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A version of the

## Tai Hsuan Ching



was written by Yang Hsiung, who lived from about 53 BC to about 18 AD.

As the I Ching is based on hexagrams of binary lines, for a total of  $2 \times 2 \times 2 \times 2 \times 2 \times 2 = 8 \times 8 = 64$  hexagrams, the Tai Hsuan Ching is based on tetragrams of ternary lines, for a total of  $3 \times 3 \times 3 \times 3 = 9 \times 9 = 81$  tetragrams.

It seems to me as though [Vedic divination](#) and Tai Shuan Ching are based on the [Triality](#) aspect of the 256-dimensional  $Cl(8)$  [Clifford algebra](#) of [IFA](#), while I Ching is based on the 64-dimensional  $Cl(6)$  [Clifford subalgebra](#) of the  $Cl(8)$  of [IFA](#).

The progression from the I Ching to the Tai Hsuan Ching is similar to a number of things:

- Duchamp changed from [8 Malic Moulds](#) to [9 Malic Moulds](#);
- the [Hermetic Ogdoad progressed to the Ennead](#);
- 45-dimensional D4 progresses to E6 in the [D4-D5-E6-E7-E8 VoDou Physics model](#) (45 is the total number of the I Ching Magic Square and the 27-dimensional representation of E6 is like the 27x27 Magic Square version of the Tai Hsuan Ching Magic Cube.);
- the [8 Immortals plus Lao Zi are 9](#);
- my [Lo Pan](#) contains the 8 trigrams of the I Ching, and references to the 9 Moving Stars of the Big Dipper;
- [Plato's Timaeus](#) described cosmogony and music with both powers of 2 and of 3;
- [Chinese Buddhism increased the original 16 Lohan to 18 Lohan](#);
- [the 9x9 = 81 hand symbols of Ninja Kuji-in](#).

The numbers shown in the arrangement below are the ternary numbers plus 1, as the ternary numbers go from 0 to 80 instead of from 1 to 81.

TI			JEN			T' IEN		
73 CHING	64 CHEN	55 CHIEN	46 KUO	37 TSI	28 KENG	19 TSUN	10 HSIEN	1 CH'UN
74	65	56	47	38	29	20	11	2
75	66	57	48	39	30	21	12	3
76	67	58	49	40	31	22	13	4
77	68	59	50	41	32	23	14	5
78	69	60	51	42	33	24	15	6
79	70	61	52	43	34	25	16	7
80	71	62	53	44	35	26	17	8
81	72	63	54	45	36	27	18	9

The 81 Tetragrams, arranged in T'ien.



The ternary number arrangement is similar to the [Fu Xi binary number arrangement](#) of the I Ching.

The 81 tetragrams correspond to the 81 verses of the [Tao Te Ching](#).

The Tai Hsuan Ching may be at least as old as the [King Wen arrangement](#) of the [I Ching](#), since such tetragrams have been found on Shang and Zhou dynasty oracle bones.

To construct the Tai Hsuan Ching, start with the 3x3 I Ching [Magic Square](#)

4	9	2
3	5	7
8	1	6

whose central number, 5, is also central in the sequence 1,2,3,4, 5, 6,7,8,9 which sequence corresponds to the [octonions](#) 1,i,j,k, 0, E,I,J,K

whose total number for each line is 15, the dimension of the largest [Hopf fibration](#) and the dimension of the imaginary [sedenions](#).

If you take into account the direction in which you add each of the 8 ways, and add all directed ways together you get a total of  $16 \times 15 = 240$  which is the number of vertices of a [Witting polytope](#).

The total of all 9 numbers is 45, the dimension of the D5 [Lie algebra](#) Spin(10) that is used in the [D4-D5-E6-E7 physics model](#) in which the D4 Spin(8) subgroup of Spin(10) corresponds to 28 bivector gauge bosons and the 16-dimensional homogeneous space Spin(10) / Spin(8)xU(1) corresponds to an 8-dimensional complex domain whose Shilov boundary is  $RP1 \times S7$  corresponding to an 8-dimensional spacetime.

Notice that the 3x3 Magic Square gives the gauge bosons and the spacetime of the [D4-D5-E6-E7 physics model](#) but does not contain the spinor fermions.

The [3 generations of spinor fermions](#) correspond to a [Lie Algebra Magic Square](#).

The Tai Hsuan Ching construction will give us the spinor fermions, and therefore corresponds to the complete [D4-D5-E6-E7 physics model](#).

To construct the Tai Hsaun Ching, consider the Magic Square sequence as a line 3 8 4 9 5 1 6 2 7 with central 5 and opposite pairs at equal distances.

If you try to make that, or a multiple of it, into a 9x9 Magic Square whose central number is the central number 41 of  $9 \times 9 = 81 = 40+1+40$ , you will fail because 41 is not a multiple of 5.

However, since  $365 = 5 \times 73$  is the central number of  $729 = 364+1+364$ , you can make a  $9 \times 9 \times 9$  [Magic Cube](#) with  $9 \times 9 \times 9 = 729$  entries, each  $9 \times 9$  square of which is a Magic Square. The [Magic Cube](#) of the Tai Hsaun Ching gives the same sum for all lines parallel to an edge, and for all diagonals containing the central entry.

The central number of the [Magic Cube](#), 365, the [period of a Maya Haab](#).

The total number for each line is  $3,285 = 219 \times 15$ .  
The total of all numbers is  $266,085 = 5,913 \times 45$ .

Since 729 is the smallest odd number greater than 1 that is both a cubic number and a square number, the 729 entries of the  $9 \times 9 \times 9$  [Magic Cube](#) with central entry 365 can be rearranged to form a  $27 \times 27$  Magic Square with 729 entries and central entry 365.

$27 = 3 \times 3 \times 3 = 13+1+13$  is a cubic number with central number 14, and there is a [3x3x3 Magic Cube](#) with central entry 14 (14 is the dimension of the exceptional [Lie algebra G2](#)) and sum 42:

10	24	8	26	1	15	6	17	19
23	7	12	3	14	25	16	21	5
9	11	22	13	27	2	20	4	18

The lowest dimensional non-trivial representation of the [Lie algebra E6](#) is 27-dimensional, corresponding to the 27-dimensional [Jordan algebra](#) of [3x3 Hermitian octonionic matrices](#).

E6 is the 78-dimensional Lie algebra that is used in the [D4-D5-E6-E7 physics model](#) in which the 32-dimensional homogeneous space E6 / Spin(10)xU(1) corresponds to a 16-dimensional complex domain whose Shilov boundary is two copies of  $RP^1 \times S^7$  corresponding to Spin(8) spinors, representing 8 fermion particles and 8 fermion antiparticles.

All 4 components of the [D4-D5-E6-E7 model](#), arising from the 4 fundamental representations of Spin(8), are contained within E6:

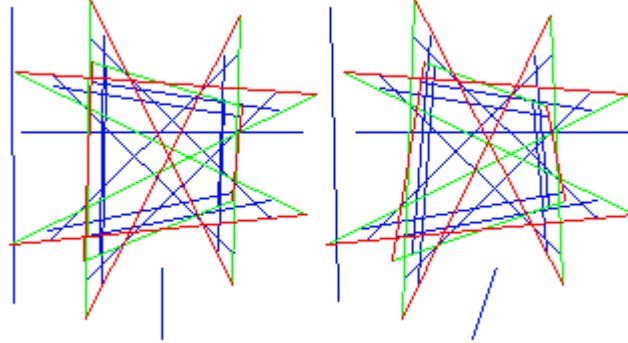
8 half-spinor fermion particles;  
8 half-spinor fermion antiparticles;  
8-dimensional spacetime

(4 Physical Spacetime dimensions and  
4 Internal Symmetry dimensions);

and 28 gauge bosons

(12 for the Standard Model,  
15 for Conformal Gravity and the Higgs Mechanism, and  
1 for propagator phase).

The Lie algebra E6 is  $72+6 = 78$ -dimensional,  
 and has Weyl group of order  $72 \times 6! = 51,840$   
 which is the symmetry group of the 6-dimensional polytope  $2_21$   
 with 27 vertices and  $27+72$  faces  
 which is also the symmetry group of the 27 line configuration:



The 78 dimensions of E6 correspond to the [78 Tarot cards](#).

Since E6 as used in the [D4-D5-E6-E7 physics model](#) represents the two [half-spinor representations](#) of Spin(8), For Spin(n) up to  $n = 8$ , here are is their [Clifford algebra](#) structure as shown by the Yang Hui (Pascal) triangle and the dimensions of their [spinor representations](#)

n									Total Dimension	Spinor Dimension
0									$2^0 = 1 = 1 \times 1$	1
1									$2^1 = 2 = 1+1$	1
2									$2^2 = 4 = 2 \times 2$	$2 = 1+1$
3									$2^3 = 8 = 4+4$	2
4									$2^4 = 16 = 4 \times 4$	$4 = 2+2$
5									$2^5 = 32 = 16+16$	4
6									$2^6 = 64 = 8 \times 8$	$8 = 4+4$
7									$2^7 = 128 = 64+64$	8
8	1	8	28	56	70	56	28	8	$2^8 = 256 = 16 \times 16$	$16 = 8+8$

Since each row of the Yang Hui (Pascal) triangle corresponds to the graded structure of an exterior algebra with a wedge product, call each row a wedge string.

In this pattern, the 28 and the 8 for  $n = 8$  correspond to the 28 gauge bosons of the D4 Lie algebra and to the 8 spacetime (4 physical and 4 internal symmetry) dimensions that are added when you go to the D5 Lie algebra.

The  $8+8 = 16$  fermions that are added when you go to E6, corresponding to spinors, do not correspond to any single grade of the  $n = 8$  Clifford algebra with graded structure 1 8 28 56 70 56 28 8 1 but correspond to the entire Clifford algebra as a whole.

The total dimension of the Clifford algebra is given by the Yang Hui (Pascal) triangle pattern of binary expansion  $(1 + 1)^n$ , which corresponds to the number of vertices of a [hypercube](#) of dimension  $n$ .

The spinors of the Clifford algebra of dimension  $n$  are derived from the total matrix algebra of dimension  $2^n$  with pattern

```

n
0           1
1          2
2         4
3        8
4       16
5      32
6     64
7    128
8   256

```

This can be expanded to a pattern

```

n
0           1
1          2  1
2         4  2  1
3        8  4  2  1
4       16 8  4  2  1
5      32 16 8  4  2  1
6     64 32 16 8  4  2  1
7    128 64 32 16 8  4  2  1
8   256 128 64 32 16 8  4  2  1

```

in the same form as the Yang Hui (Pascal) triangle.

Call each row a spinor string.

For a given row in the binary  $(1+1)^n$  Yang Hui (Pascal) triangle the string product of a spinor string and a wedge string

$$(2^N, 2^{(N-1)}, 2^{(N-2)}, \dots, 2^{(N-J)}, \dots, 4, 2, 1)$$

$$(1, N, N(N-1)/2, \dots, N^k J^{(N-k)} / (k! (N-k)!) J, \dots, N(N-1)/2, N, 1)$$

gives the rows of the ternary  $(1+2)^n$  power of 3 triangle  $n$

0												$3^0 =$	1
1												$3^1 =$	3
2												$3^2 =$	9
3												$3^3 =$	27
4												$3^4 =$	81
5												$3^5 =$	243
6												$3^6 =$	729
7												$3^7 =$	2,187
8	256	1024	1792	1792	1120	448	112	16	1			$3^8 =$	6,561

Just as the binary  $(1+1)^n$  triangle corresponds to the I Ching, the ternary  $(1+2)^n$  triangle corresponds to the Tai Hsuan Ching. The ternary triangle also describes the [sub-hypercube structure of a hypercube](#).

The ternary power of 3 triangle is not only used in representations of the spinors in the [D4-D5-E6-E7 model](#), it was also by [Plato in describing cosmogony and music](#).

## **The 9x9x9 Magic Cube of the Tai Hsuan Ching**

has central entry 365, and  $365 = 73 \times 5$  is the whole number of days in a solar year. The corresponding [Maya](#) 365-day period is called the Haab.

The  $8 \times 8$  [Magic Square](#) and [4x4x4 Magic Cube](#) of the I Ching have sums 260 and  $130 = 260/2$ , and  $260 = 13 \times 5 \times 4$  is the number of days in a [Maya](#) Tzolkin.

The common period of the [Maya](#) Haab and Tzolkin is  $73 \times 5 \times 13 \times 4 = 18,980$  days or 52 Haab.

The synodic period of [Venus](#) is  $584 = 73 \times 8$ .

The common period of the [Maya](#) Haab and the synodic period of [Venus](#) is  $73 \times 5 \times 8 = 37,960$  days or 104 Haab.

The common period of the [Maya](#) Haab and Tzolkin and the synodic period of [Venus](#) is  $73 \times 5 \times 8 = 2,929$  days or 8 Haab.

Since the  $8 \times 8 = 4 \times 4 \times 4 = 64$ , and  $584 = 2 \times 260 + 64$ . the synodic period of [Venus](#) is naturally expressible in terms of the  $8 \times 8$  Magic Square and the  $4 \times 4 \times 4$  Magic Cube.

Here is the 9x9x9 Magic Cube:

**1**

543	179	616	252	689	397	33	470	106
107	544	180	617	244	690	398	34	471
472	108	545	172	618	245	691	399	35
36	473	100	546	173	619	246	692	400
401	28	474	101	547	174	620	247	693
685	402	29	475	102	548	175	621	248
249	686	403	30	476	103	549	176	613
614	250	687	404	31	477	104	541	177
178	615	251	688	405	32	469	105	542

---

**2**

97	534	170	607	324	680	388	24	461
462	98	535	171	608	316	681	389	25
26	463	99	536	163	609	317	682	390
391	27	464	91	537	164	610	318	683
684	392	19	465	92	538	165	611	319
320	676	393	20	466	93	539	166	612
604	321	677	394	21	467	94	540	167
168	605	322	678	395	22	468	95	532
533	169	606	323	679	396	23	460	96

---

### 3

452	88	525	242	598	315	671	379	15
16	453	89	526	243	599	307	672	380
381	17	454	90	527	235	600	308	673
674	382	18	455	82	528	236	601	309
310	675	383	10	456	83	529	237	602
603	311	667	384	11	457	84	530	238
239	595	312	668	385	12	458	85	531
523	240	596	313	669	386	13	459	86
87	524	241	597	314	670	387	14	451

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### 4

6	443	160	516	231	589	306	662	370
371	7	444	161	517	234	590	298	663
664	372	8	445	162	518	226	591	299
300	665	373	9	446	154	519	227	592
593	301	666	374	1	447	155	520	228
229	594	302	658	375	2	448	156	521
522	230	586	303	659	376	3	449	157
158	514	231	587	304	660	377	4	450
442	159	515	232	588	305	661	378	5

---

5

361	78	434	151	507	224	580	297	653
654	362	79	435	152	508	225	581	289
290	655	363	80	436	153	509	217	582
583	291	656	364	81	437	145	510	218
219	584	292	657	365	73	438	146	511
512	220	585	293	649	366	74	439	147
148	513	221	577	294	650	367	75	440
441	149	505	222	578	295	651	368	76
77	433	150	506	223	579	296	652	369

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6

725	352	69	425	142	498	215	571	288
280	726	353	70	426	143	499	216	572
573	281	727	354	71	427	144	500	208
209	574	282	728	355	72	428	136	501
502	210	575	283	729	356	64	429	137
138	503	211	576	284	721	357	65	430
431	139	504	212	568	285	722	358	66
67	432	140	496	213	569	286	723	359
360	68	424	141	497	214	570	287	724

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7

279	716	343	60	416	133	489	206	643
644	271	717	344	61	417	134	490	207
199	645	272	718	345	62	418	135	491
492	200	646	273	719	346	63	419	127
128	493	201	647	274	720	347	55	420
421	129	494	202	648	275	712	348	56
57	422	130	495	203	640	276	713	349
150	58	423	131	487	204	641	277	714
715	351	59	415	132	488	205	642	278

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8

634	270	707	334	51	407	124	561	197
198	635	262	708	335	52	408	125	562
563	190	636	263	709	336	53	409	126
118	564	191	637	264	710	337	54	410
411	119	565	192	638	265	711	338	46
47	412	120	566	193	639	266	703	339
340	48	413	121	567	194	631	267	704
705	341	49	414	122	559	195	632	268
269	706	342	50	406	123	560	196	633

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188 625 261 698 325 42 479 115 552  
 553 189 626 253 699 326 43 480 116  
 117 554 181 627 254 700 327 44 481  
 482 109 555 182 628 255 701 328 45  
 37 483 110 556 183 629 256 702 329  
 330 38 484 111 557 184 630 257 694  
 695 331 39 485 112 558 185 622 258  
 259 696 332 40 486 113 550 186 623  
 624 260 697 333 41 478 114 551 187

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## References:

Andrews, W. S., Magic Squares and Cubes (Dover 1960).

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The [I Ching web site of Chris Lofting](#), which has a lot of very interesting philosophical discussion.

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The [Tai Hsuan Ching website of Roger Clough](#) has a lot of interesting information about the Tai Hsuan Ching.

Michael Nylan and Nathan Sivin have [a web page with their 1987 \(revised 1995\) article entitled The First Neo-Confucianism An Introduction to Yang Hsiung's "Canon Of Supreme Mystery" \(Tai Hsuan Ching, Ca. 4 B.C.\)](#).

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**THE HEXAGRAMS OF THE YI JING  
ON THE QABALISTIC  
TREE OF LIFE**

**DERIVED FROM CROWLEY'S  
ATTRIBUTION OF FU-XI'S  
TRIGRAMS**

**MAP OF THE COINS OF GE YUAN  
BY**

**MARCELO RAMOS MOTTA<sup>2</sup>**

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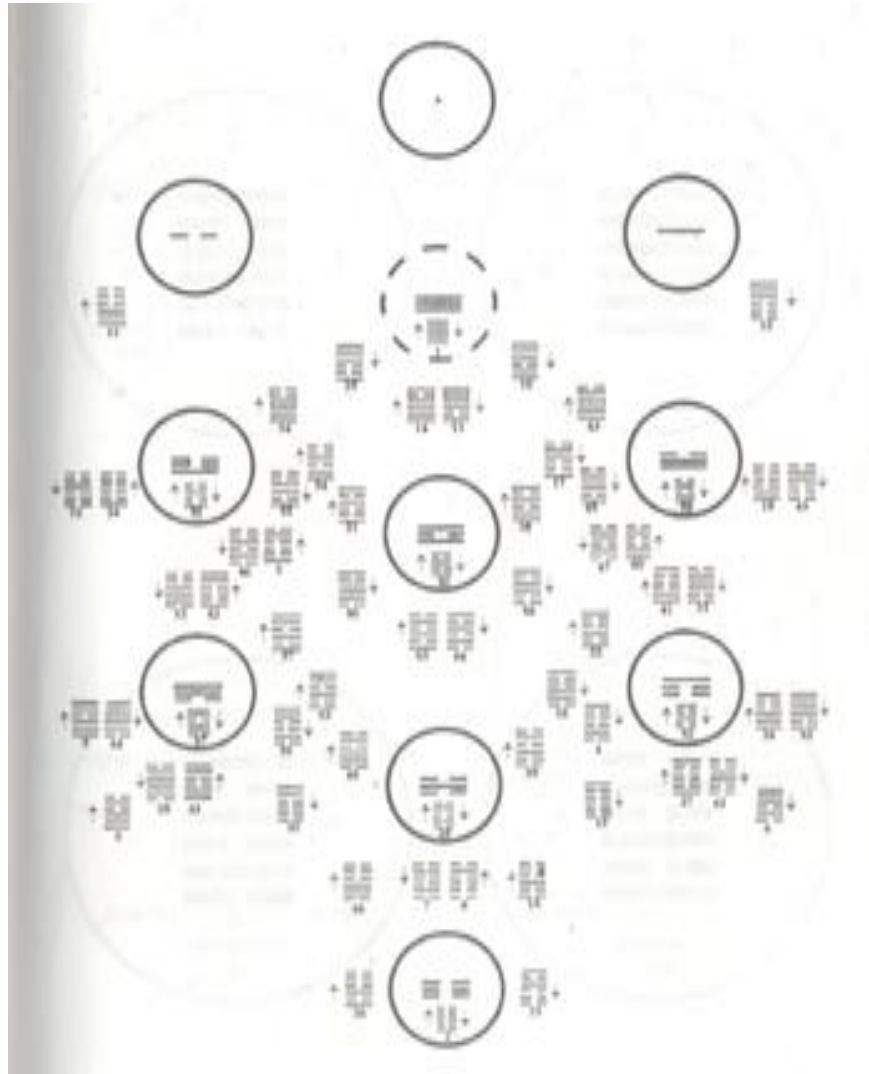
<sup>2</sup> Shi Yi Chien is considered lost by all lineages of the A.'A.'. with the possible exception of Motta's. In the Chinese Equinox, Motta claims the document has been identified and will be eventually published. This never came to be. But in Ray Eales 'Red Equinox,' this document is found, which is a perfect resemblance to what is described. Though we in our lineage make claim to some profound restorations, Motta has the distinction of being the first to do this work.

# Concerning the Coins of the Ge Yuan

On the Autumnal Equinox of 1980 e.v., in the span of a day and an evening, Marcelo Motta took to a concentrated effort to respond to a call of inspiration from what seems by the account of his students, a state of Samadhi. He quietly took to his private room and secluded himself off from his housemates, not leaving his room for any reason. When he emerged from this work, he had with him the Map of the “Coins of the Ge Yuan.” He had reconciled the trigrams of Fu Xi with the Qabalistic Tree-of-Life utilizing Frater Perdurabo's attributions. This can certainly be seen as an illuminated addition to the Sepher Sephiroth and a method of divination equilibrating the ancient Chinese wisdom of the Yi Jing. As well, this provides for as a wonderful addition to the Thelemic Qabala.

It is suggested that one make coins from the diagrams provided and shuffle the coins, tossing them forward in a manner of ones own device. Then lay these upon a diagram of the Tree and begin your divination. Motta suggested the one would then be working in the method of the Yellow, White and Black Schools of the Great White Brotherhood. Certainly, Crowley's equilibration of the Yi Jing with the Tarot demonstrates the White and Yellow schools. More than likely the fact that the trigrams were made into coins is the reason for Motta suggesting the Black school, but no correlation for any of these three schools is found in any notes of Motta's known to be extant.

## MAP OF THE COINS:



### Editorial Note

The Dyad is represented on the Tree-of-Life as being composed of the seven Sephiroth below the Abyss. In this, Motta's restoration, we are provided with forty coins. Crowley remarks that there would be 128 figures that as the Grand Master Baphomet, he would "invent" in this projected work. 128 is twice 64, the number of Hexagrams in the Yi Jing. And so it may simply be that Crowley abandoned the production of Liber XLIX in deference to his translation of the Yi Jing.<sup>3</sup> But Motta's work here, represents a valuable contribution to the science of Thelema. For this reason, it is presented by the A.M.H.R.

<sup>3</sup> We also find this note in the Red Flame archives of the Cornelius lineage:

**SHIH YI, A Critical and Mnemonic Paraphrase of the Yi King**  
being The Equinox Volume III No.7, by Ko Yuen (Aleister Crowley)

Monthelema, H.Parsons Smith, Oceanside, CA, HB, 1971

Note: The original manuscript, or versions of the mnemonic verses of the Yi King (known as the Shih Yi), are located under a different entry. See YI KING.

**SHIH YI CHIEN (Liber XLIX - 49)**

Note: Crowley, "An account of the divine perfection illustrated by the seven-fold permutation of the Dyad." ... It is presumed that no copy survives.

# THE COINS THEMSELVES:

