



Mensionization Complementation

The Mathematics of Hermetic Alchemy

Conclusion

There is a *systematic order* we must follow in our *material world*, it is called *Reality*. *Reality* is the interactions of *oppositional dualities*. The mathematical bottom line in our universe is within the fact that *Harmonic* oppositional dualities govern our every move. Every (α) has a *complementary opposite* (β); it is through the harmonic interactions of the two opposites that one minute everything runs smooth and orderly, the next minute all *hell* breaks loose. These 180° changes are the way *Nature* operates.

Mathematically, the (α) and (β) form a *universal* oppositional duality, and all dualities follow a progression of the *exponential* (2^n) expansion where the *exponent* is the *dimensional* change that occurs within the expansion. The philosophical disciplines of *Hermetic Alchemy*, the *Eastern I-Ching*, and the *Kabbalah* are excellent examples of this exponential expansion.

Each discipline has a beginning *singularity* ($2^0 = 1$); the “*Prima Materia*” of the *Alchemists*, the “*T'ai Chi*” of *the I-Ching*, and “*Kether*” the Crown of the *Kabbalah*. Each discipline has a beginning *duality* ($2^1 = 2$); the *Volatile* (α) and *Fixed* (β) of the *Alchemists*, the (α) *Yang* and (β) *Yin* of the *I-Ching*, and the *sephirah* pair *Chokmah* and *Binah* of the *Kabbalah*. Each discipline also has a system of *Four Elements* ($2^2 = 4$); the *Fire*, *Earth*, *Air*, and *Water* of the *Alchemists*, the *Four Hsiang*, *bigrams* of the *I-Ching*, And the *Four Worlds Emanation*, *Creation*, *Formation*, and *Fabrication* of the *Kabbalah*. Note the doubling of the properties in these dimensional changes. The doubling of properties becomes very evident in fourth term of the expansion ($2^3 = 8$).

The entrance into the third dimension is the beginning of *different structural changes*. We began with one (1) property, the (ONE), whether it be a *singularity* or a *Deity*, advanced to two (2) properties (*complementary opposites*), and then advanced to *four properties* (*Four Elements*); *structurally*, we went from a *point* to a *line* to a *plane*.

The 3rd-dimension advances our structure to a *cubic* form. A cube is represented structurally by a 3-dimensional *Lattice-Datum* structure which has *eight octants* called *volume*. The *I-Ching* represents the octants by the *eight* trigrams. An exponent of *three* (3) in the (2ⁿ) expansion is called a *cardinal "Trinity."* It is the *x, zed, & y* of the 3-dimensions. It is through the harmonic complementations of the *cardinal Trinity*; the *scaffolds* for the new structures are put in place.

The First *three* (3) terms of the expansion, (2⁰ = 1), (2¹ = 2), and (2² = 4) are the *fundamental properties*, the basic *tenets*; they include the *singularity*, the *harmonic duality* (α, β) and the *Four Elements, Fire, Earth, Air, and Water*. These three stages of the progression are the *blueprint, foundation, and corner stone* of the structures. In each case we do not surpass *2- dimensions*, at this point; our units only contain *length and width*.

The (2³ = 8) exponent of this stage is *three* (3); we are adding a third dimensional unit of *height*. The *cardinal Trinity* again doubled our range of properties to investigate, we now have *eight* (8) properties to work with and manipulate. These *eight* (8) properties can be found within every aspect of our lives just as each of the other beginning properties of the sequence. This manuscript emphasizes the nature of the *Trinity* by spending a little extra time and effort on the *eight* (8) *Trigrams* of the *I-Ching* and the *eight* (8) *octants* of the *Lattice-Datum* in order to help establish a standardized system.

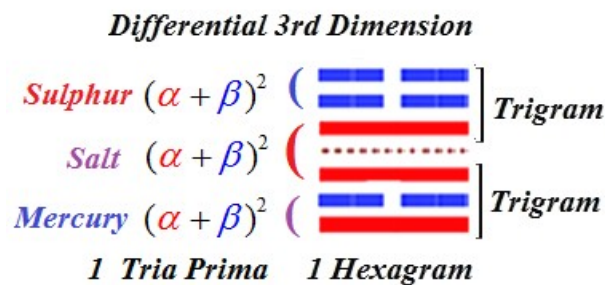
A *Trinity* creates a complete new level of understanding; it is the *Tria Prima* (*Sulphur, Salt, and Mercury*) of the *Alchemists*, the *Heaven, Earth, and Man* of the *I-Ching*, and the *triune Deity* of the *Kabbalists* and *Christians* along with their *Soul, Intellect and Mind* (*Soul, Body and Spirit*).

The *Trinity* is a mathematical result of the "first" derivative level of the 3-dimensional binomial $(\alpha + \beta)^3$, a composite oppositional duality where by the use of successive differentiation, the

3-dimensional *complementary* $(\alpha + \beta)^3$ duality is transformed into a *trinity* of *three* (3) *permutations* of 2-dimensional *lower level* complementations which are the ones listed in the previous paragraph. This transformation is caused by a derivative reduction of the “*cubed*” exponent to a “*squared*” exponent.

Reducing the exponent of a higher dimensional duality always creates permutations of lower level exponents which are used as inputs for the next successive derivative. This recursive relationship is shown by the fact that each member of the 2-dimensional *Tria Prima* operates within the realm of the *three* (3) permutation sets of 2- dimensional *Four Elements* which are inputs to the *hexagram*.

The next step is the formation of the *hexagram*. We enter the realm of the *second derivative* of $(\alpha + \beta)^3$. The second derivative forms the *six* 1-dimensional lines of the *hexagram*. The *hexagram* then uses the *Four Elements* as *inputs* in its structure.



The second successive derivative of the 3- dimensional duality is $6(\alpha + \beta)^1$ or the first *differential dimensional state* of $(\alpha + \beta)^3$. This state shows *six* (6) *permutations* of 1- dimensional α, β *bit type* dualities which holistically is termed a *hexagram* in *I-Ching* terminology. The *hexagram* is the “*Philosophical Engine*” or a 3- dimensional “*Engine*” that powers all higher *Differential Dimensions*. It is defined by the early *Alchemists* as a result of the interactions of the “*The Grand Elements*.” Its inner or interior complementations can be interpreted in manifold ways; from a *single line*, the *bigrams*, *trigrams*, a *ratio of two trigrams*, the *hexagram* as a whole, and arrangements of *hexagrams* in linear adjacent positions. It can be aligned with the properties of *DNA* and *RNA* bases in many ways.

The Kabbalah's *Tree of Life*, in its world of Formation contains the sephirah *Chesed*, *Geburah*, *Tiphereth*, *Netzach*, *Hod* and *Yesod*. These six (6) sephirah make up the *Kabbalistic Hexagram Zeir Anpin*. The *Fractal* nature of the *Zeir Anpin* exists throughout our universe.

In the *Western* philosophical system, the *hexagrams*, *bigrams* and *trigrams* are fairly new additions; they were first mentioned when *Leibniz*, in the late 17th to early 18th century introduced his binary math system to the European countries. *James Legge* published his sinological translations of the "*Sacred Books of the East*" in the late 19th century; this was a first recorded introduction of the lineal figures in the *United States*.

To summarize, the first four terms of the (2^n) sequence above are the *fundamental principles* of *Reality*. We experience these basic interactions every day of our lives.

At present the future is still a gray area, we have entered a *New Frontier* of human civilization, the *Quantum* era. Scientists are slowly making inroads, however we must never forget, "in all interactions within our material universe, the *further* we *diverge* from *mathematical Reality* the more we *converge* toward *fantasy* in our daily lives."

Take a break, relax, and contemplate what you have just learned, and then re-read the manuscript with a new perspective; the pieces of the puzzle of *reality* will more easily fit together.

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