

Transcript ~ The Dodecahedron

A Talk by Kirk Gradin
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This is from *The Voice of the Silence*:

Know, Conqueror of Sins, once that a Sowanee hath cross'd the seventh Path, all Nature thrills with joyous awe and feels subdued.

The silver star now twinkles out the news to the night-blossoms, the streamlet to the pebbles ripples out the tale; dark ocean-waves will roar it to the rocks surf-bound, scent-laden breezes sing it to the vales, and stately pines mysteriously whisper: "A Master has arisen, a Master Of The Day".

He standeth now like a white pillar to the west, upon whose face the rising Sun of thought eternal poureth forth its first most glorious waves. His mind, like a becalmed and boundless ocean, spreadeth out in shoreless space. He holdeth life and death in his strong hand.

Yea, He is mighty. The living power made free in him, that power which is Himself, can raise the tabernacle of illusion high above the gods, above great Brahm and Indra. *Now* he shall surely reach his great reward!

Shall he not use the gifts which it confers for his own rest and bliss, his well-earn'd weal and glory—he, the subduer of the great Delusion?

Nay, O thou candidate for Nature's hidden lore! If one would follow in the steps of holy Tathagata, those gifts and powers are not for Self.

Would'st thou thus dam the waters born on Sumeru? Shalt thou divert the stream for thine own sake, or send it back to its prime source along the crests of cycles?

If thou would'st have that stream of hard-earn'd knowledge, of Wisdom heaven-born, remain sweet running waters, thou should'st not leave it to become a stagnant pond.

Know, if of Amitabha, the "Boundless Age," thou would'st become co-worker, then must thou shed the light acquired, like to the *Bodhisattvas* twain, upon the span of all three worlds.

Know that the stream of superhuman knowledge and the Deva-Wisdom thou hast won, must, from thyself, the channel of Alaya, be poured forth into another bed.

Know, O Narjol, thou of the Secret Path, its pure fresh waters must be used to sweeter make the Ocean's bitter waves—that mighty sea of sorrow formed of the tears of men.

We give to you our very own Kirk Gradin.

Thank you, Monica, for that very fine reading. Greetings, everyone, and thanks to San Diego ULT and Jonathan and all the folks there for making this Aquarian series possible and inviting

me to give this talk. I noticed the other day that we're 12 days after November 17th and three times 12 days before January 4th. So, starting out with a little numerology that seems auspicious.

And this quote from—actually, it's from *Hermes*, but written by Helen Valborg:

The dodecahedron perfectly combines the wholeness and oneness of the sphere with the great sacrificial presence of the triads in the quaternary.

This quote and this article titled “The Dodecahedron” was first published in *Hermes* magazine in August of 1985, and it can now be found on theosophytrust.org. We would refer everyone to it as well as to several other resources for anyone who's interested in probing into this topic.

The Secret Doctrine, of course, Volume I, *Cosmogenesis*, has many references to the whole theme of sacred geometry and the metaphysical correlations that are so compelling and illuminating, as well as her *Transactions of the Blavatsky Lodge*, which, as most people know, is her verbal responses to students who had questions on the stanzas. Then there's other articles by her as well, like “The Five-Pointed and the Six-Pointed Star,” which also mentions the dodecahedron, and then Sri Raghavan's three volumes, *The Gupta Vidya*.

But in particular, we discovered this one article, which deals very directly with sacred geometry and this kind of unfolding as it applies both to the capacity for visualization and the breakthroughs that it has created in modern science, but also as it applies to the path, whether one is a beginner or advanced. The two articles by Helen, actually—both “The Dodecahedron” and “The Triangle”—will provide a far deeper and better doorway into the esoteric significance and the symbolism than what you will hear today.

The full quotation from Helen's article reads as follows of this particular sentence:

The dodecahedron combines so perfectly the wholeness and oneness of the sphere, which is its constant reference point, with the great sacrificial presence of the triads in the quaternary represented in each of its pentagonal faces, that its form could easily become the focus of one's deepest reverence and gratitude.

And this quote in its entirety really points to several keys to understanding the Pythagorean conception of sacred geometry that we would argue is being revived through the Theosophical movement. Through the writings of HP Blavatsky, Raghavan Iyer, and Helen Valborg, we now have explanations never before made available to humanity in the English language.

That is, that the mathematics of the soul and of spirituality—as brought from India by Pythagoras in the 5th century of the Common Era, actually before the Common Era, sorry, 5th century BCE—links the fundamental principles of geometric unfoldment from the point, the circle, and the line to the five Platonic solids, as given by Euclid, with the esoteric teachings of

the mystery schools of the ancient world, and with the triad of metaphysics, ethics, and metapsychology.

Sacred geometry in numbers is the foundation of what HPB calls in *The Secret Doctrine* the “mystery language.” It is the basis of Theosophical symbolism, once known, she says, to the truly wise of every nation. By means of this language, she wrote, the esoteric knowledge called *theosophia*, *brahma-vach*, or *gupta-vidya*—that of a continuous line of seers and adepts—was passed from one generation of initiates to the next over countless ages. When fully assimilated, it is also that “language of the soul,” wrote Robert Crosby, by which any being of any type or grade may be understood, communicated with, and uplifted.

Pythagorean geometry, as found explained in *The Secret Doctrine*, in *Hermes*, and *The Gupta Vidya*, is repeatedly shown to be the most eloquent expression of the mystic philosophy concerning cosmogenesis and anthropogenesis. It provides us with a supremely potent and graceful archetypal language by which to begin approaching and meditating upon the doctrine of emanation, of cosmic breath and differentiation, of the periodic emergence of the many from the one, and its return thereto.

At their culminating essence, the metaphysical principles and hierarchies represented by the dodecahedron—as well as all of the elements, actually, of Pythagorean geometry—are linked not only with the zodiac and the *nidanas*, but with the *avatars*, *Bodhisattvas*, and *nirmanakayas*, who both oversee and guide evolution, while repeatedly, subconsciously, and sacrificially incarnating at key cyclic junctures in order to assist, aid, and inspire all of sentient life.

Without assimilating this teaching, we're told, the mystery of life, of true creativity, of the correspondence between the microcosm and the macrocosm, and the true nature of the self will not be understood, wrote HPB, nor even closely approached. As the life of Pythagoras is given by Iamblichus and the *Golden Verses* themselves repeatedly remind us, access to this wisdom cannot be gained except under the strict demands, vows, and challenges of the spiritual path of discipleship.

This is one of the things that is suggested by Helen's quote—that, as we learn in regards to the school of Pythagoras, no one could apply for admittance to the school without having studied the *quadrivium*, considered the four divisions of mathematics. But the moral qualifications were far more demanding, for this was not merely an intellectual endeavor, but one of alchemical self-transformation. No aspect of one's life was exempt from uncompromising and exacting moral analysis. At every stage, the study required the unremitting love and service of others, of

nonviolence, discipline, and devotion, the activation of the metaphysical and moral imagination, and a canceling of the concerns and obsessions of personal egotism.

Moreover, a deep and abiding current of gratitude and reverence for the *guruparampara* chain, for celestial realities and true terrestrial teachers—especially those who had made the beginning outlines of this esoteric system available—was an absolute precondition. Again, we find this in the *Golden Verses* in the commentary by Hierocles, where he states that Pythagoras was said to have awakened the *tetractys* in the hearts of his truest students.

Less than 160 years after Pythagoras, Euclid, who is considered the father of geometry, codified 13 books on the system and released what Sir Thomas Heath called the greatest mathematical textbook of all time. Euclid's *Elements* is the oldest large-scale treatment of mathematics available to us and has been reprinted in more languages, nations, and editions than even the Bible. It covers the theorems and proofs of plane and solid geometry, of elementary number theory, incommensurability, what is commonly called the Pythagorean theorem, common divisors, and the construction of regular polygons and polyhedra.

Though it cannot be proved by extant documents, Heath, Thomas Taylor, and other insightful scholars of ancient Greek mathematics suggest that much, if not everything given in Euclid, was known and studied by the Pythagoreans. But because of its potency, during the time Pythagoras taught, the system could not be revealed except through initiation.

Plato was born roughly 70 years after Pythagoras and is still considered his greatest pupil. No doubt everyone is familiar with the famous quote which Plutarch ascribes to Plato, that "God geometrizes." In *The Republic*, Socrates also adds that the knowledge at which geometry aims is "knowledge of the eternal." When rightly approached, he taught, geometry provides a proper foundation for all true education and philosophy: "the turning around of the soul from darkness to light, from mere objects and opinions to essences and realities," and ultimately, to the contemplation of the divine sun, the *Agathon*, the Good in and of itself.

The Platonic dialogue known as the *Timaeus* is thought by scholars to have animated much of ancient Greek, medieval, and Renaissance architecture and esotericism. In it, the Pythagorean philosopher-statesman-mathematician Timaeus of Locri briefly describes the geometric and numeric manner by which the deity unfolds or differentiates the metaphysical patterns of the cosmic elements from a boundless rotating sphere to the 12-faced dodecahedron.

While an infinite number of polygons—that is, two-dimensional space enclosing a shape formed of equal lines and equal angles—is possible, in three dimensions, only five polyhedra are possible. A polyhedron is a three-dimensional space-enclosing shape in which all of the line

segments are equal. Each plane formed by the lines is equal to all the others in that shape, and all the angles at which the planes meet are all equal. This also means that all of the angles or vertices at which the lines meet in a polyhedron would touch an enclosing sphere and would be equidistant from the center of that sphere.

At a beginning level, we can see that while there is differentiation and multiplicity—each of the polyhedra being different than the others—still the principles of equality, justice, symmetry, balance, and uniformity are being universally maintained. There are many other fascinating aspects of the geometry of the five solids. For example, as shown in the lower diagram here, the hexahedron, or cube, is the inverse of the octahedron. That is, if you take the center point of each face of the cube and connect it with lines to the center point of all the other faces of the cube, you get the octahedron, and vice versa.

The same is true of the dodecahedron and the icosahedron; they are reciprocals of each other, while the tetrahedron, symbolizing fire, is the inverse or dual of itself. There are many other mathematical and geometrical aspects such as this which can be found detailed in many online sites and which are certainly worthwhile modes of investigation, but which we're not going to be going into detail into today. Instead, we're hoping, at least at an introductory level, to be pointing more to the symbolic and Theosophical correspondences.

For example, each of the polyhedra, as described in the *Timaeus*, corresponds to a cosmic element. The dodecahedron is said to encompass or synthesize the other four, symbolizing the whole or the fifth element called ether (or sometimes pronounced *aether*, with the *a* being sometimes not silent). HP Blavatsky explains that the ether of the dodecahedron in the esoteric or in the Hindu system—which she defines as the vehicle of primordial substance and omnipresent sound, *Fohatic* compassion, and divine thought or logoic (that is, pre-cosmic and cosmic ideation)—along with much else that is to be unfolded through, in part at least, through the rest of the talk.

One of the most common and perhaps obvious associations of the dodecahedron is that of the zodiac: the 12 faces of the dodecahedron corresponding to the 12 gods of the Greek, Babylonian, Egyptian, and other pantheons, and the division of the solar year into 12 months, also linked to the 24-hour clock. While modern astronomy traces the earliest known 12-fold division of the celestial belt to 5th or 6th century BCE Babylonia, HPB states that the divine knowledge associated with the zodiac, like that of geometry, predates the dawning of the human mind. She says it was passed to the forefathers of the Aryan Brahmins by the spiritual ancestors of our modern adepts and Mahatmas more than 18 million years ago.

Through these Sons of God, she says, born of *kriyashakti*, infant humanity got its first notions of all the arts and sciences, as well as of spiritual knowledge, and it is they who laid the first foundation stone of our most ancient civilizations. This host of *avatars* and *Bodhisattvas*, perfected in previous cycles of evolution, are spoken of as the Fifth Hierarchy, symbolized by the five-pointed star, and also represented by Prometheus in the Greek system, corresponding to the Kumaras, the mind-born sons of Brahma in Hindu mythology.

The word *Kumara*, HPB points out, is an anagram for *Makara*, the mythical sea dragon of wisdom associated with Capricorn, which is, of course, the 10th sign of the zodiac. The word *Makara* also refers to the two hands, each of five fingers, and also pointing to this idea that the five-pointed star is linked with the principle of human *manas*—that is, the human soul of self-conscious intelligence, choice, and responsibility, which as a ray of the divine mind is capable of awakening to omniscient knowledge and universal justice or compassion.

Of all the primary geometric shapes associated with the Platonic solids, the pentagram is the only one with angles greater than 90 degrees. Helen points this out as being representative of that capacity to open one's arms to include all other beings. HP Blavatsky points out that *Makara* is also found as an emblem on the banner of Kamadeva, linking the force of universal *eros*, kindness, and empathy for all—also associated with *Fohat*—with *mahat*, that is, divine ideation, which ushers the universe itself into being from non-being.

The harmonic series created by the geometry of the five-pointed star or pentagram has an ancient pedigree, shown to have been used extensively in Greek arts of all kinds. In the Renaissance, it came to be called the "divine proportion" by the mathematician Luca Pacioli, and was illustrated via Leonardo's drawing of the *Vitruvian Man* as being evident—a proportional series that's evident throughout the human form.

This proportional series has been of immense interest to a long line of scientists, mathematicians, geometers, artists, and architects, and is found in animal and plant forms as well. It is the same proportional relationship which undergirds the Fibonacci series and the logarithmic spiral, as famously found in the nautilus shell and the ammonite. We find it again, of course, in the pattern of scales on the rind of a pineapple, in the distribution of seed points on a pinecone, and on the face of a sunflower, in spiral galaxies, and in hurricane wind patterns.

No doubt harboring many other meanings unguessed, the five-pointed star was also the symbol of the Pythagorean Academy. In confirming the centrality of geometry to our understanding of the astronomical, visible cosmos, the 16th-century father of classical physics and observational astronomy, Galileo, stated the following:

The universe cannot be read until we have learned the language and become familiar with the characters in which it is written. It is written in mathematical language, and the letters are triangles, circles, and other geometrical figures, without which means it is humanly impossible to comprehend a single word.

Geometry is foundational to all of current humanity's most sophisticated and advanced technologies, from the Hadron Collider to the James Webb Telescope. In 2013, revolutionary new forms of mathematics on the very cutting edge of particle physics, associated with the collider, discovered what they call "positive geometries" outside of the space-time continuum. They're referred to as *amplituhedrons*, which reduce thousands of algebraic equations necessary to explain particle collision outcomes into simple formulas.

There's many remarkable videos of this online. If you Google Donald Hoffman and his recent papers, he and other theoretical physicists are attempting to show how such geometries may be one step towards apprehending a new mathematical science, which postulates the primacy of consciousness, out of which the foundations of both classical and quantum physics emerge.

Beyond the infinite utility of applied geometry to architecture, design, and the material sciences of every sort, in the late 19th century, HP Blavatsky affirmed the Pythagorean view that geometry is indeed a divine science. She called it the fifth key in a series of seven keys to universal esoteric language and symbology—a language so profoundly suited to expressing the mysteries of nature that, from the very beginning of human life in our round and globe, she wrote, the perfected heavenly men of our race used the language of geometry to pass divine knowledge to their pupils from one generation of wise men to the next.

Such is the mysterious power of geometrical and numeric symbolism, she says, that a few pages of geometrical signs and glyphs record the entire secret doctrine, the accumulated wisdom of the ages, whose cosmogony alone is the most stupendous and elaborate of all known systems, and which has occupied countless generations of initiated seers and prophets to set down and explain.

HPB thought that the circle was the starting point of every ancient cosmogony—a symbol of boundless space, abstract motion, and eternal duration, which she called the "incognizable deity." In the Proem, she offers the image of a white circle on a dull black background, whereas in the *Transactions of the Blavatsky Lodge*, she offers a black circle on a dull gray background as a starting image. Whether black, gray, or white, we are implored to imagine the circle or sphere without bounds, extending the imagination beyond its conceptual limits. How does one conceive of a circle whose center is everywhere and circumference is nowhere to be found?

She later follows with this seminal meditation:

Close your eyes and from your own consciousness of perception, try and think outward to the extremest limits in every direction. You'll find that equal lines or rays of perception extend out evenly in all directions so that the utmost effort of perception will terminate in the vault of a sphere. The limitation of this sphere will of necessity be a great circle and the direct rays of thought in any and every direction must be right line radii of the circle. This then must be, humanly speaking, the extremest all-embracing conception of the *Ain Soph* Manifest, which formulates itself as a geometrical figure, namely of a circle, with its elements of curved circumference and right line diameter divided into radii. Hence, the geometrical shape is the first recognizable means of connection between the *Ain Soph* and the intelligence of man.

Nameless, it has been given many names. In *Genesis*, it is referred to as the darkness on the face of the deep. The Sufi mystics called it *al-Haqq*, the Real. In Advaita Vedanta, it is the non-dual reality called *parabrahma* or *paravach*. *Para* in Sanskrit means "beyond" or "higher," and *vach* means "speech" or "voice." Like *parabrahma*, *paravach* refers to that primordial resonance which is beyond the emanating voice of the creative deity—beyond, in fact, we're told, an endless series of periodical universes. It is referred to in *The Voice of the Silence* on the opening page as *Nada*, both a Sanskrit and Senzar term meaning the soundless, unending sound. In *The Gupta Vidya*, it is linked with the *Om* of the Gayatri Mantram.

Celebration of the *Om* is the central thread of the spiritual path and of the quintessential Hermetic current. Celebration of hymns of praise to the *Om* is the axis around which the entire work of the Great Lodge of Mahatmas turns. It is a celebration on behalf of and among intrepid individuals who are willing to become men and women of meditation, consciously very aware of what the highest level of *Om* represents.

The essence of both wisdom and compassion, we're told, to the seer and adept, this self-existence is non-dual, absolute consciousness, an infinitude of absolute light, also called *satchitananda* in the *Upanishads*: truth, consciousness, bliss. It is the indivisible, all-pervading fire sought by the yogi in deepest *samadhi*. It is also entered, we're told, by every human being in deep, dreamless sleep, revitalizing and regenerating each soul, preparing it for another day.

In the classical Greek conception, what later became translated by the word *reason* was originally connected with *logos*, meaning not only word or speech, but also logic and *demiurgos*—the causal and creative origin of the cosmos, which renders divine thought manifest. Although HP Blavatsky summarizes the process of cosmic unfoldment in terms of three primary stages—the First, Second, and Third Logos—if we examine them closely, we begin to see both a ten-fold

and a twelve-fold logic appearing again and again, actually, as suggested by the Pythagorean triangle, the decad, and the dodecahedron.

In *The Secret Doctrine*, the Pythagorean *monas* is linked with the First Unmanifested Logos called "the germ that dwelleth in darkness"—the first cause, as distinguished from the causeless cause, a crucial distinction in esoteric philosophy. It is the infinitely non-dimensional pinnacle of the Pythagorean triangle within which all other points will arise and to which they will return.

In *Transactions*, HPB describes it as a potential white point in the black circle. Raghavan Iyer wrote of its initiatory function as triune: as pre-cosmic ideation, pre-cosmic substance, and potential pre-cosmic force—a three-in-one in a state of pristine, primordial unity. The First Logos is also correlated by HPB with Vasudhara of northern Buddhism, the synthesis of the wisdom and compassion transcending even the *Dhyanis*, called Adi-Buddha, the Supreme Buddha, who as the Lord of All Mysteries cannot manifest, but sends into the world of manifestation his heart, the Diamond Heart.

Adi-Buddha is also the term used to describe the essence of the Kalachakra Mandala, as first given in the West by the Dalai Lama in 1981 on behalf of world peace. Students of *The Secret Doctrine* have found that many key elements that are given in the Kalachakra also appear in Blavatsky's teaching and were elaborated in the 1975 cycle as well, pointing to that esoteric tradition of *theosophia* which precedes the historical Buddha. In her article on the mystery of the Buddha, she calls it, this First Logos, the primordial seed of all seeds, the *Mahavishya* or *Mahavishnu*, from which all the world's saviors, *avatars*, and *Bodhisattvas* have grown out.

The horizontal diameter line that seemingly divides the monad into two is also rich in symbolic meaning in esoteric philosophy. HPB describes it as simultaneous with the First Logos. It is a line without breadth or thickness, a symbol of primordial, indestructible matter, the geometric correlate of "divine, immaculate Mother Nature within the all-embracing infinitude." Called *mulaprakriti* in Sanskrit, it is the homogeneous, unmanifested essence of all levels of substance and form.

Every circle has an infinite number of diameter lines. If the dividing line is vertical, we have a 1 and a 0, or 10—the number of fulfillment, completion, and totality, as we see in the 10 dots of the Pythagorean *decad* and the 10 Sephiroth of *Kabbalah*. That is, the end is in the beginning. HPB points to this initial 1 and 0 as representing Adam Kadmon, the tenfold primordial man or *purusha*. She calls it the culmination of divine incarnations on earth, from which the whole universe proceeds and to which, she says, every atom in visible and invisible space is evolving around and towards it. So it represents that potentiality which is in all at one level.

The Second Logos is the manifested, where the pre-cosmic becomes cosmic. The vertical line of pure spirit becomes cosmic ideation, uniting at the nexus with the horizontal line of cosmic substance or *prakriti*. This is representative of the sacrificial descent of spirit into matter—not a stage distant in time, but an ever-present reality. As Krishna says in the *Bhagavad Gita*, the whole of nature is part of one universal sacrifice called *adiyajna*. This is why any action performed except in the spirit binds the actor.

This quote is very challenging and illuminating:

The first and earliest cross and circle into the formation of which enters the deity, symbolized by Vishnu, the eternal circle of boundless time, *Kala*, on whose plane lie crossways all the gods, creatures, and creations born in space and time.

In *The Secret Doctrine*, the Second Logos is also linked with Vajrasattva, born of fire and water, holder of the *vajra*, the indestructible perfection of discriminative wisdom and skillful means. So it's both *dhyana* and *jnana*, and *upaya*—that is, *upaya* is skillful means in northern Buddhism, the capacity to dispense the nurturing rain of *dharma* upon all beings. She says in *The Voice* that it is the full Mahatma merged with the Absolute.

Geometrically, both the horizontal and the vertical are needed in order to construct the upright equilateral triangle, the three-in-one. For the Pythagoreans, the triangle was the first true number, and the first perfect space-enclosing geometrical figure associated with *logos*. It signified right proportion, harmony, the resolution of dualities, knowledge, piety, and friendship.

In the oldest Grecian cosmology, the third principle binding matter and spirit was *eros*. *Eros* is, of course, not the winged Cupid, HPB points out, but divine universal love or absolute compassion. It corresponds to the *Maha-Karuna* of Buddhism, the Hindu Kamadeva, and the Tibetan *Fohat*, each of these having a deep and rich metaphysical meaning related to the "law of laws, compassion absolute," spoken of in *The Voice*. It is that active, sacrificial energy which makes of all seeming differentiation a living unity, which binds all life into one life.

Among the many levels of meaning of *Fohat* given in *The Secret Doctrine* is that of cosmic electricity, the bridge by which the ideas existing in divine thought are impressed on cosmic substance as the laws of nature—also referred to as the dynamic energy of cosmic ideation, the guiding power of all manifestation, and the thought divine transmitted and made manifest through the *Dhyana Chohans*.

In *The Secret Doctrine*, this formless three-in-one marks the dawn of the cosmic mind called *mahat*, said to be the combined luminous wisdom of countless suns, countless previous

manvantaras—the seed harvested from an infinite series of previous cycles, which holds *in potentia* all that will emerge in the current cosmic unfoldment. In the Theosophical conception, it is connected with the mysteries of the higher immortal triad of every human being, called *Atma-Buddhi-Manas*.

Manas, as we know, is that principle of self-conscious awareness which makes *buddhi* an active rather than a passive principle. It is that potentiality of the light of the *logos*, capable of conscious descent into and through the darkest realms, so to speak, of materiality. We're also given the Kabbalistic axiom that the deity is one because it is infinite, but it is triple because it is ever manifesting.

"By mystic transmutation," wrote HPB, "this three-in-one essence becomes the *tetractys*, the four." The *tetractys*, as we read in the *Golden Verses*, was the immortal witness by which the Pythagoreans swore their most sacred oaths. This aspect of this principle could be seen as corresponding to *pranidhana*, which is the great Bodhisattva vow found in the higher tetrad of *paramitas* in the Buddhist system of ten *paramitas*.

Conceptually and geometrically, there are a number of ways of visualizing this passage from three to four, of triangle to tetrad. Typically, the fourth point is understood as projecting itself outside the triangle at right angles to the center point and the plane of the originating triangle, and equidistant from each of the three points already established. The three cords projecting from the existing vertices to the new vertex are equal to the length of each side of the originating triangle.

So the triangle becomes the tetrahedron, the simplest possible and most structurally stable space-enclosing three-dimensional form. By this transmutation, one equilateral triangle becomes four equilateral triangles. In addition, the six edges of the tetrahedron plus the center point equals seven, which is one way of thinking about this hebdomadic, the sevenfold part of the music of the spheres. All of these stages also correlate with various levels of *vach*, which we're not really going into detail today, but it's one thing to keep in mind because it helps to disperse any kind of fixed idea that we may have in relation to the geometry.

Mirroring itself as above, so below, the tetrahedron becomes the *merkaba*, whose vertices delineate the eight corners of a cube. This tetrahedral lattice, by the way, is that of the purest diamonds, which is, as we know, the hardest substance known to human beings. Diamonds provide one of the most vivid confirmations of the Pythagorean teaching that perfectly harmonious, formless spiritual intelligences, descending through hierarchies and impressing substance on every plane, manifest in archetypal geometries in this way.

The diamonds are a potent metaphor for the fully awakened Bodhisattva known as Dorje Sempa, which literally means the diamond holder or diamond-soul. The *dorje* cuts through, we're told, all the veils of nature, all seeming opposites, including that of *nirvana* and *samsara*, ultimately, and manifests through a sevenfold stream of radiant knowledge solely for the benefit of suffering sentient beings.

In the pentagonal interlaced 72-degree rotation of that originating tetrahedron, the vertices of five interlaced tetrahedrons denote or specify the 20 vertices of the dodecahedron. So we see how those two shapes are connected. All of this is pointing to this fundamental mystical conception that in studying the profound associations of geometric logoc unfoldment, we're not only radically rethinking the origins of consciousness and of life, the mystery of creative emanation (or referred to as *kriyashakti*), and the activation of divine universal will through divine *eros* and so on—which are all aspects of our true nature, of the true self, and represent core aspects of what we would call the metapsychology of *theosophia* and its omnidirectional ethics.

In addition to all that, we're also attempting to gain some philosophical grasp of the prototypical fields of universal quiescent awareness and compassion that enlightened beings continuously inhabit, and the root sacrificial and creative function that they continually perform throughout the cosmos and on the hidden planes of nature.

Stepping back to an alternative sequence of unfoldment, just briefly, as mentioned, the tetrahedron is the only one of the five Platonic solids that is self-reciprocating. We have this quote, I think it's from Stanza III, that "the radiant essence becomes seven inside, seven outside." So it's like this self-reflection or self-mirroring, and that the six edges of the tetrahedron correspond to the diagonals of each face of the six-sided cube or hexahedron, which is another geometrical symbol of the seven and of tremendous multidimensional significance.

The cube is the sacrificial cross, a symbol of the divine unfolding itself into the sevenfold cross of matter, and of the initiate who crucifies the senses on behalf of the one life. From *The Secret Doctrine*, Volume II:

The phenomenal world receives its culmination and the reflex of all in man. Therefore, he is the mystic square in his metaphysical aspect, the *tetractys*, and becomes the cube on the creative plane. His symbol is the cube unfolded, and six becoming seven, three crossways, the female, and four vertically, and this is man, the culmination of the deity on earth, whose body is the cross of flesh on through and in which he is ever crucifying and putting to death the divine *logos* or his Higher Self.

Students of this teaching know that the seven Sephiroth of the *Kabbalah*, the seven primary gods of the Greek pantheon, correlate with the seven Dhyani Buddhas of this trans-Himalayan teaching, and that they are given as the seven *Dhyanis* as the root spiritual essences and agents of the divine mind, the seven-stringed lyre or lyre of Apollo, which further unfolds everything in the manifested universe according to karmic and cosmic law.

They are the pinnacle of vast hierarchies of beings who progressively differentiate into the hidden architecture of nature: the great chain of being, the seven cosmic elements, the seven kingdoms, and the seven principles of human nature—that is, all beings, matter, consciousness, and energy in every system. Without the seven *Dhyanis*, for HPB, neither the cosmos nor human nature can be understood.

This is particularly relevant to us in our time. For all human beings in the present period of evolution, spiritual growth consists in awakening noetic awareness of formless spiritual essences, a process of monastic maturation which requires precise apprehension of the different sets of *Dhyanis* and ancestors involved in the complex karmic heredity of humanity. This sevenfold host is also the archetypal essence of all cyclic time. They correspond to the seven days of creation found in the Hebrew Bible and in Hinduism, the seven globes, rounds, and races of Theosophical teaching, as well as the seven days of the week and the four times seven days of the lunar cycle.

When the divine eye is awakened, we're told, all cyclic activity is seen to be governed by the same celestial pattern linked to the *Dhyanis*. Geometrically, the three-dimensional unfoldment can be continued. A Kabbalistic axiom states: "The dodecahedron, the whole of 12 faces, lies concealed within the perfect cube." When the dodecahedron is constructed using the 12 edges of the cube, the sides of the dodecahedron are in golden ratio to the sides of the cube.

If one of the meanings of the sevenfold cube is that of the archetype of cyclic time and unfoldment of principles, how does that relate, we might ask, to the twelvefold division of the zodiac, which is also described as a scalable archetype of all cyclic time? In other words, applicable to not just the yearly cycle, but a cycle of precession, a cycle of manifestation for a planetary system, for the *manvantara*, the 12 great orders.

In *Isis Unveiled*, HPB gives what appears to be a hand-drawn diagram showing the order and arrangement of signs in the zodiac, and describes the overall scope of the zodiac as following the same archetypal pattern of involution and evolution that is found in the sevenfold cycle of rounds and races as given in *The Secret Doctrine*. If we overlay the zodiacal wheel in the order that's given in *Isis* with this spiraling cycle of root races that's given on page 300 of Book II of

The Secret Doctrine, we begin to see the logic. We'll just point to a few key points that make this correlation pretty clear, we'd say.

Aries, for example, as a fire sign at the inception point, is connected with the creative or emanating fire and light of the *logos*, which heralds each new dawn. It's also linked to the planet Mars as a sign of initiation and *Fohatic* rebirth and generation.

Skipping down to Virgo, HPB explains in *The Secret Doctrine* that the three Virgos shown in different locations on the Dendera zodiac offer an astronomical record of the first three divine dynasties who taught the third root race all the arts and sciences, as we've mentioned.

Whereas Libra at the bottom, symbolized by the scales, marks that turning point between descent and ascent, the equilibrium between spirit and matter. It is, of course, that crucial turning point where the individuated human *manas*, capable of linking heaven and earth, is awakened and thus embarking on this upward arc of self-conscious evolution through the cycle of reincarnations.

Whereas Scorpio in one of its meanings, wrote HPB, represents the fall into sin and matter, the separation of androgyne humanity into male and female, and the misuse of the desire principle associated with the fourth root race, Atlanteans.

If we carry the correspondence further, we notice that we are apparently also in a much larger Aquarian cycle than we may have guessed. This larger epoch encompasses roughly speaking the second sub-race of the fifth root race to at least the first sub-race of the sixth root race. With each sub-race lasting roughly 210,000 years, which is the number she gives in *The Secret Doctrine*, this would make it appear that we're in the midst of a much larger Aquarian cycle extending roughly a million years into the future.

In *The Key to Theosophy* and a series of articles written at the end of her life on the cusp of the precessional Aquarian Age, HP Blavatsky offered a compelling vision that in the face of the most barbaric, immoral, and criminal currents of modern materialistic civilization, a mystic tide of truth and love was being offered by the true geniuses and pathfinders of the human race by Masters of Wisdom. The outlines of the metaphysics of the compassionate cosmos in the ethics of universal brotherhood was being made available to humanity on behalf of all.

In the light of the sixth sub-race of the fifth root race, which was and is forming on the American continent, HPB describes that the sixth and seventh sub-races of the fifth would lead to the sixth root race, which would rise on a new continent that is now forming in what we call the Pacific Ocean. Seemingly distant from most human beings, for the adepts, this is tomorrow.

Joining with parts of the existing west coast of the Americas, the sixth root race would indeed be "Pacific"—a word meaning peacemaking, as she says there would be no more wars.

HP Blavatsky, the Masters in their letters, W. Q. Judge, and Crosby all restated this same prophecy: that the Theosophical movement involved torchbearers of truth who appear in the last 25 years of each century revealing these long-lost treasures only known in the mystery schools of antiquity, and that this is indeed a movement initiated by the Brotherhood of *Bodhisattvas* who watch over humanity from the beginning of our planetary system to set the foundations of future civilizations, to keep alive humanity's intuitions, and to gestate the embryo of a mini golden age in the midst of *Kali Yuga*.

This is the crucial part of the glad tidings *theosophia* as divine wisdom offers us, encouraging us to call forth our utmost altruism, our patient but energetic efforts, tolerance, and good cheer, so that as many souls as possible may participate in this upward arc.

That concludes my presentation. So, we have time for questions and discussion.

Well, what a presentation that was! So powerful, Kirk. I am just stunned, not just at the beautiful graphic work here, but just how in-depth you took us into geometry and cosmogenesis, and really giving a beautiful respect and love for number and geometry. Because they are forces, and they are living, and they are in us, and through us, and around us.

You did go a little bit into Helen Valborg's article, and I looked at that article. I would really love to—there's like a poem at the very end of the article. I don't know if you read it. I would like to read it, if you don't mind.

Sure, of course.

And I'm assuming that she wrote it, because there's no name under it. She's pretty good at citing people.

Yeah.

The cosmic dance is fiery, yet it moves within a sphere,
Pulsating with the drum of time around the center there.

The radiant flames encircle the moon on Shiva's brow,
And the mixtured glow intones the sacrificial vow.

"I, she, bring forth my sons, a youthful virgin race,
That all creatures yet to be may come to see their face."

I was thinking of the face of geometry.

And so saying, the fiery lord from point and sphere produced

The triads and the pentagons, their forms with light infused.
Thus did the cosmic plan unfold in 12-fold symmetry,
And thus did man obtain the form to match divinity.

So with that, we are open for questions. And thank you so much, Kirk. That was quite a gift to all of us.

Thank you for that reading, Desiree. That was a very nice capstone.

Well, you know, I think about numbers in terms of the mother-father quite a bit. I know that in some places, we consider the male the odd number, and the female the even number. But it seems like there's a certain time when they reverse roles. Because I've seen it in the—where we're talking about the mother-father in the poem—she, I think she has the male as the even number, and the female as the odd, and then somehow it flips.

But in any case, I'm trying to think if there is a similarity in terms of mother-father—and I'm talking about it just in terms of active and passive—that translates into geometric form. In other words, are there geometric forms that are feminine or passive versus active? I don't know, but I wonder if that translates.

Well, like we pointed out, the fundamental symbolism of the vertical and the horizontal that she says emerges simultaneously with the First Logos: the horizontal referring to *mulaprakriti* or Mother Nature, that homogeneous matter from which, and great ocean of space from which, all forms will emerge in any given cycle, and which is boundless. That is, that even the great cosmic cycle breathing forth this vast spectrum and kaleidoscope of beings and systems does not deplete in any way this—as you could say—the boundless fecundity and giving nature of that fundamental, you could call it female principle.

Then the vertical being connected with divine thought, which the two are one, right? So that's part of the idea that they're emerging from a common essence. But the vertical having to do with divine ideation, consciousness, and becoming cosmic ideation, and this active descent of spirit into matter for the benefit and so that the process of cosmic unfoldment can take place—the two having to work indissolubly together throughout the process.

Well, as you said, they're one.

Yeah, it's expanding itself.

Right, yes.

Yeah, that is—anyway, so very, very beautiful. And for some people, there's an affinity toward number. I think one of the reasons why—and not just number, but also geometric form—is

because there's something very intuitive about it. I can read a book and not understand it, but if you give me a picture along with it, I can see, "Okay, now I see the correlation," because there's something within the circle or the dodecahedron or just the angles.

They almost seem to propagate themselves. When you see them, you can see one, and yet suddenly there's multiplicity in it. It's interesting that you have a dodecahedron, but it's made up of 12 pentagrams.

Yeah.

So, the numbers and the lines and the vertices and the angles all seem to just speak to each other. It's just beautiful, the way the active and the passive have this interactive play in our reflective life.

Anyway, Jonathan's got a question or a comment. Go ahead, Jonathan.

Actually, it's me here, Ken.

Oh, hi!

Hi, Ken. Thank you, Kirk, for this amazing survey and deep dive into numbers and geometry and connect to the *logos* and all these different correlations.

I wanted to go back to one thing. I was a little bit mystified by the tetrahedron as you go from the three to then its fourth point, and then you said that in Stanza III, there's a quote of "the seven within and the seven without," and that the tetrahedron is the first self-reflective space-enclosing geometrical shape. I love that phrase, "the space-enclosing shapes." That gives me a different kind of conceptualization of the geometry.

So, how is it seven in and seven without? I didn't quite see that in my mind.

Well, the way I'm counting it, you have to kind of go back to the way that both HPB and the Masters actually talk about the interlaced triangles of the Theosophical Seal, for example.

Yes.

So, you know, we look at that and we say, "Oh, well, it's a six-pointed star. It's interlaced triangles, two triangles that would equal six, right?" But no, they say it's the symbol of the seven, because it includes the center point. The actual point gives it the six plus one is seven.

Yeah, yeah, yeah.

And so, that's kind of what I was working with. With the tetrahedron, you have six cords, six lines that create that shape. If you also count the center point, that gives you a seven. That's where the seven comes from—so it's seven within and seven without. And that's where it stands.

Right. Because if you then take the center point, right, of those spaces, you get another tetrahedron, but it's inverted.

I saw that in the picture and I thought, "Where does seven come forward in the picture you had of the tetrahedron with an inverted tetrahedron inside of it?" But now it makes sense if you count that center point.

Counting the center point, yeah, yeah. This is the other thing that you also find in *The Secret Doctrine*, that there's kind of a play with these geometric shapes and also with number and also word forms, like the whole idea of *Kumara* and *Makara*, these kind of anagrams. She mentions this also about 3-1-4-1-5, how it's given in different traditions in different orders, yet always that it's still a reference to the same numeric sequence.

So, you know, having looked at this again and again through the years, this just kind of recently came to me, is that the tetrahedron is also—so we normally think of it as the four, the tetrahedron, right? It's obviously the four because it has four points, has four triangles. It makes sense that it's referred to as the tetrahedron. But if you count the center point and you count each of the vertices, you actually have five. So this was something else I mentioned there quickly in passing.

Oh, the five is there too, right?

This again connects up to the Fifth Hierarchy. So in another sense, this whole process of descent and differentiation—you know, this is part of the mystery of the teaching—is being enacted by hierarchies of beings who, that is the function, the *dharma* that they perform, is the breathing forth; they assist and participate in this logoic breathing forth of the cosmos.

The Fifth Hierarchy in particular, kind of being that string of thread which reaches all the way down to the human level, right? Because they're the same beings who awaken *manas* in humanity. So the five is there, the four is there, the five is there, and the seven is there.

Actually the 12 is there too, because you have four triangles and each have—they're each three-sided. This is another thing that HPB says: "Well, three times four is 12." Add them together, you multiply them.

So in another sense, as you examine these shapes, you start to realize, "Oh, you're referencing the other hierarchies as well." It's never just an isolated meaning, and there's depth upon depth.

Just one other last point is that what she says about all these sacred symbols—that they apply to seven distinct sciences in esoteric philosophy, and that you can really only know, fully know, the meaning of one of them if you know all seven. That requires an adept.

So we're, you know, we're just on the very outside edge of it, kind of just trying to make some of these connections. Wonder is really an act of praise and wonder. That's the way I see my presentation today. You're not getting this from someone who knows these things, but who's just, you know, kind of in awe, awe, awe.

Yeah, it is. It is so awesome.

Yeah, and the connection with living beings, you know, so yeah.

Well, thank you. Thank you. Thank you, Kirk.

I wanted to also kind of segue into another thought. I had these two thoughts of the point—that central point, which seems like it was so significant throughout your presentation in the geometry, like the circle with the center point, and then the center becomes three. You mentioned something that I came across recently, and that's the meditation of yourself at the point of a center of a sphere, and then you have these radius lines. Would you recommend that as a meditation for us as students here in the Lodge?

Absolutely! Absolutely. Just one other point about that, because I've been thinking a lot about it recently: it's very difficult to try and send consciousness universally, omnidirectionally, from a single point—to reach out in all directions at the same time. It's very, very difficult.

But, you know, we're given a kind of a step-by-step process by the Buddha himself. This is one of the meditations that he recommended, right? That you take a quarter at a time.

I found this to be much easier. If you think of your spine as a straight line going up, infinitely up and infinitely down, and that's the center point of a quadrant, you just take one quadrant at a time. You send your deepest compassion and wisdom—the way Matthieu Ricard speaks of it is the kind of loving compassion and concern and care that you would feel for a baby that's in your responsibility, that you send that out. It's not just consciousness being sent out, kind of this blank of awareness, but you send your deepest wisdom and compassion out and you fill that whole quadrant. Spend four minutes on that one quadrant, and then go to the next one, and then go to the next one, and then go to the fourth one.

Suddenly you'll find that you have, with practice, this kind of all-encompassing, all-embracing sense of the self being, you know, all that there is, and all beings. So, yes, it's an archetypal, quintessential meditation for anyone who's interested.

I'm going to definitely try it, but it does sound hard. When you were speaking just now, I imagined my spine going up like an aerial, going in all directions. But I'm going to try.

Yeah.

Okay, Jonathan, you're up.

This is one of the hardest things I've done all year. We're out of time.

Oh, no!

But Judy has a question. Judy, I'm kind of emcee here, so go ahead.

Okay, well, it's very quick. Could you say that the dodecahedron is the last of the Platonic solids before the Earth becomes circular? It builds up from a square, or the other solids, to the dodecahedron, because it's almost a circle.

Yes. Well, it has that—as we tried to point out, it has that additional feature of it being formed of pentagrams, right? The pentagram being associated with the Fifth Hierarchy of beings enlightened in previous cycles of evolution, who are watching over and guiding, whose knowledge is omniscient, and who are watching over and protecting all beings that are manifesting in that particular cycle. So, we tried to convey some of that, the beauty of that, as to me being a quintessential aspect of sacred geometry. Yeah.

Okay. Thank you.

Wonderful. Would you say, Kirk, that the fact that the dodecahedron is so synthesizing, but that the principle of sacrifice for the whole is a core feature of the dodecahedron—of it being made out of pentagrams?

Yeah. And yeah, the 12 also being the 12 great orders, which we didn't talk about the *nidanas*, except in just mentioning them, but the whole cycle of transformation of consciousness, yeah, both being trapped in the cycle of evolution and its release. So, the *nidanas* refer to both, and HPB makes this statement about the *nidanas* too: whatever we may think we know about it, it concerns the deepest mysteries, which are only revealed in initiation. So, again, we're just skimming over the top, but hopefully some bit of the depth gets translated there.

Well, Desiree, I'll let you wrap it up about this. We didn't get to the prime numbers, but okay.

Thanks so much again, Kirk. Oh, man, that was powerful, and I know it's getting late, so I'm going to wish everyone a wonderful evening. Thank you for being with us, and we hope that you will be here with us next week. Yes, involution and evolution, very appropriate following this topic. Thank you, Jonathan.

Thanks again, everyone.

Thank you, Kirk.

Thank you, all. That was wonderful.

Magnificent. Thank you.

Thanks, Desiree. Good thing.

Thanks, everyone.

Thanks, everyone.

Thanks, Kirk.

All righty. Good night, all.

Good night. Bye, Donald Watsons.