

## **“DIVINE GEOMETRY”**

### **(PART 1)**

**By: Carlos Antonio Martinez, Jr.**

Geometry is the one Science which is considered “The Most Essential of All”, and the one which is most employed and represented in the ceremonies and symbols of Free-Masonry and other Initiatic Schools. Literally, Geometry means: “Earth’s Measure” or “Measure of the Earth”, and its actual significance substantiates precisely that. In ancient Egypt, the nation from which Greece inherited this and other fundamental sciences, the Nile river flooded its margins every year, inundating the land and erasing the methodical trace of parcels and cultivation zones. To the Egyptians, this annual inundation symbolized the cyclical return of the primogenial aqueous chaos, and when the waters receded, the labors of redefining and reestablishing boundaries began. This particular work was called Geometry, and was thus considered “The Restoration of the Principle of Law and Order over the earth”. Every year, each measured zone was a little different; the Human Order was ever changing, and that was reflected in the regulation of society. The astronomer of the Temple then could tell that certain celestial configurations had changed, and, therefore, the placement or location of the Temple had to be adjusted accordingly. Like so, the parcel mapping of the land had for the Egyptians a social, physical, and metaphysical dimension. The activity of “measuring the earth” became the foundation of a science of such Natural Laws as those incarnate in the archetypical shapes of a Circle, a Square, and a Triangle.

Geometry is the study of Spatial Order, by way of measuring the relation which exists between forms. Geometry and Arithmetic, next to Astronomy (the science of temporal order through which cyclical movements are observed and studied), constituted the principal intellectual disciplines of Classical Education. The fourth element of this important academic program of four parts – The Pythagorean Quadrivium – was the study of Harmony and Music. By mastering these sciences, the Initiate was able to assimilate the Universal Laws that defined the relation and interchange between the temporal movements and celestial occurrences on one hand, and the spacial order and development of the world on the other.

Later were aggregated the sciences of Grammar, which teaches the expression of ideas with the proper rules of the language; Rhetoric, which provides adorning and beauty to spoken words; and Logic which assists in the formation of accurate judgement of things. These, were the three additional elements with which “The Liberal Arts or Sciences” came to be formed – and, which, in the context of Traditional Observance Masonic Ritual, are represented by the Seven Masters that are necessary to make a Lodge just, legal, and perfect.

The implicit objective of this education, was to permit the mind to become a “canal” through which the “earth” (the level of manifested form) could receive the abstract – the cosmic life of the heavens. The practice of Geometry was an “approximation” to the

manner in which the Universe is self-organized and self-sustained. Geometrical Diagrams could be contemplated as “moments of immobility” that reveal a continual and intemporal universal action which is generally hidden to our sensorial perception. In that way, an apparent common mathematical activity can become a Discipline in the development of Spiritual and Intellectual Intuition.

Plato considered Geometry and Numbers to be most concise and essential, and, therefore, the “Ideal-One” among all other philosophical languages; But, it is solely by virtue of its function at certain “level” of reality that Geometry and Numbers can become a vehicle for philosophical contemplation.

Greek Philosophy defined the notion of “levels” so useful in our thoughts, by distinguishing “type” from “archetype”. Per indications that we see in Egyptian mural reliefs, recorded in three levels – the superior, the medium and the inferior – we can define a third level as: the “ectype” situated between the archetype and the type.

To see how each-one works, let us take the tangible example of a Bridle or “Brake” utilized to control a horse. This bridle can have a number of shapes, sizes, colors, materials and usages, and they all function as such. The bridle thus considered, is a type: it exists, is diverse, and variable; But, in another level, there is the idea or the form of a bridle, the model for all bridles. This, is an un-manifested idea, pure and formal, and, that, is the ectype. And above this, there is still the archetypal level, which comprises the principle or power-activity – that is to say a process, that the ectypal form and the example of the type of jewel only represent. The archetype deals with the universal processes or dynamic models which can be considered independent of any structure or material form. Modern thinking has difficulty accessing the concept of Archetype because European languages require verbs and actions to be associated with substantives. Therefore, we have no linguistic forms with which to imagine a process or any activity that has no material vehicle. Ancient cultures symbolized these pure and eternal processes with Deities, or, with actions and power-lines through which the Spirit was concretized in Energy and Matter. The bridle is then related with the archetypal activity, through the function of the lever – the Principle by which Energy is subject to control, specifications and modifications, by means of the effects of Angulation. Thus, we see that with much frequency, the Angle – which is fundamentally a relation between two numbers or points – had been utilized in Ancient Symbolism to designate a group of fixed relations that control interactive and complex models. In that case, the archetypes or Gods represent dynamic functions that unite within themselves the superior worlds of interaction and constant process, and the real world of concrete objects. Let us, for instance, see how an angle of 45 or 90 Degrees, just like Geometric Optics reveals that each substance reflects light in a manner characteristic with its own angle, gives us the most precise definition of substance. Furthermore, the angles of union patterns between molecules determine in a great deal the qualities of the substance. In the case of the bridle, this relation or angular game is manifested in the relation between the bit and the bridle strap, between the bit and the inclination of the neck, or, between the mandible and the rider’s biceps. Starting from the level of archetype or active idea, the “usage-

principle” of the bridle can be metaphorically applied to many aspects of the human experience.

Functioning then at an archetypal level, Geometry and Numbers delineate causal and fundamental energies in their interwoven and eternal dance. And, that, is the point of view which supports the expression of cosmologic systems and geometric configurations. For example, the most revered of all tantric diagrams, the “Sri Yantra”, represents the necessary functions active in the universe by means of nine interlaced triangles. To submerge one-self, therefore, in a geometric diagram of such a profound symbolical significance, is to enter a propitious abode for deep philosophical contemplation.

To Plato, Reality consisted in pure essences or archetypal ideas, of which the phenomena that we perceive are only reflections (the greek word “Idea” is also translated as: “Form”). Thus, these ideas cannot be perceived by the senses, but, by pure reason only. Geometry was the language that Plato recommended as the clearest model to describe that metaphysical kingdom.

“... Don’t you know that Geometricians utilize visible forms and speak of them, even though it is really not about them, but, about those things of which they are a reflect, and so they study the square and the diagonal, and not the images that they draw? And so on in all cases, what they really seek is to glimpse at those realities that can only be contemplated by the mind ...”, The Republic, VII.

The Platonist considers our knowledge of Geometry as Innate in all of us, acquired before birth, when our souls where in contact with the kingdom of the Ideal Being.

“... All mathematical forms have a prior permanence in the soul; so that before experiencing sensibility, the soul contains numbers with their own dynamic; vital figures before the apparent ones; harmonious reasons before harmonious things, and invisible circles before the bodies which move about within said circles ...”, Thomas Taylor. Plato demonstrates so in “Menon”, where he makes an uneducated young servant resolve, instinctively, the geometric problem of duplicating the square.

To the human spirit, trapped in an universe in motion, in the confusion of a perpetual flow of occurrences, circumstances and internal disconcert, the search for the truth has always consisted in seeking the invariable, be it ideas, forms, archetypes, numbers or gods. To enter a Temple which has been totally built in accordance with invariable geometric proportions, is to enter the kingdom of Eternal Truth. Again, Thomas Taylor asserts: “... Geometry permits its devotee, just like a bridge, the clearing of obscurity of material nature, as if sailing a dark sea traveling toward the luminous regions of the perfect reality ...”. Yet, this is not about an immediate success which takes place by simply opening a book on Geometry. Just like Plato alludes, the fire of the soul must be revived gradually through effort: “... How amusing you are, those of you who seem preoccupied by my imposing of less-practical studies. This is not solely characteristic of mediocre spirits, but of all men who have difficulty persuading themselves to accept that it is through these studies, utilized like instruments, that the eye of the soul is purified, and a new fire is thus propitiated to burn within that obscuring organ about to be extinguished by the shadows of other sciences, an organ more important to conserve than ten thousand eyes, for it is the only one with which we can contemplate the truth ...”, The

Republic, VII (Cited in the II Century by Theon of Esmirna in his “Mathematics Useful To Understand Plato”).

Geometry deals with pure form, and Philosophical Geometry rebuilds the development of each form starting with each preceding one. It is a way of making visible the essential creative mystery; The step from creation to pro-creation, from the pure, formal and non-manifested idea to the “here-below”; The world that emerges from that “original divine act”, may be sketched through Geometry, tested through Geometry, and experienced by way of practicing Geometry.

Inseparable from this process is the concept of numbers, and to the Pythagoreans the Number and the Form at the level of Idea were one and the same; However, in this context, the Number must be understood in a special manner. When Pythagoras said: “Everything is ordained around the number”, he was not thinking of numbers in their ordinary numerical sense. Aside from denoting simple Quantity, at the level of Idea, numbers are impregnated by such a Quality, that the formulas and/or concepts of “Duality”, “Trinity” or “Tetrahedral” are not only mere composites of 2, 3, or 4 units; But, they represent a “Whole” or an “Unity” in themselves, each one with its corresponding property. The “Two”, most particularly, is considered to be “the original essence” of the one it precedes, and the formula upon which is founded the Principle and Power of Duality.

Schwaller de Lubiez proposes an analogy by which we can better understand the Universal and Archetypal Sense of the Number: “... A rotating sphere is presented before us with the notion of an axis. Let us think of that axis as an ideal or imaginary line which runs through said sphere; It has no objective existence, but, we cannot help to be convinced of its reality; And to determine anything related to the sphere, such as: its inclination or velocity of rotation, we must make reference of that Imaginary Axis. The number in its enumerating sense corresponds to the measurements and movements of the exterior surface of the sphere, while the universal aspect of the number is analogous to the immovable principle, not manifested, and yet functional of its axis ...”.

Let us now take this analogy to a Bi-Dimensional Plane: If we take a circle and a square, and give the value of 1 to the diameter of the circle and to the side of the square, then the diagonal of the square will always be (an this is an invariable law) an “irrational” “immeasurable” number. We are certain that such number can be prolonged in an infinite series of decimals without ever reaching a resolution. In the case of the diagonal of the square, that decimal is: 1,4142... and is called: Square Root of 2. With the circle, if we give its diameter the value of 1, its circumference will always be of an immeasurable type, 3,14159..., which we know by the Greek Symbol “Pi”.

The principle remains the same in the opposite case, if we give it a fixed value and that unique transaction through which a heard vibration becomes a seen form and its geometry explores the relations of the musical harmony. Though interrelated in their function, our two principal intellectual senses, sight and hearing, utilize our intelligence in two completely different ways. For example: with our optical intelligence, to create a thought we compose an image in our mind. Whereas the ear uses the mind in an immediate imageless response whose action is expansive and evoking an association with

subjective, emotional, esthetical and/or spiritual experiences. Quite often, we all tend to forget that Sentiments intervene when Reason perceives invariable relations. Therefore, when focusing our sensorial experience in our auditive capacity, we can realize that it's possible to listen to a color or to a movement. This intellectual capacity is very different from the "visual", analytical, and/or sequential which we normally use. It is this capacity, associated with the right hemisphere of the brain, that recognizes patterns in space and conjunctions of any type. It may perceive opposites simultaneously and comprehend functions, which, to the analytical faculty, seem irrational. This, is indeed the perfect complement to the visual and analytical capacity of the left hemisphere of the brain, for it absorbs and assimilates spatial and simultaneous orders and influences. Such innate intellectual quality is very similar to that concept which the Greeks called; "Pure Reason", and the Hindus still refer to as: "Heart-Mind". The ancient Egyptians gave it the lovely name: "Intelligence of the Heart", and to reach such capacity for understanding was the implicit goal of life among all Men and Women initiated in the Mysteries.

The practice of Geometry, while employing analytical faculties, utilizes and cultivates that auditive and intuitive aspect of the mind. One can experience the reality of geometric growth, by seeing the image of the diagonal of a square forming the side of a second square. It is about the unreasoned certainty grasped by the mind from the very real experience of sketching the drawing. The logic is contained in the lines on the paper, which cannot be drawn in another way.

As Geometricians, equipped solely with compasses and squares, we enter the bi-dimensional world of the Representation of the Form. A bond is established between the kingdoms of concrete thoughts (form and shape) and the abstract. In the search for the invariable relations which govern and interrelate all forms, we situate ourselves in resonance with universal order. When reproducing the genesis of those forms, we attempt to know the principles of Evolution; and in like manner, while elevating our own patterns of thought to those archetypal levels, we propitiate the strength of said levels to penetrate our minds. Our intuition is thus animated, and perhaps, like Plato says: "... the eye of the soul may be purified and re-ignited, for only through it can we contemplate the truth ...".

One of the fundamentals of Traditional Philosophies lies upon the main purpose of human intellectual faculties, that of accelerating our own evolution, by surpassing the limitations of biological determinism which constrain all other life forms. Methods such as: yoga, meditation, concentration, the arts and craftwork, are psycho-physical techniques that can be used to bring about such a fundamental change.

Once properly initiated into the Mysteries of the Royal Art, the Free-Mason receives a spiritual influence which activates his Psychic Regeneration, that is to say, his Rebirth, his Self-Awareness as a True Man. This reawakening corresponds symbolically with the travel from a point in a circumference to its center, and also with a reverse count which parts from the tenth and ends in the unit, the generating principle of the multiplicity implicit in the decade. Having finished his travels through the lesser mysteries, the neophyte resumes his journey through the Higher Mysteries ... his own ascension through the immovable axis about which rotates the wheel of Destiny, or "ray" which,

going through the Sun, traces the pathway that returns the being to the bosom of the Non-Being.