

The Esoteric Geometry of the Triangle
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Degree work is a pivotal part of the Masonic Lodge. Virtually every lesson taught in Masonry is imparted through the use of ritual. This mode of instruction is most impressive. Modern educators stress the importance of making the learner an active participant in the learning process. New research has also shown that in order for teachers to truly be effective, they must have a strong mastery of the skills and lessons to be taught by them to students. A no brainer, right? Well, within the workings of the rituals of Masonry it is not. Too often we have great ritualists that have no understanding of what the ritual is teaching to the candidate. I was recently at a lodge for a School of Instruction. Under the Grand Lodge of Tennessee, each lodge's new officers are usually instructed by a Grand Lecturer on the proper way to conduct the Tennessee Ritual. After a few months, the Grand Lecturer returns to grade the lodge on its proficiency in the ritual. At this meeting I posed the question, "What is one significance of the repeated illustration of the triangle within Masonry?" I asked the question only for the benefit of those present who were not Masonic readers. It was a room scattered with 32° Scottish Rite Masons, and the meeting was being conducted by a 33° Scottish Rite Mason. I thought at least these brethren could look at their prestigious rings and share some enlightenment. No one was able, or possibly willing, to answer the question. I made an announcement that after the meeting I would take five minutes to give a brief example of the repeated use of the triangle in Freemasonry. Only the 33° Brother, the Worshipful Master, and the Chaplain cared to show any interest. After this occurrence, I decided to write a brief article about the triangle. The product follows. It is not intended to be academic, yet I hope it serves the purpose of giving a little needed light upon a very important Masonic symbol, the triangle.

Articles in both the October and December 2005 issues of *The Philalethes* discuss Geometry and its application in Masonry. The principles of Geometry were held sacred by the operative masons and the ancients alike, and there is little wonder why mystical and moral symbolism and lessons have been attached to geometric figures; after all, thousands of Masons in the United States and the world over were the initial letter of the great science as a representative of the Craft. One geometric figure that is repeatedly illustrated within the rituals of the Craft is the triangle. The triangle is a fundamental Masonic symbol that is visible not only in the degrees of the Order, from Entered Apprentice to the higher degrees of the various obediences, but

within the structure of the lodge room itself. It behooves all Master Masons with a desire to learn to examine the significance and symbology of the triangle.

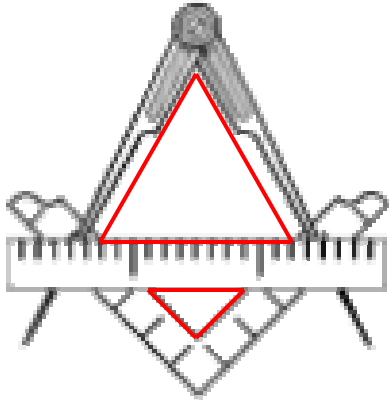
Within the layout of the lodge room there are at least two prominent examples of triangles. The first is seen within the center of the lodge (this description varies by Grand Jurisdiction). In the center of the room are three lights or tapers placed in triangular form around the altar. The tapers are to be appropriately spaced in 3, 4, and 5 units. This construction creates a right triangle with the angle measurements of 37° , 53° , and 90° . The tapers represent the sun, moon, and Master of the lodge. Corresponding with these tapers are the stations of the three principal officers of the lodge: the Worshipful Master, Senior Warden, and Junior Warden, who are also in a triangular relationship with each other.

A triangle is formed by the three stationed officers when the candidate is conducted to the center of the lodge for benefit of lodge prayer in the first degree. The candidate is placed in a position bisecting the longest side. If a perpendicular were to be drawn from the candidate to the Junior Warden it would bisect the triangle formed by the officers into two right triangles with a base made by the vertices of the candidate and the Junior Warden.

As the candidate is conducted around the lodge room and presented at each station for inspection, a right triangle is formed by the principal officer of each station, the candidate, and the Senior Deacon. A triangle is also formed in all three of the Craft degrees when the candidate is conducted to the West to be instructed in how to approach the East in order to obtain light. Initially the Senior Deacon, the candidate, and the Senior Warden form a horizontal line. Upon following the instructions of the Senior Warden, the candidate takes his first, second, and/or third step(s) in Masonry. With his step(s), the candidate moves from a horizontal to form a perpendicular to the line formed by the Senior Warden and Senior Deacon. With this fluid movement the candidate has moved from a horizontal to a perpendicular to form a triangle. (Note the right angles, horizontals, and perpendiculars.)

The greatest presence of the triangle within all of Masonry is within the most recognizable symbol of the Order, the Square and Compasses. Within the Square and Compasses is present at least two dominant triangles. Within some Obediences, mostly irregular or fringe, a rule is added to the Square and Compasses bisecting them at the points where the Square and Compasses intersect. This makes readily visible an equilateral and a right triangle. It is customary within Masonic tradition to open the compasses at a sixty degree angle when

preparing the alter for all three Craft degrees. The triangle formed by the compasses and the rule has three angles all measuring 60° , an equilateral triangle. The triangle formed by the square and the rule is an isosceles right triangle, it has one angle measuring 90° and two measuring 45° .



The point within the circle alluded to within the Entered Apprentice Degree has a resonance of the triangle. This geometric figure, as well explained by Buta (2005), is an instrument made use of in order to accurately draw both equilateral and right triangles. As the Entered Apprentice Degree is an initiation into the science of Masonry, the point within a circle is an initiation into the process of constructing triangles and other geometric forms.

The most direct reference to a triangle within the three degrees is the presentation of the Forty-seventh Problem of Euclid within the Third Degree Stereoptics. The candidate is informed of Pythagoras's great travels in search of light and his presumed induction into the mysteries of secret orders, including the science of geometry and Masonry. This brief excursion is summed by telling the candidate that the symbol is to teach Masons "to be general lovers of the Arts and Sciences" (Duncan, 1976). The candidate is led to believe the inclusion of this figure in the Masonic mysteries is only as a symbol of Pythagoras's love for and acquisition of knowledge.

The afore is a collective rendition of the occurrences where the triangle is used within the Three Symbolic Degrees of Freemasonry as conferred with the York Rite Ritual. Hutchens (1995) in *A Bridge to Light* asserts that the triangle plays a more prominent role in the working of the Craft Degrees in the Scottish Rite system; however, this emphasis upon the Pythagorean Tetractys is little known in the United States since virtually all Americans "take the first three degrees in York Rite lodges" (p. 33). Even so, the presence of the triangle is still undeniable. Undoubtedly there are examples of the triangle within the three degrees not related in the

paragraphs above; however, for the purpose of this article, the afore illustrated examples will suffice.

The goal of this article is to provide a brief explanation of the more esoteric meaning behind the triangle. The most obvious reasoning for use of the triangle within Masonry is the use of the number three. Within Masonry there is no number that appears more often than three. A sacred number, the numeral three is repeatedly illustrated by the great lights, lesser lights, stationed officers, number of degrees, three pillars, and three sides to a triangle. The triangle also contains the three signs mentioned within the Entered Apprentice Degree. Why should an organization affixed upon the numeral three not have as a principal symbol the geometric figure with three vertices, three sides, and three angles? In a statement representing the importance of the triangle to Masonry, Brother Albert Pike (1956) in *Morals and Dogma* declared that the naming of one of the Liberal Arts and Sciences Geometry was a misnomer. He asserted that in the Masonic usage of Geometry the more appropriate science would be trigonometry, the mathematical study of the triangle (p. 34).

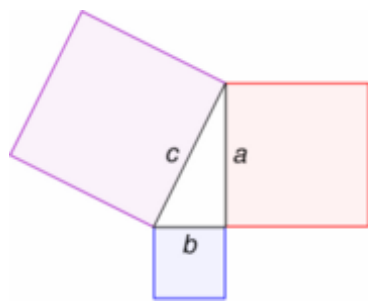
Beyond this point, assumptions, theories, and postulations must be used to illustrate the triangle's significance and meaning. The following is not presented as Masonic fact only as possible esoteric meaning. Beginning with the square and compasses, it was afore asserted that they hold both an equilateral triangle and a right triangle. The equilateral triangle is not directly mentioned or often illustrated within the Craft degrees of Masonry; however, in the higher degrees of both the York and especially the Scottish Rites the equilateral triangle is revered (Hutchens, *A Bridge to Light*, 1995; Hutchens, *Pillars of Wisdom*, 1995; Pike, 1956; Steinmetz, 1976). Steinmetz postulates that the equilateral triangle has different meaning depending upon the direction in which it points. When pointing downward, Steinmetz asserts the triangle represents Deity. When pointing in an upward direction it is a symbol of the perfect man. The brother continues to assert that the Blazing Star within the Mosaic pavement consists of two equilateral triangles, one pointing up and one pointing down representing the union of man, in a perfect state, and God (p. 87). Pike concurs that the Seal of Solomon or Star of David is a symbol of the duality and balance of man and God.

In *A Bridge to Light*, Hutchens (1995) states that the equilateral triangle is always a symbol of Deity (p. 23). Mackey (1927) states that the equilateral triangle was adopted by most all nations of antiquity as a symbol of Deity (p. 945). The sides of the equilateral triangle are

much like the leaves of the clover. Three separate but united figures. Just as the three leaves of the clover are combined to form the plant, the three line segments of a triangle are combined to form the figure. In both cases the individual pieces represent one part of the Trinity Godhead (Father, Son, and Holy Ghost). Within the equilateral triangle each side is equal in length just as each figure in the Godhead is equal in Supremacy, separate but one, different but equal (Hutchens, 1995, *A Bridge to Light*). In *Pillars of Wisdom*, Hutchens (1995) stipulates that the purpose of opening the compasses to 60° is to symbolize Deity.

As alluded to previously, various Masonic Jurisdictions mandate that the tapers around the alter be spaced in units of 3, 4, and 5. All triangles spaced 3, 4, and 5 unit or multiples thereof are right triangles bearing the measurements afore described. The ancients were very partial to the mystical belief in numbers. Due to this reason, “they considered the most beautiful triangle of all, the right angled triangle with sides of 3, 4, and 5 units of measure” (Hutchens, 1995, *A Bridge to Light*). Both Mackey (1927) and Pike (1956) assert that the sides of the sacred 3, 4, and 5 unit triangle are representative of the Egyptian deities Osiris, Isis, and Horus respectively. This assertion has a Masonic tinge in that according to myth, Osiris was killed leaving Horus a widow’s son.

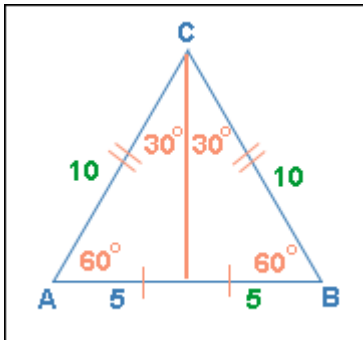
The relationship of Osiris, Isis, and Horus and their representation in the 3, 4, and 5 unit triangle brings the discussion to the Pythagorean Theorem. The theorem states, “the area of the square built upon the hypotenuse of a right triangle is equal to the sum of the areas of the squares upon the remaining sides” (Morris, 1997). The formula is written $a^2 + b^2 = c^2$. The theorem is



most often attributed to Pythagoras; however, it is most likely that the Babylonians, a thousand years before Pythagoras, were in the possession of the knowledge (Morris). In relation to the Egyptian myth, the sum of Osiris and Isis was manifested in the being of Horus.

If this figure were representative of the 3, 4, and 5 unit right triangle of Masonic fame, the length of each side would correspond with the following: a-4 units, b-3 units, and c-5 units. Completing the formula is quite easy since the lengths of each side is given. The formula $a^2 + b^2 = c^2$ becomes $4^2 + 3^2 = 5^2$. After solving the squares, the problem reads $16 + 9 = 25$. The sum of 16 and 9 is 25; thusly, the sum of the area of the squares of “side a” and “side b” (25) is equal to the square of “side c”, the hypotenuse (also 25).

It is repeatedly stated by many Masons and Masonic Jurisdictions that one of the principal purposes of Freemasonry is to take good men and make them better. This purpose is beautifully illustrated within the lecture and explanation of the ashlars. The goal of a Master



Mason is to hewn and improve himself, breaking off the superfluous pieces and perfecting the character of man. The same illustrations could be attributed to the inclusion of triangles within the three degrees. Steinmetz (1976) asserts that the right triangle is a representation of the imperfect man and the equilateral triangle of the perfect man. The goal of a Mason is to take his imperfect state, the right triangle, and manipulate it to the formation of the perfect figure or the equilateral triangle. Two right triangles both with the angle measurements of 30° , 60° , and 90° can be placed together to form a perfect equilateral triangle.

The right triangle formed within the square and compasses may carry the same illustration. It is said by many to represent man in an imperfect state of being. One initial thought on the inclusion of a right triangle below an equilateral triangle within the square and compasses is to symbolize the purpose of man's endeavors on Earth is to learn to subdue his passions, thereby improving himself before the world in the hope of attaining a status of perfection with God at the final day.

These are only a few of the possible meanings and interpretations of the triangle. It is hoped that this brief exploration will serve as a benefit to some inquiring Masonic mind. The reasoning and meaning behind the implementation of the triangle within the Masonic Degrees is for every Mason to interpret for himself; however, that the triangle was included and displayed within the degrees for a purpose would be very difficult to debate. There is very little that is held within the lectures, rituals, and interactions of the lodge that does not have significant meaning. Many of the symbolic meanings have been blurred and lost through the ages; however, the rich gems of purpose are still there waiting to be discovered and bring illumination to the hearts of those who are willing to journey in search of light. It not only behooves all Masons to search for these hidden meanings but it is an obligation.

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