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A Sample Article from Volume 67 · Nº 2

"The Foundation of All Masonry"
**Masonic Emblems Viewed
Through a Pythagorean Lens**

by Christopher B. Murphy, MPS

**In 1723, Bro∴ James Anderson wrote that the
Pythagorean Theorem, "if duly observ'd," was
"the Foundation of all Masonry, sacred, civil, and
military." This article explores the core concepts
of Pythagoreanism in order to bring context to the
Masonic references to Pythagoras as an "ancient
friend and brother." This sample also includes
Editor Shawn Eyer's informative sidebar, "Who Was
Pythagoras?" and artwork by Ryan J. Flynn, MPS.**

Christopher B. Murphy is the Junior Warden of
Fibonacci Lodge № 112 in South Royalton, Vermont.
Bro∴ Murphy is a regular writer for *Philalethes: The
Journal of Masonic Research and Letters.* and of *Ahiman:
A Review of Masonic Culture and Tradition.* His prior
contributions include "'Our Old Noachian Ark':
Craft Masonry and the Traditions of Noah," an erudite
overview of about the role Noah and his sons in Craft
legend, and "'Here lys the tongue that never did
reveal…": The Development & Usage of the Cable
Tow," a seminal study of the subject of the cable tow
based upon the earliest Masonic records.

"The Foundation of All Masonry"
MASONIC EMBLEMS VIEWED THROUGH A PYTHAGOREAN LENS

CHRISTOPHER B. MURPHY ON THE SYMBOLISM OF THE PYTHAGOREAN SCHOOL AND HOW IT COULD BE REFLECTED IN FREEMASONRY

The *Constitutions of the Free-Masons* stands as the first enduring document of the grand lodge era. Perhaps more commonly known as Anderson's *Constitutions* (after its compiler, Bro∴ James Anderson), this document contains a history of the Craft, as was common to documents of the era and of the Old Charges before it. That history contains the following lines:

> …the Greater PYTHAGORAS, prov'd the Author of the 47th Proposition of EUCLID's first Book, which, if duly observ'd, is the Foundation of all Masonry, sacred, civil, and military.[1]

In this passage, Bro∴ Anderson refers to the 3-4-5 right triangle, one of our nine Master's Emblems. By stating that Euclid's 47th is the "Foundation" of all "sacred" Masonry, Anderson is suggesting that this figure, and the underlying concepts, are the collective key to what later Lectures would call "the metaphysical or spiritual art." The importance of this emblem is evident when we consider the frontispiece of the 1723 *Constitutions* themselves. The tableau consists of the passing of the Constitutions scroll from the outgoing Grand Master, to the Grand Master-elect. Within this scene are just two items that are distinctively emblematic of the Craft: the compasses and the 3-4-5 triangle.[2]

Because of the significance attached to Pythagoras' 3-4-5 triangle, it allows students of the Craft to look into the potential Masonic lessons that could be derived from examining various Pythagorean constructs. Further, given that numerological and geometric symbolism are featured so prominently in both Masonic and Pythagorean schools, perhaps such a comparison is obvious.[3] These assumptions, then, bring us to an examination of two Masonic emblems through a Pythagorean lens, viz: the Seal of Solomon, and the Seven Stars.

THE SEAL OF SOLOMON

The Seal of Solomon is the six-pointed star, known more widely in the profane world as the *magen david*, the "Shield of David."[4] The earliest known appearance of the Seal of Solomon in a Masonic context dates to 1633, when the "interlaced triangles" are found on an operative stonemason's rule.

Christopher B. Murphy, MPS, is the Junior Warden of Fibonacci Lodge № 112, Free and Accepted Masons of Vermont.

The Pythagoras Icon by Bro∴ Ryan J. Flynn depicts the ancient contemplative philosopher in a geometrical setting. For more information, see the back cover of this edition of *Philalethes*.
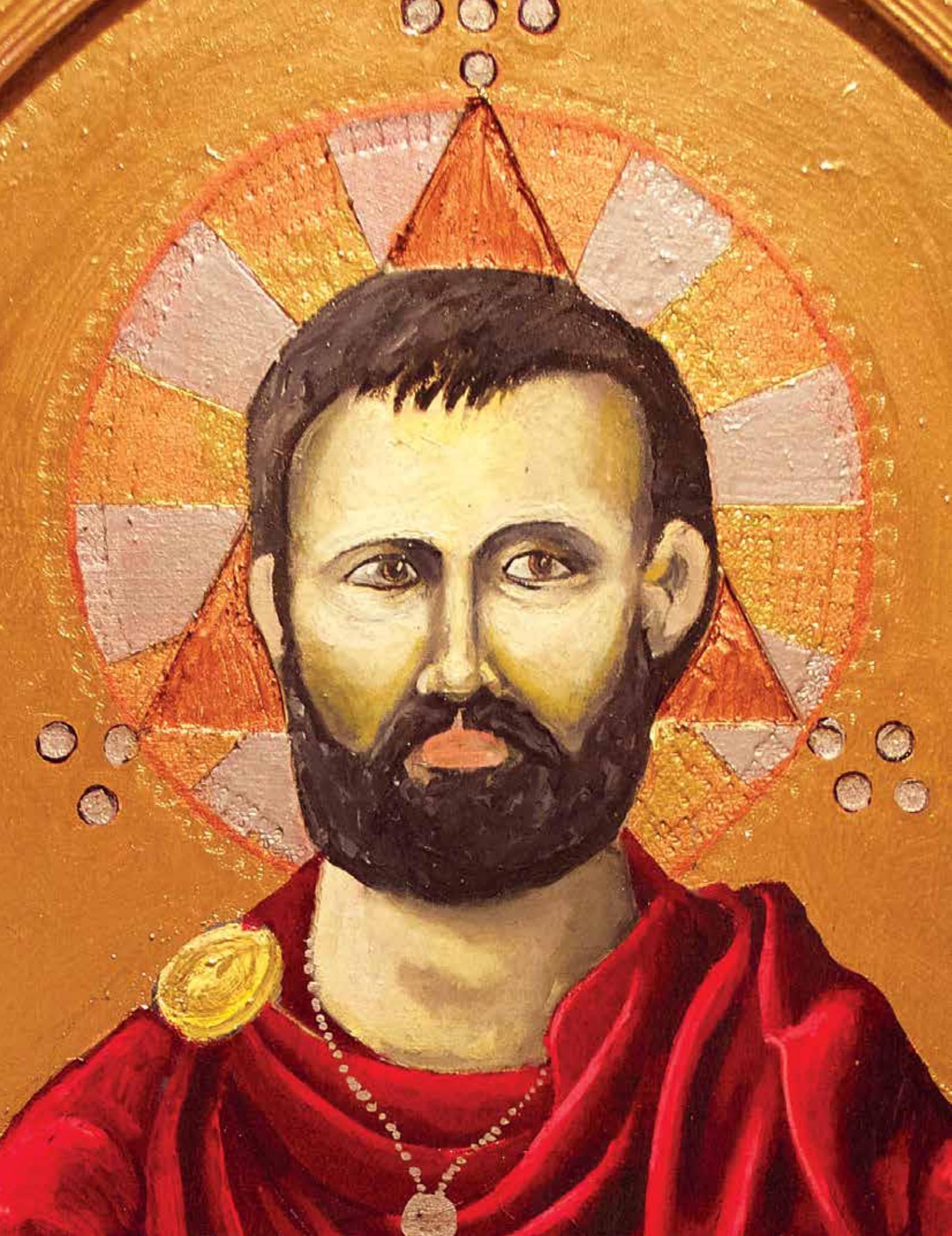
This passed into the ownership of the now-defunct Grand Lodge of All England, and later came into the possession of York Lodge.[5]

The symbol appears today as a part of the Holy Royal Arch. Speaking in terms of Masonic tradition, there are grounds to also consider it as an emblem of the Craft. After all, the Royal Arch degree was practiced as part of Craft Masonry by the Antients Grand Lodge from the time of their inception until the Union of 1813.[6] In the *Articles of Union* that created the United Grand Lodge of England, the Moderns joined with the Antients in unequivocally affirming the Holy Royal Arch as part of Craft Freemasonry: "It is declared and pronounced, that pure Ancient Masonry consists of three degrees, and no more, *viz.* those of the Entered Apprentice, the Fellow Craft, and the Master Mason, including the Supreme Order of the Holy Royal Arch."[7] The Seal of Solomon appears in Masonic artwork as early as 1742, and up to and beyond the 1813 Union.[8]

The same sigil—the Masonic Seal of Solomon—was known differently to the Pythagoreans. To them, the six-pointed star was known as the Hexad. Pythagorean teachings held that numbers were not simply quantitative figures; rather, they possessed characteristics of the Divine. Further, the sigils associated with these numbers symbolized these same characteristics. The Hexad was interchangeable with the number 6, and hence went by a variety of different names, each a reflection of certain characteristics held by the number and the symbol. It is when we view these various names from a Masonic perspective, that we begin to discern Craft-centric lessons. We begin with an eye to the right and left pillars of the porch of King Solomon's Temple.

The Hexad is known as "Peace." Masonically, we know of the "peace that brings together upon the broad platform of Brotherly Love the high, the low, the rich, the poor," as represented by the lily work upon J∴ and B∴. The Hexad is also known as "Health." Health is symbolized Masonically as the plenitude and vigor that is signified by the pomegranates on the two Solomonic Pillars. The Hexad also reflects the concept of "Harmony." This is symbolized by the network on the two Pillars, which, in the words of William Preston's original lecture, "imply that the whole work had been executed, and completely finished in *unity and harmony*."[9]

To men of the Craft, this is the prevailing lesson of the Hexad: harmony. The Pythagoreans saw this in that the Hexad is the first marriage of an odd and even number ($3 \times 2 = 6$). 5 may be the first combination of an even and an odd, but only through multiplication does the "marriage" occur. Pythagoreans also noted the harmony inherent in
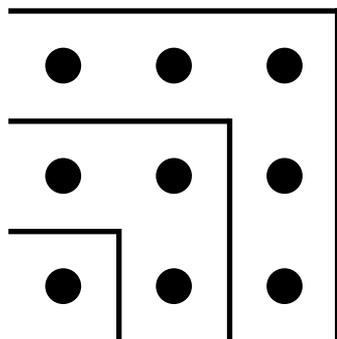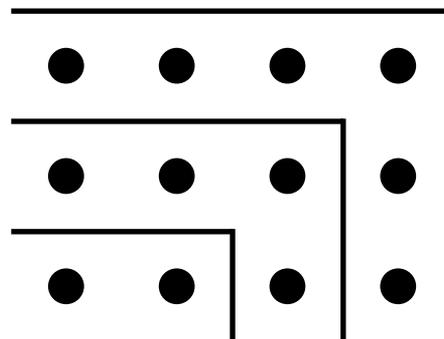

Figure 1.

Figure 2.

Pythagorean teachings held that numbers were not simply quantitative figures; rather, they possessed characteristics of the Divine. Further, the sigils associated with these numbers symbolized these same characteristics.

the "perfection" of 6. A number is perfect when the sum of its divisors, less itself, equals itself.[10] With the case of 6, the divisors are 1, 2, 3, and 6; less itself, the divisors of 6 are 1, 2, and 3, the sum of which is 6. Thus, the Hexad represents perfection.[11]

The Hexad is also known as the "Form of Forms." Pythagoras identified that every group of three consecutive integers, beginning with 1 (1-3, 4-6, 7-9, etc.), when added, equals 6; or equaled a number that when reduced equaled 6. For example:

$$1 + 2 + 3 = 6$$

$4 + 5 + 6 = 15$	$1 + 5 = 6$
$7 + 8 + 9 = 24$	$2 + 4 = 6$
$10 + 11 + 12 = 33$	$3 + 3 = 6$

When we place the Hexad within a Masonic context, further elements of harmony are revealed. Specifically, it is through this method that various dichotomies of the Pythagorean table of opposites can be reconciled when projected upon the Lodge and lodge room.[12]

Two sets of opposites can be considered in concert: even/odd and oblong/square. In order to better conceptualize the characteristics of number, the Pythagoreans often drew numbers as shapes. Even numbers could be drawn as oblong shapes, and odd numbers drawn as squares (figures 1 & 2). Number 6 is even, and therefore 6 is oblong. The Wilkinson M S of 1727 contains the following:

Q. What is the form of your *Lodge*?
A. An Oblong Square.[13]

But if one divides figure 2 along its diagonal, another familiar shape appears, that being the 3-4-5 triangle of Pythagoras (figure 3). By thus dividing the 6, we reveal the 5. From the Oblong, we derive the Square; from the Even we derive the Odd. Also of note here, is that the Pythagorean table of Opposites notes a correspondence between Even/Oblong with the Female, and Odd/Square as Male.

In 1724, *Grand Mystery of Free-Masonry Discover'd* tells us:

Q. Why do Odds make a *Lodge*?
A. Because all Odds are Men's Advantage.[14]

But just as the even yields the odd, and the oblong yields the square, the reverse is also true. For this, we need basic geometry. The area of a triangle is ½(base)(height). In the case of the 3-4-5 triangle, the area is equal to ½(3)(4), or 6. When applying the 3-4-5 triangle to the table of opposites, harmony is brought about via applied use of the Hexad with Masonic Ritual. Thus we find that the Lodge is associated with both odd/square/male and even/oblong/female.

Harmony is revealed when yet another name for the Hexad is discussed: "wisdom." For this reflection of harmony, we look directly to the
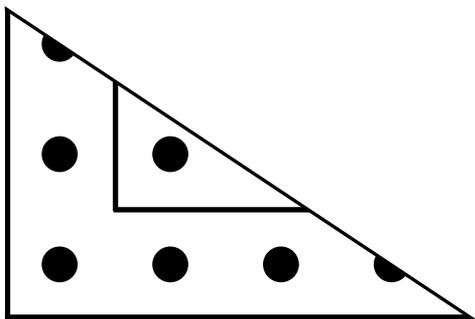
Figure 3.

Figure 4.

lodge room. The East is the seat of Wisdom, and the Entered Apprentice is taught that Wisdom is one of the three "supports of the Lodge," along with Strength and Beauty. The West is the Seat of Harmony, which the Senior Warden occupies in token of that strength and support necessary to all institutions, more especially to the Craft.

By exposition found within the Masonic ritual itself, we see that "Harmony" and "Wisdom" are each synonymous with "support", and that by pairing "Wisdom" and "Harmony" with cardinal points within the Lodge, we can also state that the East and West are synonymous. Thus, Harmony is brought about by bringing another two opposite into equilibrium. While East and West are not found on the Pythagorean table of opposites, the categories of "right" and "left" are.

And so, by a combined application of Pythagorean number symbolism and Craft ritual, the totality of the harmony of the Hexad is brought into focus. When paired with Masonic usage, the Harmony of the Hexad reconciles the odd/even, oblong/square, male/female, and right/left dichotomies. The Pythagorean concepts of the Hexad unite polarities otherwise diametrically opposed. Recalling the premier Grand Lodge's teaching that Pythagorean concepts stood as the "foundation of all Masonry," we can now view a
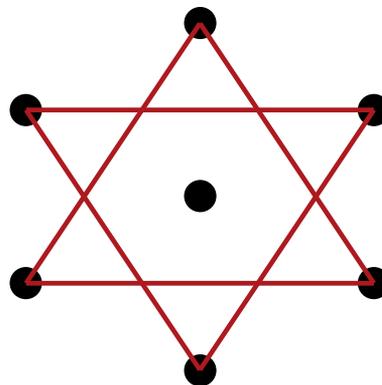
different passage in the 1723 *Constitutions* with the benefit of added Light:

> whereby Masonry becomes the CENTER of UNION, and the Means of conciliating true Friendship among Persons that must have remain'd at a perpetual Distance.[15]

THE SEVEN STARS

A curious collection of Seven Stars cast in the night sky is a Masonic symbol so ubiquitous as to be rendered nearly invisible.[16] The lecture of the first degree tracing board states that these stars "have an allusion to as many regularly-made Masons, without which no Lodge is perfect."[17] Mackey tells us that the Seven Stars represent "right and justice to the order and country."[18] Others suggest a connection to the Pleiades, a star cluster in the constellation of Taurus, along with all the associated astrological and astronomical connotations, as well as a reference to Revelation 1:16, "and he had in his right hand Seven Stars."[19] [See Nathan St. Pierre's article on this symbol in this edition of *Philalethes*, pages 78–81.]

In Masonic artwork, the Stars are often seen surrounding the Moon, which stands opposite of the Sun, in representations of the three Lesser Lights. In other cases, the Seven Stars are scattered

about the sky, seemingly at random, illustrating nighttime.

A third arrangement is of particular interest when approaching the subject from a Pythagorean perspective. Here, six of the stars are gathered geometrically around a central, seventh star. Examples appeared as early as 1731, on the frontispiece of Cole's *Constitutions*. They are found on tracing boards, aprons, paintings, and engravings.[20] This geometrical arrangement of the Seven Stars may bear the symbolic meaning of the other depictions, while forming yet another Pythagorean emblem of harmony. More precisely, it can be viewed as three other emblems of harmony, depending on how the stars are connected.

POINT WITHIN A CIRCLE

The first of these comes when the external stars are connected into two "interlacing triangles" (figure 4). In this pattern, as the Seal of Solomon, the Seven Stars represent Harmony, for all of the reasons noted above. There is a secondary layer of symbolism within this particular design. The two triangles are comprised of a collective 360°, as is a circle. With the center star, we find revealed an encoded circumpunct, or a point within a circle.

Masonically, this symbol was presented with explicit meaning in 1730, when we read in the infamous *Masonry Dissected*:
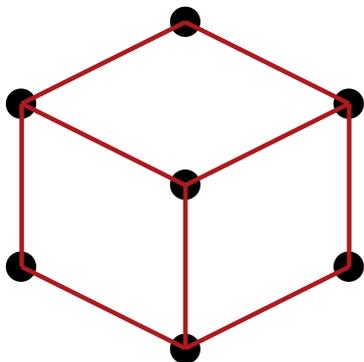
Q. How many principles are there in Masonry?
A. Four.
Q. What are they?
A. Point, Line, Superficies, and Solid.
Q. Explain them.
A. A Point the Centre (*round which the Mason cannot err*)....[21]

The explanation of this symbol is expanded upon when the parallel lines are added:

In all regular, well-formed, constituted Lodges, there is a point within a c...e round which a Mason cannot err; this c...e is bounded between North and South by two grand parallel lines...in going round this c...e, we must of necessity touch on both those parallel lines....[22]

In both of these instances, but in a more pronounced way with the parallel lines, the point within a circle represents balance, a true centeredness. As the Mason travels his life's path, he will have the opportunity to explore one extreme or another, but in keeping himself upon that circle, in keeping himself always near and always equidistant from the center, he is a living demonstration of internal harmony.
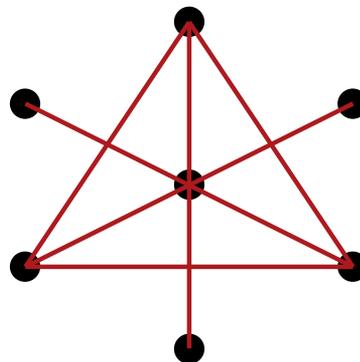
Figure 5.

Figure 6.

BORN ON THE ISLAND OF SAMOS around 570 BC, the Greek philosopher Pythagoras has been renowned for two and a half millennia for his important contributions to human knowledge. He left no writings of his own—and tradition holds that he believed the written word to be ineffective for the propagation of deeper things—and the details of his life are inescapably intertwined with myth and legend. Today, scholars debate what the "real" Pythagoras may have done and taught. In the formative years of Freemasonry, the established traditions about Pythagoras and his brotherhood of followers were generally considered to be historically accurate, and they formed an important inspiration for early Masonic brethren.

Pythagoras was considered quasi-divine, the son of Hyperborean Apollo. Tradition holds that he traveled widely in pursuit of knowledge. Scholars believe that this implies initiation into numerous mysteries, including those of Demeter and Apollo. Pythagoras was said to have visited the underworld, and ritualistic imitations of such a journey, known as *katabasis*, became a key element of later Pythagoreanism. Recent studies have emphasized that these were initiatic forays into caverns and secret chambers for the purpose of fostering profound experiences.

Pythagoras was famous for inventing the word "philosopher," as distinct from the ancient category of "wise man." It was said that a philosopher did not profess wisdom, but loved wisdom and contemplated the universe eagerly. This quality is key to understanding the Pythagoreans, because their pursuit of philosophy included experimentation in the arts of music, arithmetic, and geometry. Through these, they sought to understand the hidden nature of reality.

The Essentials of Pythagoreanism

Pythagoras is renowned for his emphasis on NUMBER as the key to understanding the universe. Although man had long used arithmetic and geometry for business and engineering purposes, Pythagoras reasoned that Number was the foundation that lay behind all of reality. This principle could be explored through MUSIC and GEOMETRY. The Neoplatonist philosopher Iamblichus (circa 245–325 AD) recorded that "Pythagoras described Geometry as *historia*," that is, as *a knowledge discovered through observation and inquiry*. Pythagoras is credited with the revolutionary idea that one could use Geometry not just for practical matters of setting boundary lines or designing physical items, but that it could be used in the abstract to conduct objective research on the nature of the universe.

Closely related to this is the Pythagorean exploration of Music and harmonics. Pythagoras and his followers used their knowledge of Number and Geometry to explore the diatonic scale and its ratios. In doing so, they believed that they were understanding something fundamental about the world. The concept of the "music of the spheres" refers to the Pythagorean teaching that the universe was arranged in harmony, and that this could become perceptible to an individual who was properly prepared to hear it.

The Pythagorean Brotherhood

Another distinctive feature of the Pythagoreans was their organization in a *hetaireia*, or "brotherhood," within which was practiced the *bios pythagorios*, the "Pythagorean way of life." This made Pythagoreanism more than a set of teachings and insights. Following a strict moral code and meticulous behavioral standards,

ἐκαλεῖτο δὴ ἡ γεωμετρία

WHO WAS PYTHAGORAS?

Shawn Eyer, FPS

those of the Pythagorean brotherhood strived to live in harmony with the grand design of the universe. They practiced initiation ceremonies, and those who were part of the brotherhood referred to one another as *hetairoi* ("companions") and *filoi* ("friends").

According to tradition, Pythagoras practiced an esoteric mode of teaching in which his neophytes remained silent for years, learning the *akousmata* ("things heard") only from behind a curtain. Famous for their secrecy, the members of the Pythagorean brotherhood left few clues as to their most sacred rites. However, a portion of the oath taken has come down through tradition:

> *I swear by the discoverer of the Tetraktis,*
> *the perennial fount and root of nature.*

Pythagoreans were famous for refraining from oaths before courts, however. They practiced complete separation between the sacred and the profane, and as they did not involve the gods in worldly affairs, it was seen as irreligious to invoke the divine in a court of law. Similarly, Pythagoreans would never visit a temple to worship a god while running other errands.

Those practicing the ways of the brotherhood freely shared all worldly possessions. They maintained secrecy, practiced *katabasis*, and refrained from eating meat. These regulations promoted a very conscious and deliberate way of living which earned them both respect and, sometimes, persecution.

The Influence of Pythagoras

While, owing to their extreme secrecy and esoteric style, the Pythagoreans left limited writings, the influence of Pythagoreanism upon Plato, and to a lesser extent upon Aristotle, is notable. Through Plato and the Neoplatonists, the teachings of Pythagoras and his brotherhood survived into the Middle Ages and beyond. He was seen as the father of three of the seven liberal arts and sciences, and as the Renaissance developed, Pythagoras was often considered an almost archetypal master of the mysteries of nature. The English philosopher Robert Fludd (1574–1637) in particular emphasized the importance of the Pythagorean tradition.

Pythagoras in Masonic Tradition

Early Freemasonry, as a product of the late Renaissance, looked to Pythagoras as an important source. One version of the Old Charges refers to Pythagoras as the one who found the Pillars of Seth and decoded Adam's knowledge of the arts and sciences from them. In 1723, Anderson's *Constitutions* describes Pythagoras in reverent terms as the "Author" of the Pythagorean theorem, itself "the Foundation of all Masonry, sacred, civil, and military." This is echoed visually on the frontispiece of the book, where the 47th proposition of Euclid is depicted at the bottom of the plate, while Apollo's chariot soars above. Soon after, the premier Grand Lodge explicitly invoked Pythagorean tradition in defense of specific Masonic practices.

Further Study

Perhaps the best single resource on Pythagoreanism is *The Pythagorean Sourcebook and Library*, edited by Kenneth Sylvan Guthrie (Phanes Press, 1988). It contains translations of most of the ancient source material, including biographical accounts, as well as an insightful introduction by philosopher David Fideler.

πρὸς Πυθαγόρου ἱστορία

"THE FOUNDATION OF
ALL MASONRY"

THE CUBE

The second symbol to emerge from the matrix of Seven Stars occurs when the points are joined as if they are the vertices of a cube, or *hexahedron* (figure 5). Simply, the cube is a construct consisting of six sides, which represent a direct connection to the properties of the Hexad. Thus, the cube is another emblem representing harmony.

The cube has another important connotation. The Ancient Greeks credited Pythagoras with discovering at least some of what would come to be known as the Platonic solids. These solids are each comprised of a certain number of congruent faces, with the same number of faces converging at each of the vertices; there are only five such solids within Euclidian geometry. Plato (428–348 B C) was a student of Pythagorean teachings, although not directly of Pythagoras himself. In his *Conversations with Timaeus*, Plato associated the Platonic solids with the four classical elements.[23] In Platonist philosophy, the cube corresponded to the Earth. This connection is essential for understanding the third symbol embedded within the seven stars.

THE TETRAHEDRON
AND THE PYTHAGOREAN Y

The final emblem is actually a combination of two emblems (figure 6). To derive the first, connect the top-center, bottom-left, and bottom-right stars so as to form a triangle. Then connect the center star to each of the three vertices of the triangle (figure 7). In order to discern the meaning of this glyph, we need to consult the Pythagorean concept of the *Tetractys*.

The Tetractys is a diagram of ten points representing the first four natural numbers arranged as an equilateral triangle. One point forms the top tier, then two, three, and four points make up the subsequent tiers. To the Pythagoreans, the Tetractys was no less than a map of reality itself, illustrating the complexity that will inevitably grow from the source of all things, and the equally certain return to the source itself. Indeed, the Tetractys was, according to the ancient oath of the Pythagorean Brotherhood, "the font and root of eternal nature."[24]

Each discreet number that forms this diagram has its own characteristic symbolism. The Tetractys begins, like all things, with 1, or the Monad. The Monad represents the source of creation, the divine progenitor. The 2, or Duad, represents "the other," and introduces the concept of option. The Triad, or 3, represents consensus or commonality amidst polarity. Finally, the 4, the Tetrad symbolizes complexity and multiplicity. Yet along this progression, we see a return to the source, as 1, 2, 3, and 4 sums to 10, or the Decad. Just as the Hexad is the "form of forms" due to mathematical reduction, so too does the 10 reduce to 1 (1 + 0). Thus we find the Decad as a reiteration of the Monad.

So important was this conceptualization of the universe, that the Pythagorean school used the Tetractys to map out other hierarchies of complexity. For instance, magnitude. Magnitude progresses from a Point (zero dimensions), to a Line (one dimension), to Superficies (two dimensions), to a Solid (three dimensions). Using the Tetractys as a model, these degrees of magnitude correspond to the Monad, Duad, Triad, and Tetrad, respectively—it bears repeating that these degrees also stood as the four "principles" of Masonry.[25]

The simplest three-dimensional or "solid" object is the Tetrahedron, which is drawn in the manner our stars are joined for the first part of this symbol (figure 7).

Another use of the Tetractys was to arrange the classical elements into a hierarchy of complexity. Fire was the simplest, followed by Air, Water, and, lastly, Earth; these correspond to the Monad, Duad, Triad, and Tetrad, respectively.

And so: within the Tetractys model of complexity, there is a correspondence between the tetrahedron and Earth. As established above, Earth corresponds with the cube. Also shown, the cube corresponds with 6, and thus with the Hexad (or Seal of Solomon), and is thus representative of Harmony. As such, following the established chain of correspondences within the Pythagorean context—otherwise described in the Euclidian axiom "Things which are equal to the same are equal to each other"[26]— the Tetrahedron is yet another representation of harmony.

The second star-construct, paired with the tetrahedron, is revealed when the upper-left, upper-right, and bottom star are each connected to the center star (figure 8). The resultant Y-shape represents the teaching known as the "Pythagorean Y." (Refer to the illustrations on page 76.)

To the layperson, the Pythagorean Y (Greek letter Upsilon) represents a personal choice in conduct: a life of leisure, or a life of labor and challenge. The easy path ultimately leads to a fall, be it from gluttony, sloth, arrogance, false confidence, or any other ill that comes from self-indulgence and avoidance of trial. The path to enlightenment, on the other hand, is rigorous and involves overcoming both exterior and interior obstacles. This is reminiscent of some beautiful language found in Vermont's lecture of the second degree:

> . . . . after his laborious ascent up a flight of winding stairs, he can only approximate by the reception of an imperfect, and yet glorious award, in the revelation of that "Light which none but craftsmen ever saw."[27]

We can also find another lesson here. Instead of representing an either/or decision stemming from a man's base self, we see that the Y is truly a representation of man's nature descending from the Creator, and man's duty to answer to both aspects of his nature. Pythagoras admonished his students, "go not beyond the balance."[28] This axiom was manifested in the fact that Pythagoreans were active and contemplative; they were thinkers and doers, in equal parts to equal enjoyment. By eschewing either extreme, the Pythagorean philosopher achieved inner harmony. Freemasonry teaches the same lessons by encouraging the initiate to serve with fervency and zeal while keeping his passions subdued.
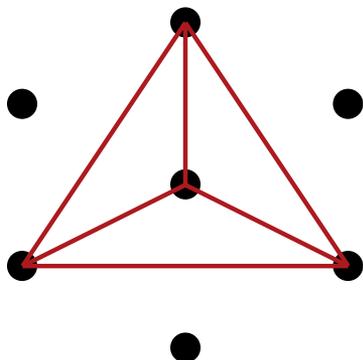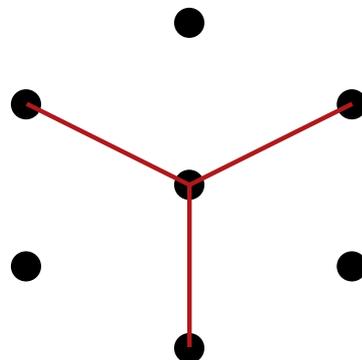

Figure 7.

Figure 8.

Two allegorical illustrations of the Pythagorean Upsilon (or "Y") from Geoffroy Tory's classic 1529 book on the formation and meaning of the alphabet, *Champ Fleury* (Fr. "Paradise"). The wide and comfortable path of the common man leads finally to destruction, while the narrow and difficult path of the philosopher leads to peace. In the image on the right, we see the Pythagorean aspirant ascending past the wild beasts of *libido*-longing, *superbia*-pride, and *invidia*-envy.

CONCLUSION

Pythagorean thought was given great significance by Bro∴ Anderson, but Pythagoras' place in Craft lore was already well-established by 1723. Pythagoras is first found in a Masonic context in the Cooke ᴍꜱ, dated approximately to 1450. He is briefly mentioned with regard to music, but is later credited with discovering the pillars upon which the seven liberal arts and sciences were inscribed by the antediluvian Masons. It is therefore Pythagoras, that "great clerk" who is responsible for propagating Grammar, Rhetoric, Logic, Arithmetic, Geometry, Music, and Astronomy after the flood. Pythagorean contributions to the Craft, its philosophy, and its symbolism have therefore been present for nearly six-hundred years.

Even today, echoes of Pythagorean thought are present within Freemasonry. Euclid's 47th proposition is one of the nine hieroglyphical emblems of the Master Mason degree. This geometrical procedure demonstrates how to easily generate a perfect right angle and determine the dimensions of any triangle which includes a right angle, and has important applications in operative masonry. Our tradition elucidates this proposition in a decidedly speculative way:

This was an invention of our ancient friend and brother, the great Pythagoras, who, in his travels through Asia, Africa and Europe, was initiated into several orders of priesthood, and raised to the sublime degree of a Master Mason. This wise philosopher enriched his mind abundantly in a general knowledge of things, and more especially in geometry or Masonry; on this subject he drew out many problems and theorems, and among the most distinguished he erected this, which, in the joy of his heart, he called *Eureka*, in the

Grecian language signifying, *I have found it*; and upon the discovery of which, he is said to have sacrificed a hecatomb. It teaches Masons to be general lovers of the arts and sciences.[29]

As long as we recall that it is Pythagoras who was "prov'd the Author" of Euclid's 47th Proposition, then we realize that today's Master's emblem charges us with promoting the arts and sciences just as Pythagoras himself did when he—*mythically speaking*—recovered those secrets from the antediluvian brethren of legend. The broader indication is that we are always to remember and recognize the influence of ancient Pythagorean philosophy on our contemporary Craft labor.

With our minds thus keyed, we can examine our Craft symbolism from a freshly revealed perspective. Specifically with regard to the Seal of Solomon and the Seven Stars, we can infer guidance toward harmony: harmony within ourselves, harmony in our interactions with others, harmony with our brethren, harmony within the Lodge, and harmony with the Great Architect.

NOTES

1   James Anderson, *The Constitutions of the Freemasons, Containing the History, Charges, Regulations, &c. of that most Ancient and Right Worthy Fraternity* (London: William Hunter & John Senex, 1723), 20–21.

2   Anderson, *Constitutions*, frontispiece.

3   Known most widely for his mathematical contributions, Pythagoras of Samos (born circa 570 BCE) was also a philosopher. He developed a school designed to aid his adherents to come to a greater understanding of the divine source of all things. Focusing on numerical, geometrical, and harmonic manifestations of Deity, Pythagoreans sought enlightenment and balance. *The Pythagorean Sourcebook and Library* (Grand Rapids, Mich.: Phanes Press, 1988), compiled and translated by Kenneth Sylvan Guthrie, collects most of the extant classical documents of Pythagorean thought and teaching. Unless otherwise noted,

the statements of Pythagorean thought are gathered from Guthrie.

4   Joseph Gutmann, *The Jewish Sanctuary* (Leiden: Brill, 1983), 21.

5   Bernard Jones, *The Freemasons' Guide and Compendium* (Nashville: Cumberland House, 2006), 520. See also John Brownell, et al., *The Tyler-Keystone* 21 (1906), No. 4, 72. For more information on the Grand Lodge of All England, see David Harrison, *The York Grand Lodge* (Suffolk, UK: Arima, 2014).

6   The earliest explicit reference to the Holy Royal Arch being conferred appears in 1744. See Fifield Dassigny, *A Serious Enquiry into the Cause of the present Decay of Free-Masonry in the Kingdom of Ireland* (Dublin: Edward Bate, 1744). There are arguments to suggest that some pre-1744 writings indicate the practice of the Royal Arch; for a comprehensive overview of those arguments, please see Jones, *Freemason's Guide*, 494–96.

7   William J. Hughan, *Memorials of the Masonic Union of A.D. 1813* (London: Chatto & Windus, 1874), 22.

8   For multiple examples, please see W. Kirk MacNulty, *Freemasonry: Symbols, Secrets, Significance* (London: Thames & Hudson, 2006); for the 1742 example, see Pietre-Stones Review of Freemasonry, http://www. freemasons-freemasonry.com/TBs.html

9   Colin Dyer, *William Preston and His Work* (Shepperton, UK: Lewis Masonic, 1987), 247.

10 The next perfect number after 6 is 28, then 496, then 8128. These were known to the Greeks. As of 2013, there are 48 known perfect numbers, the highest being 34,850,340 digits long. See http://en.wikipedia. org/wiki/List_of_perfect_numbers

11 See Guthrie, *Pythagorean Sourcebook*. See also Robin Waterfield (Trans.), *The Theology of Arithmetic* (Grand Rapids, Mich.: Phanes Press, 1988).

12 The Pythagorean table of opposites consists of the following dichotomies: finite/infinite, odd/even, one/many, right/left, rest/motion, straight/crooked, square/oblong, male/female, light/darkness, and good/ evil.

13 Harry Carr & G.P. Jones (Eds.), *Early Masonic Catechisms* (London: Quator Coronati, 1963), 130, emphasis added. Hereafter cited as EMC.

14 EMC, 77; emphasis added.

15 Anderson, 50.

the War for Independence. As the influence of the Moderns faded, America became a bastion of Freemasonry in the style of the Antients, preserving older ritual forms and somewhat more egalitarian approach to membership. He explores the famous 1778 Saint John's Day in Philadelphia in which George Washington participated, noting several frequently overlooked details.

Prof. Hackett then moves on to discuss how the rituals of Freemasonry affected participants psychologically. He cites leading brethren of the early 1800s on how Masonry's rituals were intended to "impress the mind with a deep sense of eternal things," and that the symbols and ceremonies were instruments of the mind "to retain knowledge and communicate it to others." (87) One misstep here may be his suggestion that these developments were new in the early nineteenth century, as it is clear that Masons throughout the eighteenth century also experienced their rituals as transformative. However, it is true that these later brethren were more expressive and left more literary records of their impressions.

Hackett's scholarship then considers the Anti-Masonic period, and the encounters of the Craft with middle-class Protestantism and Native American culture (including over four pages about Bro∴ Arthur C. Parker, one of the early Fellows of the Philalethes Society). He also explores the role of Jews in Freemasonry, which grew significantly during the *haskalah*, as well as the early role of Catholic brethren in the Fraternity, and the later tension between the Church and the Craft. The work concludes with a summary of Freemasonry today, detailing some of the revitalization taking place, including recent Masonic restoration efforts.

Considering the author's rich academic background in religious studies, it is unfortunate that no significant treatment of the Masonic culture of the era from Albert G. Mackey up to Joseph Fort Newton is attempted. While this would have created a more well-rounded survey of American Freemasonry, *That Religion in which All Men Agree* is a penetrating and perceptive work that is likely to serve as a touchstone for future scholarship.

Reviewed by Shawn Eyer, ꜰ ᴘ ꜱ

"THE FOUNDATION OF ALL MASONRY"

16   For a general introduction to this neglected symbol, see Nathan St. Pierre, "The Symbol of the Seven Stars," *Philalethes* 67 (2014): 78–81.

17   *The Complete Workings of Craft Freemasonry* (Surrey, ᴜᴋ: Lewis Masonic, 2012), 68.

18   Albert G. Mackey, William James Hughan & Edward Hawkins, *An Encyclopaedia of Freemasonry and Its Kindred Sciences* (New York: Masonic History Company, 1916), 2.519.

19   Mackey, *Encyclopaedia*, 684.

20   For examples see *Jachin and Boaz, or an Authentic Key to the Door of Free-Masonry* (London: W. Nichol, 1762), frontis; MacNulty, *Freemasonry*, 27, 28, 30, 153, 276, 302.

21   ᴇᴍᴄ, 164, italics in original. The magnitudes of geometry being referenced as "principles" dates to at least 1727, in the Wilkinson ᴍꜱ (ᴇᴍᴄ, 136), albeit with no further explanation.

22   *Complete Workings*, 200.

23   Plato, *Timaeus* 53ᴄ–ᴅ.

24   Iamblichus, *On the Pythagorean Life* 162.

25   ᴇᴍᴄ, 164.

26   Robert Simson (Ed.), *The Elements of Euclid* (Philadelphia: DeSilver, Thomas & Co., 1838), 8.

27   "Symbolism of the Fellowcraft Degree," *Vermont Masonic Monitor*.

28   Guthrie, *Pythagorean Sourcebook*, 159.

29   Thomas Smith Webb, *The Freemason's Monitor: Or, Illustrations of Masonry: in Two Parts* (Boston, Mass.: Joshua Cushing, 1808), 80–81, orthography modernized. [This first appeared in the 1802 edition of Webb's *Monitor*.—Ed.]

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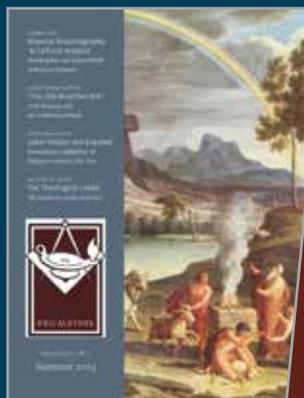
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