

THE SIGNIFICANCE OF THE PAST MASTER'S JEWEL

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In this lecture I will be considering early Operative Masonry and its development into Speculative Masonry and how the two have become conjoined within our current practices.

To be elected the Master of a Lodge is the highest honour the Lodge has in its power to confer on any of its members. When the Master's period of office is completed he is presented with a Past Masters' Jewel by the members of the Lodge, in appreciation of his dedication and service and to symbolise that he has passed through the Craft degrees to a new level of seniority.

In the English Constitution the Jewel is described in the Book of Constitutions as "*The Square and the diagram of the 47th Proposition of the 1st Book of Euclid engraven on a silver plate, pendant within it.*" In Scotland the Jewel consists of the Square, the Compasses and an Arc of a Circle, whilst in Ireland it consists of the Square and Compasses with the capital "G" in the centre. All of these Jewels remind us that the master of an Operative Lodge worked out his plans by means of Geometry. However, when investing the I.P.M. we make no mention of the jewel's significance or symbolism.

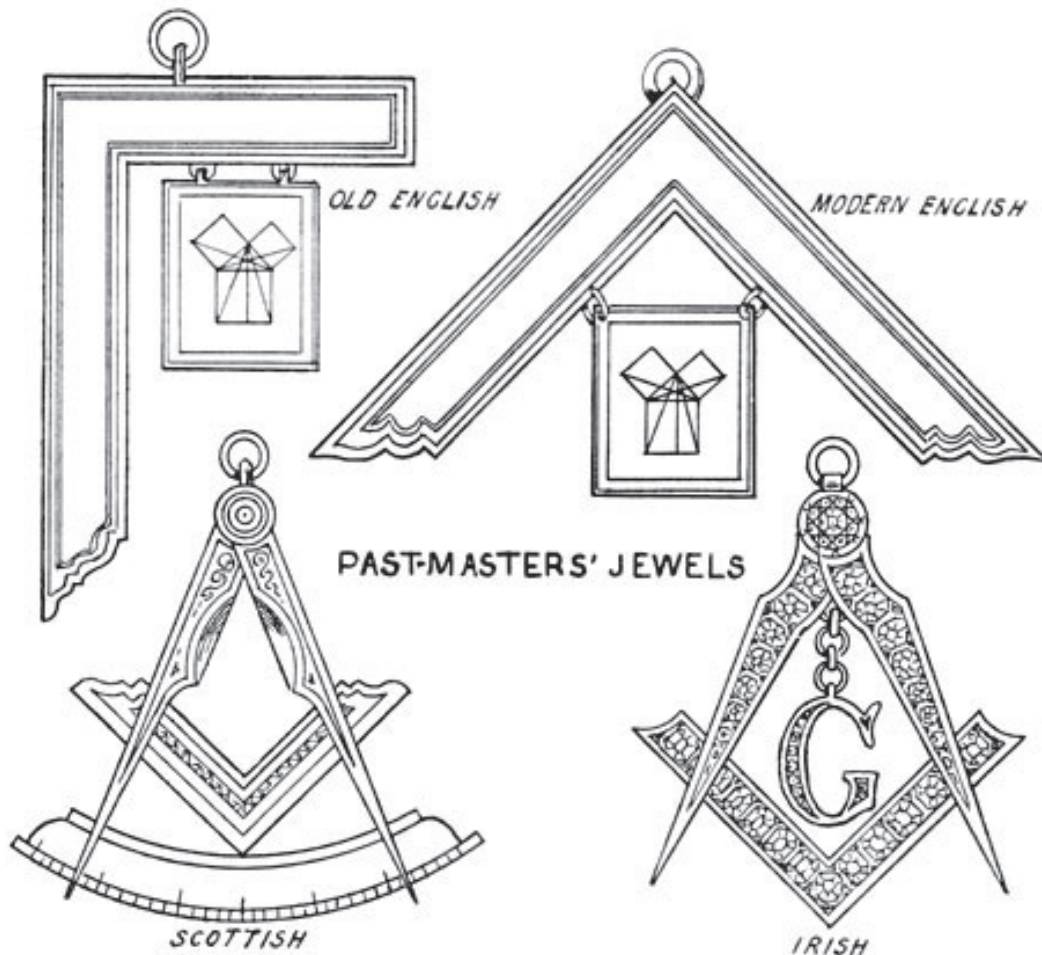


Figure 1 – Past Masters' Jewels

Returning to the English Constitution, Anderson's "Constitutions" of 1723 states "*The Greater Pythagoras, prov'd the Author of the 47th Proposition of Euclid's first book, which, if duly obsv'd is the Foundation of all Masonry, sacred, civil, and military.*" This is a truly momentous statement. So, who was Euclid and why is his 47th Proposition so significant to Freemasonry?

Euclid of Alexandria was born about 325BC and became the most prominent mathematician of antiquity. He lived at the time of the first Pharaoh of the Ptolemy Dynasty in Egypt, who actually studied Geometry under his tuition. He wrote a set of thirteen books, which were called "Elements." In all he published 465 propositions or problems; representing a compilation of the elementary Greek geometrical knowledge of his day and forming the basis of mathematical teaching for 2000 years.

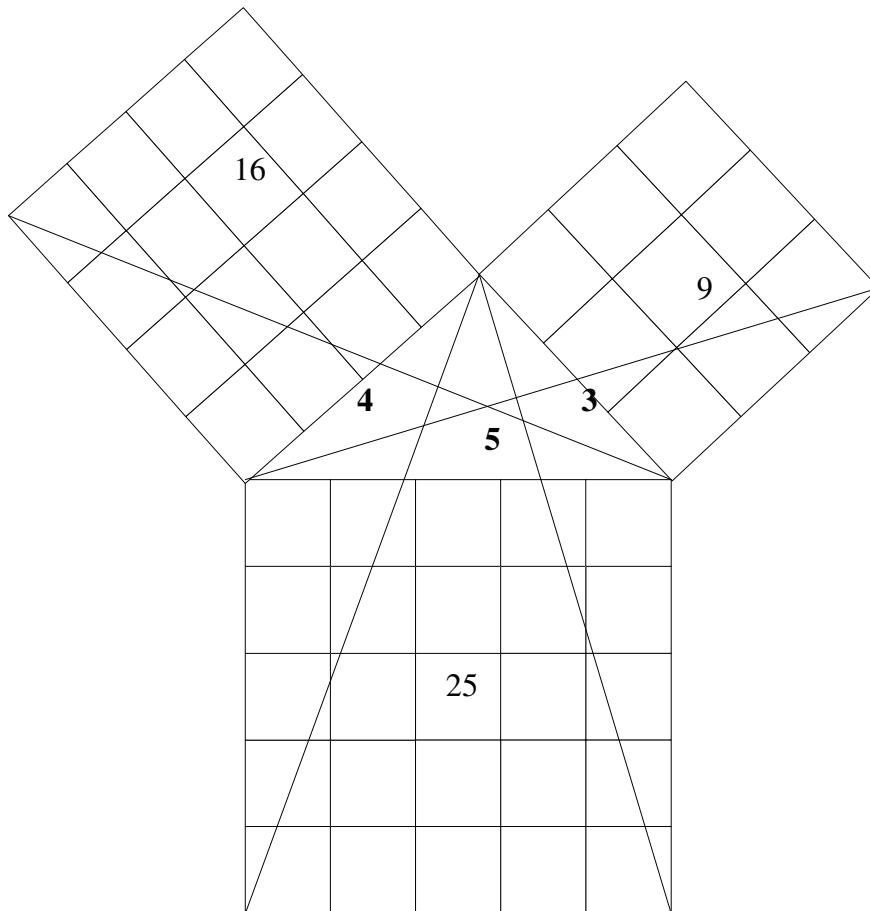


Figure 2 - Euclid's 47th Proposition

The original demonstration of the 47th proposition was by Pythagoras, who was born before Euclid, in 570BC. The proposition states that: - "*In a right angled triangle, the square on the hypotenuse is equal to the sum of the squares on the other two sides.*" This formula is the root of all Geometry and most of applied mathematics and is particularly important in architecture. You will notice in Figure 2 that there are four additional lines. These were used to create additional triangles, used as part of the proof that Euclid used in his 47th Proposition. This illustration of the proof of

Euclid’s 47th Proposition is the symbol on the Jewel appended to the collar of the Immediate Past Master in a Craft Lodge under the English Constitution.

To achieve a right angled triangle it is only necessary to construct a triangle having sides with the proportions of 3, 4 and 5 units. This important knowledge was used by the Ancient Egyptians in order to position their temples exactly due East and West. The specialists, whose sole duty was to lay out the foundations of public edifices, were called *harpedonaptae*, meaning rope stretchers.

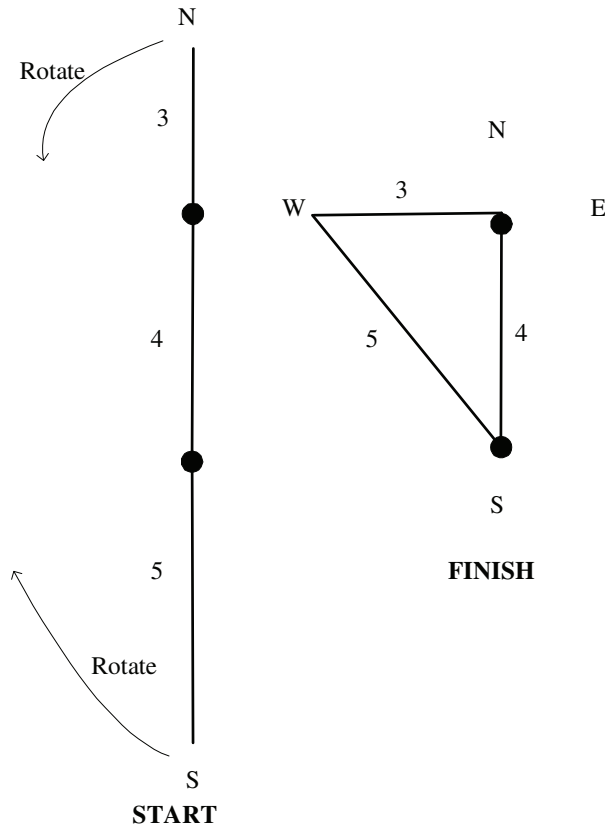


Figure 3 – The Egyptian Rope Trick

They first laid out the North and South line by observation of the stars and sun and their next step was to get the East and West line exactly at right angles. This they achieved by stretching a rope north and south, divided into three parts in the proportion of 3, 4 and 5, fastening the centre part by pegs. They then swung the loose ends towards the West until they intersected and a right angled triangle was formed, as shown in Figure 3. This also shows why it is – *“customary at the erection of all stately and superb edifices to lay the foundation stone at the North East corner of the building.”*

Euclid’s 47th Proposition is central to Geometry and Applied Mathematics and is essential in engineering, astronomy, navigation and surveying; indeed for any problem concerned with finding one unknown from two known factors. Engineers who planned the construction of the Channel Tunnel used it to ensure that the two shafts met in the middle. The surveyor, who wants to know how high a mountain is, ascertains the answer from the 47th Proposition. An astronomer who calculates the distance of the moon, the planets, the sun and other heavenly bodies uses this

formula. The calculations to determine time, the seasons, years and lunar cycles are achieved by using Euclid's Proposition. The navigator at sea also uses the system to determine his latitude and longitude and his true time.

Our ancient brethren also used the point within a circle as a test for the rectitude of their tools, to "Try" or "Prove" the square for their work and to construct their buildings. This can be achieved, as shown in Figure 4, by scribing a circle of any radius and drawing a line through the centre to opposite sides of the circumference. If a point is chosen anywhere on the circumference, then two lines drawn from this point to opposite ends of the diameter will always form a square. The right angle so formed can then be used to "Try" or "Prove" a square used for construction.

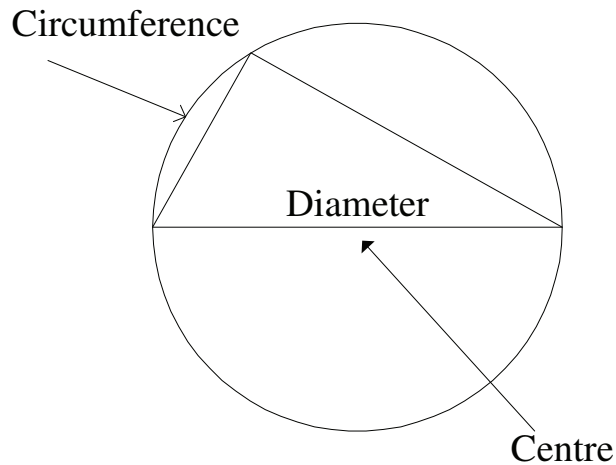


Figure 4 – How to “Try” or “Prove” the Square

In the Second Degree we declare “The Lodge Open, on the Square” and in the Third Degree we declare “The Lodge Open, on the Centre.” We also define a centre as *“That point within a circle from which every part of the circumference is equidistant”* and we use the centre because it is *“a point from which a Master Mason cannot err.”*

A point within a circle (Figure 5) is often associated with a deeper symbolic meaning. The circle can be said to represent the *totality of being* which a Master Mason will try to achieve, in all of its parts, in order to render the spirit complete and rounded, with its focus **on the centre**. Only when this focus is complete can The *Light at the centre* be properly seen and understood. “The Light,” of course, represents the Great Architect of the Universe.



Figure 5 –A Point Within a Circle

These points are further explained in the First Lecture, Sixth Section, which symbolises this by stating that – *“In all regular, well formed constituted Lodges, there is a point within a circle round which the brethren cannot err. This circle is bounded between North and South by two grand parallel lines, one representing Moses and the other King Solomon. On the upper part of this circle rests the V.S.L. supporting Jacob’s ladder, the top of which reaches the heavens; and were we as conversant in that Holy Book, and as adherent to the doctrines therein contained, as those parallels were, it would bring us to Him who would not deceive us, neither will He suffer deception. In going round this circle, we must necessarily touch on both these parallel lines, likewise on the S.V.; and whilst a Mason keeps himself thus circumscribed, he cannot err.”*

This is illustrated in Figure 6 below.

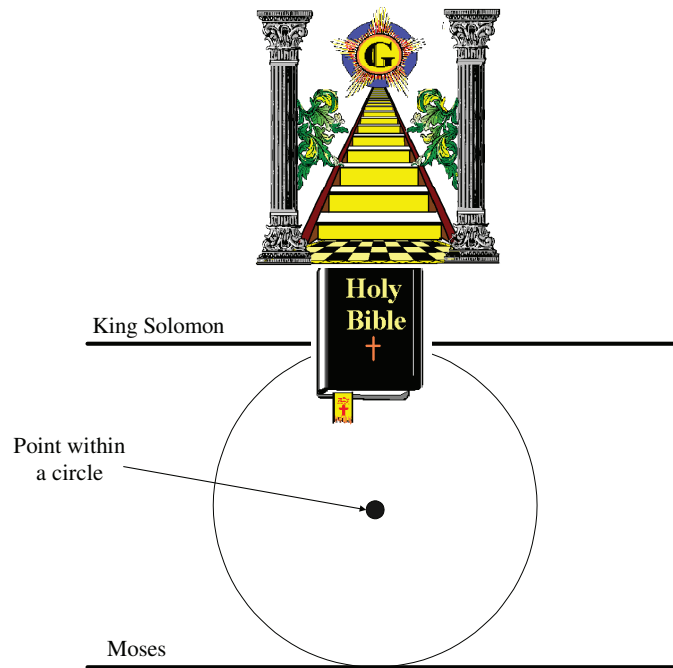


Figure 6 – The Circle and Jacob’s Ladder

A charge given to a new Worshipful Master endorses these points by stating that “you now represent a point within a circle, equally distant from every point of the circumference, indicating that in the discharge of your duties as Master of this Lodge, no favour or partiality shall affect your conduct, but that you be equally mindful of the welfare and instruction of all the brethren, open to all, unjustly swayed by none. Like the point within the circle, the Master, as the centre of the Lodge, is the point of general observation, and should be to the brethren a bright emblem of Justice and Morality, in copying of which a Master Mason cannot err.”¹¹

Symbolically the Triangle is representative of the Deity and the Circle is an emblem of eternity, having neither beginning nor end. The Triangle, Circle and Square can perhaps be considered as the three most important symbols in Masonry.

The numbers 3, 4 and 5 are symbolically important in our ceremonies in a process known as Circumambulation. The candidate symbolically “*squares the Lodge*” by being escorted around the Lodge, three times during the Entered Apprentice ceremony, four times in the Fellowcraft ceremony and 5 times in the Master Mason ceremony, thereby symbolically completing his journey. The number 3 is particularly important for Craft Masonry. We have 3 degrees, 3 Great Lights, 3 Lesser Lights, 3 movable jewels (The Square, Level and Plumb Rule), 3 immovable jewels (The Tracing Board, Rough Ashlar and Perfect Ashlar), 3 Principal Officers and 3 Assistant Officers. There are 4 cardinal virtues (Temperance, Fortitude, Prudence and Justice) and 5 points of Fellowship.

There are three regular steps in Craft ceremonies, each in the form of a tau - It is only in the Royal Arch Ceremony that these steps are brought to a union, in the form of a triple tau – thus formalising the completion of our spiritual journey in Freemasonry.

The Square is introduced to the Entered Apprentice as one of the three Great Lights of Freemasonry and to the Fellowcraft as one of the working tools of his degree. It is also one of the Jewels of the Lodge and the special Jewel of the Master of the Lodge. It is probably the most important tool of a Mason and it is the only tool by which the rough Ashlar can be prepared and tested. It is the tool “*to form the rude and to prove the perfect mass*” and because it is the tool on which everything else depends, it must be perfectly correct. The symbolism of this is very clear.

In Scotland, the Past Masters’ Jewel adds the Compasses and an Arc of a Circle, both of which are essential in order to “Prove” a Square. In Ireland the letter “G” is added, representing the word “*Geometry*,” the foundation of Masonry and “*The Grand Geometrician of the Universe*,” the foundation of life. The symbolism is again abundantly clear.

We are taught that Freemasonry is a Progressive Science and that we should aim to make a “*Daily advancement in Masonic knowledge*.” In the First Degree ceremony we are taught that Masonry is “*A peculiar system of morality, veiled in allegory and illustrated by symbols*.” In Freemasonry every character, figure and emblem is symbolic of a moral tendency, serving to inculcate the practice of virtue in all its many facets. The 24 Inch Gauge, the Gavel and the Chisel stand for Accuracy, Labour and Perseverance and the three Great Pillars represent Wisdom, Strength and Beauty. The star in the mosaic pavement stands for Divine Providence and the four Tassels represent the four cardinal virtues of Temperance, Fortitude, Prudence and Justice. “*Prudence to Direct; Temperance to Chasten; Fortitude to support a Brother and Justice to be a guide to all his actions*” – see *First Lecture, 6th Section*. An ear of corn near to a fall of water denotes Plenty, The Square Morality, the Level Equality and the Plumb Rule, Justness and Uprightness. There are many more that can be named and some symbols have more than one meaning – for example, the Square stands for Morality and also is representative of The Worshipful Master.

In the Second Degree we are told that “*You are now permitted to extend your researches into the hidden mysteries of nature and science*.” But what does this mean? The Fellowcraft Ritual has changed little since the establishment of the first Grand Lodge in 1717 and can be traced back to Thomas Smith Webb, an 18th Century scholar, when Geometry was a fundamental principle of Science. It was written prior to the invention of the steam engine by James Watt in 1769, the discovery of Oxygen by Priestly in 1774 and the invention of the telephone by Alexander Graham Bell in 1876.

Thomas Smith Webb quotes - *“Geometry; the first and noblest of sciences is the basis upon which Masonry is erected. By Geometry we may curiously trace Nature through her various windings, to her most concealed recesses. By it we can discover the power, the wisdom and the goodness of the Great Artificer of the Universe; and view with delight the proportions which connect this vast machine.”* These points are emphasised in The Second Lecture, Second Section, which points out the moral advantages of Geometry, stating that it is the basis on which the superstructure of Masonry is erected.

Geometry is that deductive science which deals with the properties of space and the masses which occupy space. The ceremony of “Passing” prepares the Fellowcraft to appreciate the science of geometry and to appreciate *“The glorious works of creation”* and *“The majesty and awe-inspiring magnitude of the Universe”* which are the perfections of our Divine Creator.

We cannot be sure of the origins of Freemasonry. We do know though that the Geometric principals summarised by Euclid’s 47th Proposition have been practically employed since before the Christian era. Mencius (b. 272 B.C.) taught that *“men should apply the square and compasses figuratively to their lives and the level and marking line besides, if they would walk in the straight and even paths of wisdom and keep themselves within the bounds of Honour and Virtue.”* The principles were developed by Pythagoras and Euclid and formed the basis of Operative Masonry. Geometric symbols were further adopted by early Speculative Masons and hotly debated by members of the Royal Society, which received its Charter in 1662. Many members of the Royal Society, such as (Sir) Isaac Newton, Robert Hooke and Robert Boyle were early Freemasons.

When the first Grand Lodge was formed in 1717 the threads of Operative and Speculative Masonry were conjoined. It is not surprising; therefore, that Anderson in his 1723 “Constitution” stated that – *“if the principals of Euclid’s 47th Proposition are properly observed then they form the Foundation of Masonry.”*

We have seen in this paper how Geometric principles form the basis for Operative Masonry and how symbolic or Speculative aspects of the Geometry form the basis for our moral and spiritual development, leading to a greater understanding of the Great Architect of the Universe.

It is appropriate therefore that an illustration of Euclid’s 47th Proposition should appear on the Jewel of the Immediate Past Master. The Jewel illustrates both the importance of the 47th Proposition as the Foundation of Masonry and the importance of the Immediate Past Master as the person responsible in a Lodge for ensuring that the moral principals represented by the Geometry are properly applied so that the spiritual building so erected is on a sure foundation, with intelligent purpose and admirable to contemplate.

In Freemasonry the Square worn by the Master is the Symbol of moral perfection. It is the Master’s duty to apply the Square of right and truth to the work of the subordinates, but a far higher responsibility rests on the Past Master to “Prove” the Square by ensuring that principles based on absolute truth and correctness are put to the test and used to build a structure perfect in its parts and honourable to the builder. The Immediate Past Master represents one who has erected such a building; but his having done so places him under a responsibility. **That of ensuring that those who are working for the same end shall not fail because he has not set them a proper example, which has been put to the test and proven to be based on absolute truth and correctness.**

I think that you will agree brethren that the Past Masters of a Lodge are vested with the greatest responsibility for maintaining and developing moral standards within the Lodge and assisting members to attain them. All of this is depicted by the jewel worn by them.

David Matthews

Acknowledgements

1. A Daily Advancement in Masonic Knowledge – One Hundred Short Talks on the Craft - by R.J. Hollins.
2. The Shadow of Solomon by Laurence Gardner.
3. The 47th Proposition by Bro. Thomas Greene.
4. Our Ancient Friend and Brother, The Great Pythagoras by Thomas D. Worrel.
5. The 47th Problem of Euclid by David J. Lettelier.
6. Circumambulation and Euclid's 47th Proposition by Reid McInvale.
7. The 47th Problem of Euclid by H. Meij.
8. Turning the Hiram Key by Dr. Robert Lomas.
9. The Lectures of the Three Degrees in Craft Masonry – as Demonstrated in the Emulation Lodge of Improvement.
10. The Educator – V.W. Bro.N. McEvoy, Victoria Columbia Lodge No.1 G.L. of BC & YR.
11. Charge given to a new Worshipful Master in a Hampshire and Isle of Wight Lodge.