The 47th Problem of Euclid, Dissected

The 47th Problem of Euclid is well known in Masonic circles although not necessarily well appreciated by many Masons. From a geometrical point of view, the theorem states that the sum of the square of the base of a right angle triangle combined with the sum of the square of the perpendicular of the right angle triangle is equal to the square of the hypotenuse. Within this theorem is contained much profound Masonic philosophy that is not adequately explained in the lectures, perhaps because at his raising the Master Mason has supposedly learned to develop on his own and no longer needs the Lodge to intercede for him. It is the purpose here to elaborate on this particular area of interest in an effort to spread the cement of masonry to others who may not have considered this repetitive lesson of Masonry. It may not necessarily fit the beliefs or philosophy of every Mason since it is only the dissection of the author’s interpretation.

The Euclid Problem is composed of three parts. The first part of which, is a base of the right angle, or in Masonic terms, a “horizontal,” not unlike the 24-inch gauge, which has some additional allegory attached to it, but which may also fit the 47th Problem of Euclid. The second component is a perpendicular. We also know the perpendicular as a “plumb.” The third component of the problem is the hypotenuse, or that part of the theorem that must be discovered, based on the known facts, by the person solving the problem. We now know how to solve the problem mathematically, as stated in the opening paragraph. But, the Mason in search of light must solve the problem in the context of Masonry.

How do Masons meet? How do Mason’s walk? Lastly, how do Masons part? The level, the plumb, and the square provide us with the answers and simultaneously create for us the mental vision of a right angle triangle. It may be further surprising to learn that in the Lodge there is scarcely ever an answer as to the net effect of those three components as they may pertain to the product of our work in the microcosm of the Lodge and the search for Masonic light. That is to say that the hypotenuse of that right angle triangle is missing. It is here that the Master Mason must deduce for himself the hypotenuse or meaning of the Right angle triangle described by the Master and Wardens. This is the meaning of learning to pray by yourself at the altar. The Lodge can only do so much for you. As a Master Mason you have been equipped to think, act and create on your own, but also as a part of the whole.

Let us first examine the base of the right angle triangle. It is the same as the Masonic “Horizontal” and, as such, may correlate well to the Entered Apprentice Degree. It can be easily extrapolated to mean within that degree, the more material basis of temporal existence. It is this basis on which we spend most of our time, consumed with the mundane terms of everyday life and similar to the child whose focus is solely in his material wants. Specifically, it may reflect how we interact with other people, the productive or unproductive efforts we expend in our vocation, our times of refreshment and those day-to-day things that we do or not do.

In the Fellow Craft Degree we may be thought of as the upright man. We are told the story of the “Plumb” which parallels exactly the perpendicular of the right angle triangle. The Fellow Craft Degree is the degree of intellect, of thought, of introspection and of consideration of the Divine symmetry in all that we see in the material world around us. In the perpendicular we are now using our mind in addition to our body as in the Entered Apprentice Degree. We might be thought of as the
young man who has now begun his search for answers, answers as to why he is here and what he should or should not be doing with his life. It is representative of that stage in life when man seeks to establish through his thought, his connection to Deity.

At this point we are confronted with the body and mind of man for each of which we now have a Masonic symbol, the horizontal and the perpendicular. Additionally we have something further. We have a “right angle” or the Masonic Square, meaning perhaps that what a man does in a material sense should indeed match exactly with what he does in thought and what he thinks matches as well what he does in the temporal world. The exactness and precision of the “right angle” cannot be overstated!

In the microcosm of the Lodge we meet on the level, walk by the plumb, and part on the square. How do we do this? By what formula do we know that indeed this is being accomplished? We are told explicitly through the application of the Four Cardinal Virtues, which are Fortitude, Prudence, Temperance and Justice. In these virtues we have the immediate formula for achieving success in the practice of Masonry and in them we have the sum of the square of the horizontal and the same for the perpendicular. Is this not how a Mason may be known by his conduct? In practicing them how can the material aspects of man’s existence be anything less than Godly? If a man governs his thoughts according to these virtues, how can his thinking be less creative than that naturally occurring creative principle instilled in man at the very dawn of time. Therefore, we have inculcated in our practice the hypotenuse of the Right angle triangle or the Spiritual side of man insomuch as these virtuous qualities cannot lead anywhere but to an emulation of the Divine. This is the light that shines forth in Masonry when the Master Mason considers the tenets of his Order.

This model has now yielded up to us the three characteristics of man, those being body, mind and spirit. We order them quite naturally from temporal to intelligent to spiritual. But, perhaps a real ray of light is the re-ordering of these characteristics in the exact reverse. Suppose that we considered ourselves spiritual first. Would not all of our thinking then be based on more profound insight? Would every Mason then not be fully absorbed in the pro-creative principle of thought as opposed to the destructive principle of thought? If we engaged only in pro-creative thought, would not the horizontal plane be less than mundane? Is it possible that we would truly be evolving instead of devolving in the muck and mire presented to us on a daily basis? Might we then achieve the configuration of an equilateral triangle, symbol of the “Perfect Man in his divinity” among the ancients, instead of just the right angle triangle? This is a thought that the author believes merits considerable meditation amongst the Brethren as it goes to the heart of Masonry, which is after all, what brought each of us to the Lodge in the first place.