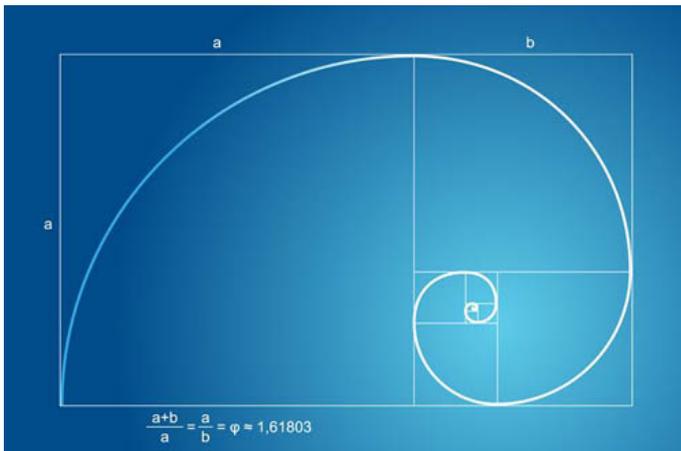


## Thorner Historical Society - Xmas 2016

### Speculation on the golden ratio and three wise men



While designing a page layout recently I had to decide whether to use the **one third rule**, often used by photographers or the **golden rule** which has been used by classical painters and architects. For practical purposes it does not affect most of us in daily life. Except, if you look around, you will find that most growing things and star spiral galaxies are governed by the maths of the golden rule (a ratio of **1 to 1.62** for those interested and based on the Fibonacci numbers produced by an Italian mathematician born in 1175 AD. You will immediately know the effective function of the ratio if you look at the spiral form of a snail's shell or the way leaves grow on a tree.

I decided to calculate the ratio for myself and this led me on to quadratic equations and negative numbers, which I can barely remember from school in my own ancient history. However I lost the plot and found that the history of the people discovering science and maths more interesting. One tends to forget that the Chinese, Indians and the Arabs have studied science and astronomy for thousands of years. Many of the concepts put forward have been shown to be true using modern methods not available in ancient times. Which only makes one wonder if we have become any more intelligent or civilised since?

Following the trail back in time, the understanding of the stars and science was exemplified in Asia and Arabia with astrological structures built across continents to measure the progress of the stars and the planets and even recording the cycle of comets. By the time we get to 100 BC a great deal of information was also available in written form as well.

So, back to stars and astronomy. It is quite feasible that the three wise men of the Xmas story were exactly that: wise men, possibly astologers.

Historical records and modern-day computer simulations now indicate that there was a rare series of planetary groupings, also known as conjunctions, during the years 3 B.C. and 2 B.C. In fact, this was one of the most remarkable periods in terms of celestial events in the last 3,000 years.

On 12 August, 3 BC, Jupiter and Venus appeared very close together just before sunrise, appearing as bright morning 'stars.'

It would have been visible in the eastern dawn sky of the Middle East from about 3:45 to 5:20 a.m.

The crowning touch came ten months later, on 17 June 2BC, as Venus and Jupiter joined up again in the constellation Leo.

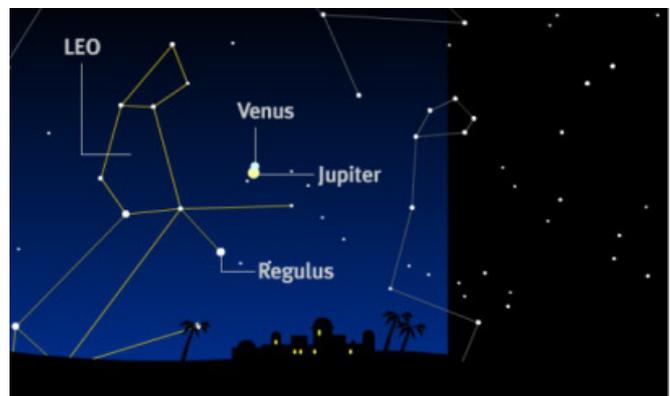
This time the two planets were so close that, without binoculars, they would have looked like one single brilliant star.

Jupiter was known as the "planet of Kings" and Saturn as the "Protector of the Jews". This could easily have been interpreted as a sign that the Jewish Messiah had been, or was about to be, born. Also, Leo was thought to denote royalty and power.

The whole sequence of events could have been enough for at least three astrologers to see this as a sign in the heavens and make their way Jerusalem to ask Herod: "Where is he that is born King of the Jews, for we have come to worship him.

This conjunction itself was unprecedented. It occurred during the evening and would have really lit up the night sky. Was this the fabled Christmas star? It seems so.

Whatever the Star of Bethlehem was, it has had more impact on mankind than any star before or since. It is also possible that the mystery of the Star will never be completely solved. For many of us though, it is the mystery itself that drives us to find the solution. For some though, they already have the answer.





After Jesus was born, Wise Men came to look for Him, probably from an area, which is now in either Iraq, Iran, Saudi Arabia or the Yemen. Although they are often called the 'Three Kings', the Bible does not say how many there were, or that they were kings. One theory is that they might have been Kings of the Yemen, as during this time the Kings of Yemen were Jews. Three is only a guess because they brought with them three gifts: but however many there were of them, they probably would have had many more servants with them.

They were definitely men of learning. The word Magi comes from the Greek word 'magos' which itself comes from the old Persian

word 'Magupati'. This was the title given to priests in a sect of the ancient Persian religions such as Zoroastrianism. Today we'd called them astrologers. Back then astronomy and astrology were part of the same overall studies (and 'science') and went hand in hand with each other. The magi would have followed the patterns of the stars religiously. They would have also probably been very rich and held high esteem in their own society and by people who weren't from their country or religion.

They had seen an unusual new star in the sky, and knew that it told of the birth of a special king. No one really knows what the new star in the sky was, and there are many theories including comets, supernovas, conjunctions of planets or something supernatural!

When the Wise Men found Jesus and Mary, they would have been living in a normal house in Bethlehem, because by this time Jesus would have been aged between one and two. Then they gave their gifts to him. The gifts seem quite strange to give to a baby, but Christians believe that they had the following meanings:

**Gold:** is associated with Kings and Christians believe that Jesus is the King of Kings.

**Frankincense:** is sometimes used in worship in Churches and showed that people child worship Jesus.

**Myrrh:** is a perfume that is put on dead bodies to make them smell nice and showed that Jesus would suffer and die.

The gifts are also all things that come from east of Israel in Arabia.

The 'Star of Bethlehem' is one of the most powerful symbols of Christianity. Was it purely a divine sign, or was it an astronomical event in its own right?

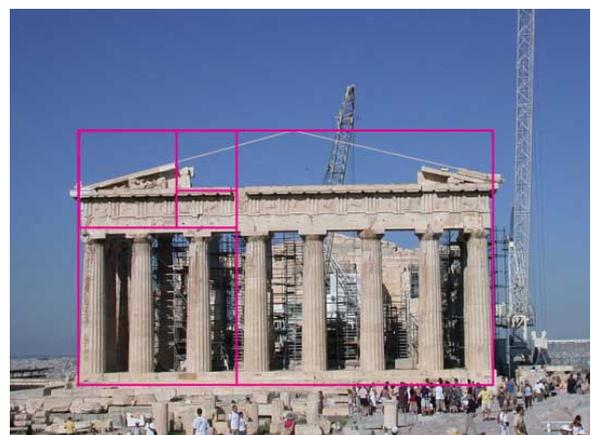
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### Who came up with the golden ratio (Phi)?



**Phidias** (500 BC - 432 BC), a **Greek** sculptor and mathematician, studied phi and applied it to the design of sculptures for the Parthenon.

Euclid proved that the diagonals of the regular pentagon cut each other in "extreme and mean ratio", now more commonly known as the golden ratio.



Best Wishes for Xmas & a Happy New Year  
Graham Castle  
Thorner Historical Society