

### Theano

Theano (5<sup>th</sup> - 6<sup>th</sup> century B.C.), or Theano of Thurii, or of Crotona (Greek colonies in Southern Italy), is the name given to perhaps two (or more) Pythagorean philosophers. These are sometimes referred to as Theano I (the original Theano) and Theano II (another later Theano).



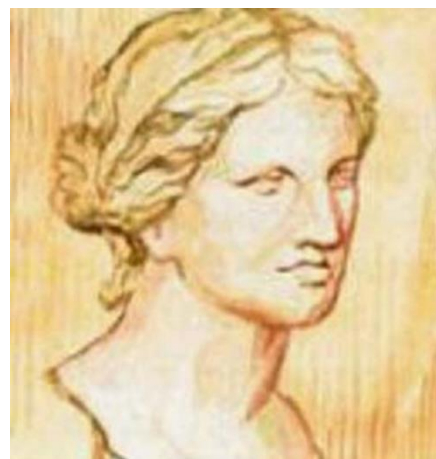
Theano 5<sup>th</sup> - 6<sup>th</sup> century B.C.

Her exact relationship to Pythagoras was the subject of some speculation.

She has been considered as a the pupil, daughter or wife of Pythagoras, although others believed that she was the wife of Brontinus. Her place of birth and the identity of her father are just as uncertain.

The writings attributed nowadays to Theano (either as the wife of Pythagoras, or as the wife of Brontinus or as another person with that name) were: “Pythagorean Apophthegms”, “Female Advice”, “On Virtue”, “On Piety”, “On Pythagoras”, “Philosophical Commentaries” and “Letters”. None of these writings have been saved except a few fragments and letters of uncertain authorship.

According to M.E. Waite, the Early Pythagoreans included Theano. She was the daughter of Brontinus and she was born in Crotona. In the beginning she was a pupil of Pythagoras and then became his wife. According to Ian Michael Plant, Theano taught mathematics and astronomy at the



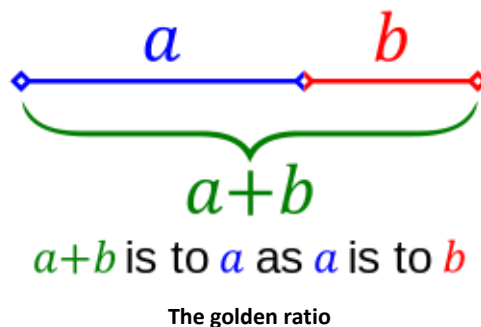
Theano 5<sup>th</sup> - 6<sup>th</sup> century B.C.

Pythagorean School in Croton, in the middle of the 5th century B.C.

According to Mary Ritter Beard, Theano told Hippodamus of Thurium (may be Hippodamus of Miletus) that the treatise “On Virtue” contains the doctrine of the Golden Mean. Two quantities ( $a$  and  $b$  with  $a > b$ ) are in the Golden Ratio (Mean) if their ratio ( $a/b$ ) is the same as the ratio of their sum to the larger of the two quantities  $[(a+b)/a]$ .

The following image gives the algebraic equation of the golden incision and a straight section at a golden incision.

$$\frac{a+b}{a} = \frac{a}{b} = \varphi$$



The principle of the "Golden Ratio" was used in architecture by ancient Greeks as well as by the ancient Egyptians. Some researchers believe that the Parthenon has been built by adopting the principle of the golden ratio.

The mathematician Mark Bar (19<sup>0</sup>-20<sup>0</sup> A.D.) proposed that the golden ratio could be symbolized by the first letter of the name of Greek sculptor Phidias,  $\phi$ .

Some twentieth-century artists and architects, including Le Corbusier and Dalí, have proportioned their works to approximate the golden ratio believing this proportion to be aesthetically pleasing. The golden ratio appears in some patterns in nature, including the spiral arrangement of leaves and other plant parts.

## **Bibliography**

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A sketch of Theano drawn by the pupil

Dimitra Exarchea