

- RYSZARD MIREK, *Euclidean Geometry*.

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Renaissance geometry refers directly or indirectly to Euclidean geometry. Fibonacci's *Practica geometriae* written in 1220 contains a large collection of geometry problems arranged into eight chapters with theorems based on Euclid's *Elements*. Piero della Francesca in his treatise solely devoted to the subject of perspective *De Prospectiva Pingendi*, written possibly by about 1474, refers to many Euclid's theorems. For instance in Proposition 1.13, which is known as the first new European theorem in geometry after Fibonacci, the proof refers to the similarity of the triangles. In *Elements* discussion of these issues is included in the Book VI, Proposition 4 to 8. In turn to determine the height of a man one can use the rectangle. The method refers to Euclidean Proposition 16, Book 4, which involves constructing a fifteen-sided figure, equilateral and equiangular. What, however, is the most interesting these and other propositions can be used in the interpretation of the paintings of Piero della Francesca. Luca Pacioli, the pupil of Piero, in his *De divina proportione* moved the mathematical and artistic problems of proportion, especially the mathematics of the golden ratio and its application in architecture.

The purpose of the study is to describe and compare Renaissance geometry in combination with Euclidean one. In the Renaissance the mathematical sciences were in the center of attention and there was a close union between them and the fine arts.