

Palladio's Quatro Libre

[Narrator]: Palladio's interest in geometry is recorded in his *Quatro Libre* or *Four Books of Architecture*. Though published in the 16th century, the emphasis on geometry was a reflection of 15th century design. Palladio suggested that there were seven ideal room proportions.

The first is a circle that is extruded into a cylinder, which is usually topped with a dome. The second is a square that is extruded into a cube. The third proportion is a double cube. The fourth is a square that is divided in half and then extended by a half – essentially creating a 2-3 relationship. The fifth is a square that is divided into thirds and then extended by a third. Here the relationship is 3-4. The sixth extends that same shape by an additional third – or two-thirds all together. The proportional relationship is 3 to 5.

The seventh space is by far the most complex. It is the golden rectangle. Again, start with a square. Bisect the square. Imagine having a compass in your hand. Place the point at the intersection of the bisecting line and the base of the square. Use that line as the radius to draw an arc that defines the long dimension of the rectangle. Extend the bottom line to meet the curve of the arc. This is the length of the shape. Finish the rectangle and you will have a relationship between the sides that is called the golden rectangle.

Let's look at some more examples of Renaissance artifacts that apply geometry.