

the Greeks felt that these Platonic solids also have a spherical property, where one Platonic Solid fits in a sphere, which alternately fits inside another Platonic Solid, again fitting in another sphere. Paccioli is studying in a transparency the way in which one solid fits inside another. The concept of one sphere fitting inside another sphere is surprisingly frequently seen in different cultures but manifesting in uniquely different ways, as will be accurately described in the author's forth coming book.

The Pythagoreans knew that there were only five regular convex solids, the tetrahedon, cube, octahedron, icosohedron and dodecahedron and each one could be accurately circumscribed by a sphere. The dodecahedron had twelve regular faces, which corresponded to the twelve signs of the Zodiac; it was therefore a symbol of the universe for the Pythagoreans. Moreover, each one of these faces is a pentagon. Euclid described these five regular solids in Book Thirteen of the Elements. They are associated with the name of Plato because of his efforts to relate them to the important entities of which he supposed the world to be made. Plato discusses them in his various dialogues.