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John C. Baez* (baez@math.ucr.edu), John C. Baez, Department of Mathematics, University of California, Riverside, CA 92521. *Who Discovered the Icosahedron?*

It has been suggested that the regular icosahedron, not being found in nature, is the first example of a geometrical object that is the free creation of human thought. Regardless of the truth of this, it is interesting to try to track down the origin of the icosahedron. A scholium in Book XIII of Euclid's *Elements* speaks of "the five so-called Platonic figures which, however, do not belong to Plato, three of the five being due to the Pythagoreans, namely the cube, the pyramid, and the dodecahedron, while the octahedron and the icosahedron are due to Theaetetus." More recently, Atiyah and Sutcliffe have claimed that a regular icosahedron appears among a collection of stone balls in the Ashmolean Museum — balls that were unearthed in Scotland and may date back to 2000 BC. However, Lieven le Bruyn has argued that these authors are the victims of a hoax. We examine the evidence with a critical eye. (Received September 02, 2009)