1047-01-103 **Colin B. P. McKinney*** (cbmckinn@math.uiowa.edu), Department of Mathematics, 14 MacLean Hall, Iowa City, IA 52242-1419. *Archytas of Tarentum: Savior to the Delians.*

It is well known to modern mathematicians that the problem of constructing a cube double a given cube, using only straightedge and compass alone, is impossible. However, the problem is solvable with additional techniques. Many examples date to antiquity, and may be found in Netz' recent translation of Eutocius' commentaries on Archimedes' *On the Sphere and the Cylinder*. One such solution is due to Archytas of Tarentum, who flourished in the early 4th century BCE. In this talk, I will discuss a brief history of the problem, its equivalence to the problem of finding two means proportional, and my work on a 3D visualization of Archytas' solution. (Received January 21, 2009)