

ZMATH 2016a.00827

Coll, Vincent E. jun.; Harrison, Michael

Gabriel's Horn: a revolutionary tale.

Math. Mag. 87, No. 4, 263-275 (2014).

Summary: We generalize hypersurfaces of revolution by allowing the profile curve to be dependent on more than one variable. We call these more general objects spherical arrays and we use them to introduce the reader to volume calculations, which are normally reserved for a more advanced course in differential geometry. The rich symmetry of the spherical arrays allow us to build objects with properties reminiscent of those for which Gabriel's Horn became a *cause célèbre*.

Classification: I60 G90

Keywords: Gabriel's horn; surfaces of revolution

doi:10.4169/math.mag.87.4.263