1046-J1-194   **Mike Huber*** (`huber@muhlenberg.edu`), Dep't of Mathematics and Computer Science, Muhlenberg College, 2400 Chew Street, Allentown, PA 18104. *The Calculus of the Quinto Acuto and Gothic Architecture.*

Are you "looking" for a good example to apply integration to calculate areas and volumes? Ever wonder where to find a practical example involving trig substitution? Then look at, not out, the window. In particular, locate an example of a Gothic window on campus and ask your students to calculate the area enclosed by the window. The rectangular towers, pointed arches, and stained glass tracery of Gothic buildings offer excellent examples of areas for students to calculate via integration. This presentation will offer examples of calculating areas of arched windows and ornate tracery, as well as volumes of domes, that have been used in the integral calculus classroom. (Received August 17, 2008)