

1145-D1-267 **Mike Huber*** (huber@muhlenberg.edu). *The Sierpinski Triangle's Italian Ancestors*. Preliminary report.

The Basilica di San Vitale, in the city of Ravenna, Italy, was consecrated in the sixth century. It joins other churches and baptisteries in Ravenna which contain some of the finest Byzantine mosaics in Italy and Europe. While tourists flock to the church to see the famous mosaics of early Christendom, the Basilica also contains several examples of fractal patterns. In particular, shapes recognizable as the Sierpinski Triangle, with iterations of various degrees, appear on the walls and in the pavimento's octagonal marble floor. This presentation will provide mathematical details and photographs of variations of the recursive triangles, which were constructed up to 1350 years before Sierpinski published his 1915 paper. (Received August 27, 2018)