1145-A0-135Annalisa Crannell*, Franklin & Marshall College, Lancaster, PA 17603. Drawing conclusions
from drawing a square

The Renaissance famously brought us amazingly realistic perspective art. Creating that art was the spark from which projective geometry caught fire and grew. This talk looks directly at projective geometry as a tool to illuminate the way we see the world around us, whether we look with our eyes, with our cameras, or with the computer (via our favorite animated movies). One of the surprising results of projective geometry is that it implies that every quadrangle (whether convex or not) is the perspective image of a square. We will describe implications of this result for computer vision, for photogrammetry, for applications of piece-wise planar cones, and of course for perspective art and projective geometry. (Received August 07, 2018)