

1086-K1-1559 **James Morrow*** (jmorrow@mtholyoke.edu). *Mathematics to Inspire Art to Inspire Mathematics to ...* Preliminary report.

The relationship between the arts and mathematics has been a source of fascination and inspiration to me for many years, and increasingly I have incorporated that relationship into my teaching and my other mathematical work. In this talk I first describe interactions between the arts and mathematics coming from my teaching a geometry course. Part of this course is intended to give students an experience with and vision of connections between mathematics and other disciplines and endeavors. The arts connection is something I have a personal commitment to and which is also supported by a campus-wide “creativity across the curriculum” project. I illustrate a guided close observation by geometry students in an art gallery and I also describe a construction and design assignment in geometry in which students create two works having a common construction element, one with an artistic goal and the other a mathematical goal. Second, I describe a personal experience that started with the artistic goal of creating a present for a friend’s birthday that led to a mathematical goal, which, in turn, led to a new artistic goal. (Received September 23, 2012)