

1125-00-3123

James M Henle* (jhenle@smith.edu). *The Affinity of Mathematics and Music is Cultural not Technical.*

Mathematics has a special relationship with music, stronger and more emotional than with the other arts. I argue that this can't be explained by the obvious mathematical characteristics of music but by looking at how the two affect and are affected by cultural currents. My evidence for this comes from considering mathematics as an art.

As an art, we can discern the same periods (Renaissance, Baroque, Classical, etc.) for mathematics as for the other arts. When we do, we notice that the timeline for mathematics lags behind the timelines of painting, architecture, and literature. The mathematical periods, however, mostly agree with those of music. (Received September 21, 2016)