

1035-N1-1781 **John F. Putz*** (putz@alma.edu), Mathematics and Computer Science Department, Alma College, 614 W. Superior St., Alma, MI 48801. *The Artist's Eye Was Not Enough.*

Early Renaissance artists, as good as they were, did not render convincing representations of physical space. Their works do not make the viewer—the modern one, at least—feel as though he or she is really there, a part of the scene. Later, in the High Renaissance, artists were successfully projecting three dimensions with fidelity onto two, and the difference is striking. What happened in between was the discovery of principles of perspective drawing, probably by Filippo Brunelleschi, and the publication of them by Leon Battista Alberti. We will analyze pieces done before and after this, and then look at the method, as simplified by Piero della Francesca, used in the Renaissance for creating an accurate drawing of a tiled floor, a pavimento. I will show two animations that I have created using Maple: one to demonstrate the method itself, another to explain why it works. (Received September 20, 2007)