<u>Measuring the Heavens:</u>

Ocular Devices and Operatic Truth in Arcadian Rome

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In November of 1680, a Great Comet visible to the naked eye, even during daylight, frightened and astonished many observers throughout Europe. As the first comet to be studied using the telescope, this celestial event garnered much speculation. Publications describing the comet, which ranged from the superstitious to the religious and scientific, displayed wide-ranging concerns about observation, perspective, and truth. In Rome, much of the resulting intellectual activity was gathered by Giovanni Giacomo Komarek (c. 1650-1705), a self-described Bohemian with a publishing shop near the Trevi fountain. My reconstruction of Komarek's catalogue demonstrates that in the wake of the Great Comet an increasing demand for ocular devices, together with a scientific emphasis on experimental method, prompted extensive epistemological debates. As circumstances caused scientists to see the world in new ways, so too *letterati*, artists, and musicians found new ways to define and represent "truth."

Komarek's publications illuminate previously misunderstood connections between the prevailing scientific and literary academies in Rome, and illustrate the pervasiveness of ocularcentric approaches in multiple disciplines. Komarek's authors-from both the Accademia fisicomatematica, organized by scientist Giovanni Giustino Ciampini (1633-1698), and the Accademia degli Arcadi, led by literary historian and critic Giovanni Mario Crescimbeni (1663-1728)emphasized ocular devices in their publications. Ciampini's academy built and experimented with telescopes, microscopes, and the camera obscura, all of which use lenses and mirrors to shape and project images. As a result, one of Komarek's authors from Ciampini's academy expressed frustration that he "had never witnessed so many debates about truth-Patience!" Ciampini himself predicted that, with so many new objects available to human sight, there will be a demand for a new philosophy. I propose that this new philosophy emerged in Crescimbeni's academy. In their publications, Komarek's authors from the Accademia degli Arcadi posited theories of literary and dramatic verisimilitude based on perspective, images, and imagination. The philosopher Gianvincenzo Gravina (1664-1718) in particular posited a new theory for literary style and dramatic representation called the *immagine del vero*, the "image of truth." Since the patrons, composers, and musicians of the Accademia degli Arcadi created the new genre of serious opera based on the literary reform enacted by their colleagues, my analysis of Komarek's catalogue exposes a direct lineage from ocular devices to operatic expression.

In this paper, I will briefly discuss several "monuments" of ocularcentrism drawn from Komarek's catalogue. Then, I will use these as a framework for analyzing scenes involving mirrors and other ocular devices in music dramas created within the *Accademia degli Arcadi*; my examples will be drawn from works by composers such as Carlo Francesco Pollarolo (1653-1723), Alessandro Scarlatti (1660-1725), and George Frideric Handel (1685-1759), who were influential in creating the eighteenth-century operatic style. In addition to demonstrating how scientific culture influenced the debates on verisimilitude in the *Accademia degli Arcadi*, this paper expands our knowledge of how late seventeenth- and early eighteenth-century opera participated in a broad culture of ocularcentrism.