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# /GALILEO, COURTIER /

*The Practice of Science  
in the Culture of Absolutism*

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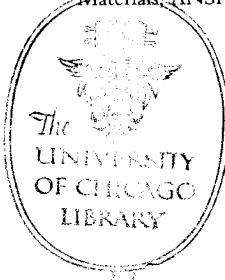
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## *Discoveries and Etiquette*

THE LONGEST AND MOST BOMBASTIC ENTRY in the philosophy section of the catalog of the spring 1610 Frankfurt book fair reads:

Sidereal messenger, unfolding great and very wonderful sights and displaying to the gaze of everyone, but especially philosophers and astronomers, the things that were observed by Galileo Galilei, Florentine patrician and public mathematician of the University of Padua, with the help of a spyglass lately devised by him, about the face of the Moon, countless fixed stars, the Milky Way, nebulous stars, especially about four planets flying around the star of Jupiter at unequal intervals and periods with wonderful swiftness; which, unknown by anyone until this day, the author was recently first to detect.<sup>1</sup>

The short book behind this not-so-subtle advertisement had a very brief but remarkable history, and its publication radically changed Galileo's life and scientific career.

When, in the summer of 1609, Galileo succeeded in constructing a telescope that was remarkably better than those previously built in northern Europe, he was a professor of mathematics at Padua. With this new instrument he made a number of astronomical discoveries that contradicted the dominant Aristotelian cosmology and could be used to support the claims of the Copernicans. In the spring of 1610 he presented his exceptional discoveries in the *Sidereus nuncius*, which he dedicated to

1. *Catalogus universalis pro nundinis Francofurtensibus vernalibus de anno MDCX* (Frankfurt: Latomi), C3v. ("C" does not mean "carta" but designates section "C" of the catalogue. There are no page numbers). The entry is a transcription of most of the frontispiece of Galileo's book. Except for a very minor change, this translation is from Galileo Galilei, *Sidereus nuncius*, trans. Albert Van Helden (Chicago: University of Chicago Press, 1989), p. 26.

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Cosimo II de' Medici, the grand duke of Tuscany. He announced that the surface of the moon was far from smooth, as the philosophers had claimed, and that the number of stars was much greater than had previously been believed. He also made the explosive claim that there were four more planets—which he called Medicean Stars—than the dominant cosmology recognized, and that these circled Jupiter, not the Earth. The *Sidereus nuncius* brought him international visibility and opened for him the doors of Medici patronage. By September 1610 Galileo was back in Florence, with no teaching duties and with the remarkable stipend of a thousand scudi a year.

The award of a thousand-scudi stipend was very unusual in comparison to the stipends of other important artists and officials of the Medici court. Although it is difficult to produce absolute comparisons of courtiers' incomes for they usually exceeded their salaries, Galileo's stipend appears to have been at least three times that of any highly paid artist or engineer and one and a half times that of a *Primo Segretario* such as Belisario Vinta or Curzio Picchena.<sup>2</sup> Galileo's stipend was comparable to that of the *Maggiordomo Maggiore*—the highest court official. Even the sculptor Gianbologna—the most famous among the Medici artists at the beginning of the century and one who was repeatedly courted by two emperors—made in 1606 less than half the salary Galileo would receive a few years later.<sup>3</sup> As far as I can tell, Galileo's salary was among the ten highest of the grand duchy of Tuscany at that time.<sup>4</sup>

2. This is because certain courtiers had bonuses such as meals, wood, candles, and horses in addition to their salaries (ASF, "Depositeria generale 389," pp. 5, 11). For a comparison between Galileo's salary and that of other state officials, and for an analysis of the various sources of officials' income, see R. Burr Litchfield, *Emergence of a Bureaucracy: The Florentine Patricians, 1530–1790* (Princeton: Princeton University Press, 1986), pp. 190–200.

3. Hugh Trevor-Roper, *Princes and Artists* (London: Thames and Hudson, 1976), pp. 109–12, 130. Giambologna made 300 scudi per year in 1602 (ASF, "Miscellanea medicea 474," fol. 3) as well as in 1606 (ASF, "Guardaroba medicea 279," fol. 13). He appears as the highest-paid artist in both those two *ruoli*.

4. The highest court salary in 1588 was that of Orazio Rucellai—the *Maggiordomo Maggiore*—who made 1,000 scudi per year (ASF, "Depositeria generale 389," p. 1); Belisario Vinta, a *Segretario*, made 480 scudi per year (*ibid.*, p. 5); and Ostimil Ricci, court mathematician, made 144 scudi (*ibid.*, p. 9). Rucellai's was still the highest salary in 1599 (ASF, "Guardaroba medicea 255," fol. 2r). In 1609, the second highest salary was that of the *Maggiordomo Iacopo de' Medici*, who made 600 scudi per year (ASF, "Guardaroba Medicea 301," fol. 1r). In 1624, the highest salary at court was that of the new *Maggiordomo Maggiore*, Piero Guicciardini, who made 1000 scudi per year (ASF, "Depositeria generale 396," fol. 36). Matteo Neroni, the court cosmographer, made 120 scudi (*ibid.*, fol. 115). The salaries of the chief commanders of the Tuscan infantry, artillery, and cavalry ranged between 1000 and 2500 scudi per year (see "Relazione dellli Clarissimi Signori Giovanni Michiel et Antonio Tiepolo Cavalieri ritornati Ambasciatori dal Granduca di Toscana alli 9 novembre 1579," in Arnaldo Segarizzi, ed., *Relazioni degli ambasciatori veneti al Senato* (Bari: Laterza, 1916), 3: 256–59, 269).

Having been socialized in a culture that takes for granted the scientific importance of Galileo's astronomical discoveries of 1609–10, we may think it natural that the Medici rewarded him so lavishly. But Galileo did not become philosopher and mathematician to the grand duke because of his contributions to the proof of the Copernican hypothesis. The Medici court was not the Nobel Prize committee *avant la lettre* and Cosimo II was no Copernican. Westfall has argued, quite correctly, that the Medici rewarded Galileo's discoveries not because of their technological usefulness or scientific importance, but because they prized them as spectacles, as exotic marvels.<sup>5</sup> And the Medici must have perceived the satellites of Jupiter as truly exceptional marvels since Galileo's attempts to move to the Medici court, repeatedly frustrated before 1610, were quickly and generously welcomed after these discoveries. The explanation for this exceptional reward is hardly to be found in the appreciation of the scientific significance of Galileo's discoveries by contemporary mathematicians and philosophers. Instead, it is by looking at a quite different audience, that of the Medici court, and at Galileo's representation of his discoveries as fitting court discourse that we can understand why Cosimo II called Galileo back to Florence.

Although courtiers were generally incompetent in astronomy and mathematics, Galileo must have considered the court an important space for his work if, after 1604, he repeatedly tried to leave the university and move there.<sup>6</sup> And it was more than the good salary and freedom from teaching that attracted him. By moving to court, he also hoped to avoid the constraints of the disciplinary hierarchy characteristic of the university, a hierarchy in which mathematicians were subordinated to philosophers in terms of both salary and professional status.<sup>7</sup> Philosophy, it was held, dealt with the real causes of natural phenomena, while mathematics could only deal with their "accidents," that is, with their quantitative as-

5. Richard Westfall, "Scientific Patronage: Galileo and the Telescope," *Isis* 76 (1985): 11–30; and idem, "Galileo and the Accademia dei Lincei," in Paolo Galluzzi, ed., *Novità celesti e crisi del sapere* (Florence: Giunti Barbéra, 1984), p. 199.

6. GO, vol. 10, no. 97, pp. 106–7; no. 99, p. 109; no. 131, pp. 154–55; no. 190, pp. 210–13; no. 209, pp. 231–34; no. 211, p. 235. See also Richard Westfall, "Scientific Patronage," pp. 13–17.

7. This pattern has been identified by Robert S. Westman in "The Astronomer's Role in the Sixteenth Century: A Preliminary Study," *History of Science* 18 (1980): 105–47, and elaborated in his "The Copernicans and the Churches," in David C. Lindberg and Ronald L. Numbers, eds., *God and Nature* (Berkeley: University of California Press, 1986), pp. 73–113. For the Italian scenario, see Mario Biagioli, "The Social Status of Italian Mathematicians, 1450–1600," *History of Science* 27 (1989): 41–95. The connection between Galileo's concern with the title of philosopher and the legitimization of mathematical physics as philosophy was also discussed by Eugenio Garin, "Galileo the Philosopher," *Science and Civic Life in the Italian Renaissance* (New York: Anchor, 1969), pp. 123–25, and Michael Segre, "Galileo as a Politician," *Sudhoff's Archiv* 72 (1988): 75.

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pects. Consequently, mathematicians were not entitled to produce legitimate *physical* interpretations of natural phenomena.<sup>8</sup>

But if a mathematician as mathematician could not become a philosopher in the university, he could do so at court, where one's social and cognitive status was determined less by one's discipline than by the prince's favor. As a Roman court proverb put it, the courtier is like paper money whose exchange value is set by the prince only.<sup>9</sup> Consequently, the court was a social institution in which Galileo could obtain the title of philosopher which, in turn, would give him the standing to argue legitimately for the philosophical significance of the Copernican theory and for the mathematical analysis of natural phenomena.

### Stars in Context

Some reasons for the Medici's interest in the moons of Jupiter are easy to grasp. As Galileo asserted in the dedication of the *Sidereus nuncius*, these new planets were monuments to the Medici dynasty.<sup>10</sup> Moreover, they were monuments of exceptional durability and worldwide visibility—at least for audiences equipped with good telescopes. But there were other reasons behind the Medici's enthusiasm for Galileo's discoveries, reasons fully apparent only to a Florentine audience familiar with the mythology the Medici had been articulating since Cosimo I established the dynasty in the middle of the sixteenth century. In this mythology, a correspondence was drawn between the cosmos and Cosimo, and Jupiter was regularly associated with Cosimo I, the founder of the dynasty and the first of the "Medicean gods."<sup>11</sup> Consequently, while Galileo could have dedicated the newly discovered planets to any patron, the Medici were in the position to fully appreciate (and reward) the mythological significance of Galileo's discoveries.

Although the Medici had been the de-facto rulers of an allegedly republican Florence since the fifteenth century, the dukedom itself was of much more recent origin. In fact, Cosimo I became duke of Florence in 1537 and was made grand duke of Tuscany only in 1569. During the 1540s he

8. Peter Dear, "Jesuit Mathematical Science and the Reconstitution of Experience in the Early Seventeenth Century," *Studies in History and Philosophy of Science* 18 (1987): 133–75; Nicholas Jardine, *The Birth of History and Philosophy of Science* (Cambridge: Cambridge University Press, 1984), pp. 225–57; and Robert S. Westman, "Kepler's Theory of Hypothesis and the 'realist dilemma,'" *Studies in History and Philosophy of Science* 3 (1972): 233–64.

9. Francesco Liberati, *Il perfetto Maestro di Casa* (Rome: Bernabò, 1658), p. 9.

10. Galilei, *Sidereus nuncius*, pp. 29–33.

11. Giorgio Vasari, *Ragionamenti di Giorgio Vasari sopra le invenzioni da lui dipinte in Firenze nel Palazzo di loro Alteze Serenissime con lo Illustrissimo ed Excellentissimo Don Francesco de' Medici* [published posthumously by Vasari's nephew in 1588], in Gaetano Milanesi, ed., *Le opere di Giorgio Vasari* (Florence: Sansoni, 1882), 8: 85.

had to create the political and administrative structure of the new state, along with a new political mythology that would stabilize the Medici rule and present it as a dynastic one.<sup>12</sup> After becoming duke of Florence, Cosimo needed to establish a court out of almost nothing. The powerful Florentine families were to be transformed from former political leaders into a docile court aristocracy, and the new mythology that represented the ducal rule as natural and necessary was to indicate the role the powerful Florentine families had to assume within it.<sup>13</sup>

Cosimo's strategy was to represent the Medici rule as Florence's manifest destiny. The city's horoscope, so commonly cast since the Middle Ages, was normalized to suggest the astrological necessity of Medici rule by linking that rule to the history and fate of the city.<sup>14</sup> New Medici-oriented histories and Medici-sensitive reinterpretations of ancient myths were commissioned, while Medici-related imagery was introduced in Florentine art.<sup>15</sup> Most important, Medici-controlled academies—among them the Accademia Fiorentina and the Accademia del Disegno—were established to manage this cultural program.<sup>16</sup>

12. Standard works on the period are Rugguccio Galluzzi, *Istoria del granducato di Toscana sotto il governo della Casa Medici* (Florence: Cambiagi, 1781); Furio Diaz, *Il Granducato di Toscana: I Medici* (Turin: UTET, 1976); and Giorgio Spini, ed., *Architettura e politica da Cosimo I a Ferdinando I* (Florence: Olschki, 1976).

13. R. Burr Litchfield, *Emergence of a Bureaucracy: The Florentine Patricians 1530–1790* (Princeton: Princeton University Press, 1986). Glimpses of Florentine courtly life can be found in P. F. Covoni, *Don Antonio de' Medici al Casino di San Marco* (Florence: Tipografia Cooperativa, 1892); Gaetano Pieraccini, *La stirpe dei Medici di Cafaggiolo* (Florence: Nardini, 1986); Graziella Silli, *Una corte alla fine del Cinquecento* (Florence: Alinari, 1927); Gaetano Imbert, *La vita fiorentina nel Seicento* (Florence: Bemporad, 1906); and Angelo Solerti, *Musica, ballo e drammatica alla corte medicea dal 1600 al 1637* (Florence: Bemporad, 1905). Solerti's book reproduces large sections of the official manuscript court diary.

14. The relationship between the city's horoscope and Medici fate up to Cosimo I is elaborated in Janet Cox-Rearick, *Dynasty and Destiny in Medici Art* (Princeton: Princeton University Press, 1984). On the early-Renaissance city horoscopes in Florence, see Richard Trexler, *Public Life in Renaissance Florence* (New York: Academic Press, 1980), pp. 73–84.

15. Probably the best example is Benedetto Varchi, *Storia fiorentina*, ed. Gaetano Milanesi (Florence: Le Monnier, 1857–58), 3 vols. On Medici imagery in art, see Cox-Rearick, *Dynasty and Destiny*, p. 231.

16. The Accademia Fiorentina, established in 1540, was the first academy sponsored and controlled by the Medici. It coordinated Cosimo I's cultural politics based on the normalization of Florentine culture around the axis of linguistic identity. See Sergio Bertelli, "Egemonia linguistica come egemonia culturale e politica nella Firenze Cosimiana," *Bibliothèque d'Humanisme et Renaissance* 38 (1976): 249–83; and Cosimo di Filippo Bareggio, "In nota alla politica culturale di Cosimo I: L'Accademia Fiorentina," *Quaderni storici* 23 (1973): 527–74. The Accademia del Disegno, established in 1564 and run by a "lieutenant" appointed by Cosimo, was also a component of his cultural system. Its main functions were to coordinate the work of visual artists working for the Medici and to make sure that the codes of the Medici cultural politics were respected. In fact, the artists of the Accademia del Disegno managed large political spectacles ranging from weddings to funerals to visits of foreign dignitaries.

Although Cosimo did not go so far as to commission a family history in the form of a Greek-style theogony, he had classical theogonies allegorically reinterpreted to resemble the history of the house of Medici. This mythological program was best articulated in Vasari's frescoes decorating the Apartment of the Elements and the Apartment of Leo X in the Palazzo della Signoria—the first Medici court palace, later known as Palazzo Vecchio.<sup>17</sup>

The project's basic schema is clear enough. The Apartment of the Elements was a kind of Olympus divided into several rooms, each dedicated to a specific god (Hercules, Jupiter, Ops, Ceres, Saturn) or to a predivine entity such as the primordial "elements" (fig. 1). Right below the Olympus of the Apartment of the Elements we find the Medici pantheon—the Apartment of Leo X. Each room of the Apartment of Leo X is dedicated to a member of the Medici family who was instrumental in establishing the dynasty (fig. 2).

Each room dedicated to a Medici in the Apartment of Leo X was put, as Vasari says, in a plumb-line relation with a god-dedicated room in the Apartment of the Elements directly above it. The frescoes of each room downstairs present a mythologized history of the member of the Medici family the room honors. Each history was made to mirror as closely as possible the classical theogony of the corresponding god. The Room of the Elements, the primordial entities that allowed for the formation of all things, corresponded to the Room of Leo X, the Medici pope who made the emergence of the Medici dynasty possible. As Vasari put it, "There is nothing painted upstairs that does not correspond to something painted downstairs."<sup>18</sup> The heavenly order legitimized and naturalized the earthly one. Appropriately elegant stairs ensured communication between the two floors.

Vasari describes in detail the intricacies of the entire Medici mythology as presented in these frescoes.<sup>19</sup> What we need to consider here is the specific correspondence established in them between Jupiter (the greatest of the gods) and Cosimo I (the founder of the grand duchy of Tuscany), for that mythological relation played a crucial role in Galileo's patronage tactics.

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nitaries. The Accademia del Disegno was a kind of "department of public relations" of the Medici court. For bibliographical references, see note 22 below.

17. Ettore Allegri and Alessandro Cecchi, *Palazzo Vecchio e i Medici* (Florence: SPES, 1980), pp. 55–182. The letters between Vasari and Cosimo's humanistic advisors on the iconography and emblematics of the Apartments are in Karl Frey, ed., *Il carteggio di Giorgio Vasari* (Munich: Muller, 1923), vol. 1, no. 220, pp. 409–12; no. 221, pp. 412–14; no. 232, pp. 436–37; no. 234, pp. 438–41; no. 236, pp. 446–50. The official nature of the mythological narrative of the two Apartments is confirmed by its being designed by Vincenzo Borghini—the first "lieutenant" of the Accademia del Disegno.

18. Vasari, *Ragionamenti*, 85. 19. Ibid.

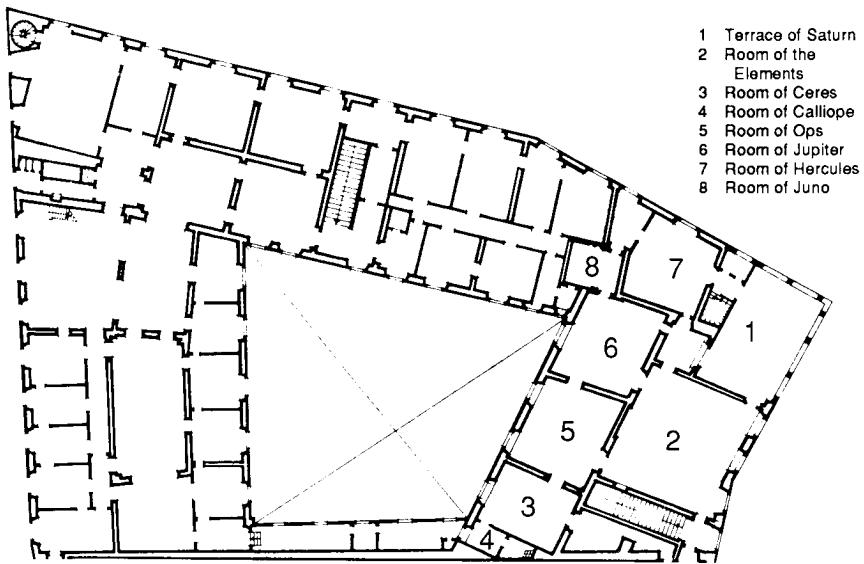


Fig. 1. Apartment of the Elements, adapted from Ettore Allegri and Alessandro Cecchi, *Palazzo Vecchio e i Medici* (Florence: SPES, 1980), p. xxv.

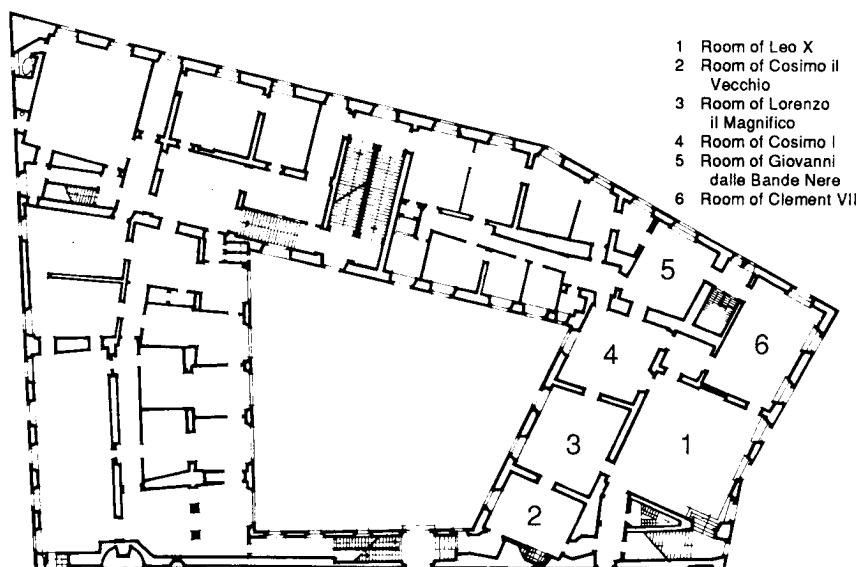


Fig. 2. Apartment of Leo X, adapted from Ettore Allegri and Alessandro Cecchi, *Palazzo Vecchio e i Medici* (Florence: SPES, 1980), p. xxi.

The correspondence between the room of Jupiter and that of Cosimo I is the pivot for the mythological narratives developed throughout the paintings of the two apartments. The paintings in the Room of Jupiter, which present his childhood, are in fact tied to Cosimo as well. Born of Ops and Saturn, the child Jupiter was saved from the father's cruelty (Saturn tended to eat his offspring) by his mother, who hid him in a cave in Crete. There, the infant Jupiter was reared by two nymphs. One of them, Amalthea, was represented as a goat and was allegorically associated with divine providence, while Melissa, the other nymph, was an allegory of divine knowledge. The message was that Cosimo absorbed, literally, those virtues in the cradle. In memory of Amalthea, Jupiter added the sign of Capricorn to the zodiac. The seven stars of Capricorn became emblems of the seven virtues, three theological and four moral. Quite conveniently, Capricorn happened to be Cosimo's sign, thereby confirming the destiny uniting the first grand duke and Jupiter. Thus Cosimo was endowed with divine providence and knowledge by Jupiter and received the seven virtues from Capricorn.

In the dedication of the *Sidereus nuncius* to Cosimo II, Galileo himself introduced the analogy between the Medicean Stars and Cosimo I's virtues, some moral, others "Augustan." He claimed that young Cosimo obtained those same virtues (which, according to Galileo, he displayed all the time) directly from Jupiter, which was just above the horizon at the moment of his birth. Those virtues were "emanating" from the four stars which—like innate virtues—always revolved very closely around Jupiter and never abandoned him. Therefore, given the link between Jupiter and Cosimo I, Galileo was suggesting that Cosimo I passed on his (and Jupiter's) virtues to his successor through the Medicean Stars, and that Galileo himself, by revealing these stars, was somehow midwife to this astrologico-dynastic encounter. The correspondence between the Medicean Stars and the four moral virtues was accepted by the Medici's humanistic advisors: even in the thirty years following Galileo's condemnation, the four moral virtues were used as painterly allegorical representations of the four stars.

These mythologies were more than a sign of the Medici's imaginative pretensions. They constituted the "master narrative" that informed the imagery used in public political ceremonies and festivals as well as the subject matter of court poetry, theater, painting, and opera.<sup>20</sup> They offered a

20. Genealogies of the gods were a common genre to celebrate ruling families. On the use of this genre in theatre, see Cesare Molinari, *Le nozze degli dei* (Rome: Bulzoni, 1968). On the use of mythological imagery and emblems in Florentine civic pageantries see Annamaria Petrioli Tofani and Giovanna Gaeta Bertelà, *Feste e apparati medicei da Cosimo I a Cosimo II* (Florence: Olschki, 1969); and Arthur R. Blumenthal, *Theater Art of the Medici* (Hanover: University Press of New England, 1980). See also David Moore Bergeron, *English Civic Pagantry 1558–1642* (London: Arnold, 1971); Roy Strong, *Art and Power: Renaissance Festivals*

framework for court culture. When needed, this mythological imagery could be expanded by means of emblematic translations, as conveniently listed in sixteenth-century catalogues or dictionaries of emblems like those of Cesare Ripa, Paolo Giovio, and Andrea Alciati.<sup>21</sup> The entire cultural framework was maintained and articulated by Medici-controlled institutions such as the Accademia Fiorentina and the Accademia del Disegno.<sup>22</sup>

Court culture itself was permeated by these mythologies from the time of Cosimo I. Familiarity with them allowed the courtiers and the Florentine upper classes to engage in the game of interpreting the emblematic narratives displayed in Medici ceremonies and other political semiologies.<sup>23</sup> As indicated by Baldassarre Castiglione's *Book of the Courtier*, Stefano Guazzo's *Dialoghi piacevoli*, or Torquato Tasso's *De l'impresa*, skill in emblematics was a tool required of those who wanted to engage in courtly life.<sup>24</sup> As Castiglione put it, "Sometimes other discussions would turn on a variety of subjects, or there would be a sharp exchange of quick retorts; often "emblems" as we nowadays call them, were devised; in

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1450–1650 (Berkeley: University of California Press, 1984); and Randolph Starn and Loren Partridge, *Arts of Power* (Berkeley: University of California Press, 1992).

21. Paolo Giovio, *Dialogo dell'impresa militari e amorose* (Rome, 1551); Andrea Alciati, *Emblematum liber* (Augsburg: Steyner, 1531); Cesare Ripa, *Iconologia* (Rome: Gigliotti, 1593; Lepilo Facis, 1603 [this is the first illustrated edition]). A standard secondary source is Mario Praz, *Studies in Seventeenth-Century Imagery* (Rome: Edizioni di Storia e Letteratura, 1964). See also Peter M. Daly, *Literature in the Light of the Emblem* (Toronto: University of Toronto Press, 1979).

22. On the Accademia del Disegno, see Zygmunt Wazbinski, *L'Accademia medicea del Disegno a Firenze nel Cinquecento* (Florence: Olschki, 1987), 2 vols.; Karen-edis Barzman, "Liberal Academicians and the New Social Elite in Grand Ducal Florence," in Irving Lavin, ed., *World of Art: Themes of Unity and Diversity* (University Park: Pennsylvania State University Press, 1989), 2: 459–63; Mary Ann Jack, "The Accademia del Disegno in Late Renaissance Florence," *Sixteenth Century Journal* 7 (1976): 3–20; For bibliographical references on the Accademia Fiorentina, see note 16 above.

23. Annamaria Petrioli Tofani, "Contributi allo studio degli apparati e delle feste mediche," *Firenze e la Toscana nell'Europa del '300* (Florence: Olschki, 1983), 2: 645–61; Annamaria Petrioli Tofani and Giovanna Gaeta Bertelà, *Feste e apparati medicei da Cosimo I a Cosimo II* (Florence: Olschki, 1969); Benedetto Betti, *Ordine dell'apparato fatto da' Giovani della Compagnia di San Gio. Evangelista* (Florence: Giunti, 1574); Alois Maria Nagler, *Theatre Festivals of the Medici 1539–1637* (New Haven, Conn.: Yale University Press, 1964); and Strong, *Art and Power*, pp. 3–74, 126–52. See also David Cannadine and Simon Price, eds., *Rituals of Royalty* (Cambridge: Cambridge University Press, 1987); and Sean Wilentz, ed., *Rites of Power* (Philadelphia: University of Pennsylvania Press, 1985).

24. Stefano Guazzo, *Dialoghi piacevoli* (Venice: Bertano, 1585); Torquato Tasso, *Il conte, o vero de l'impresa* (1594), reprinted in Cesare Guasti, ed., *I dialoghi di Torquato Tasso* (Florence: Le Monnier, 1901), 3: 361–444. Skills in emblematics became so entrenched in upper culture that the Jesuits began to teach emblematics as part of the rhetoric courses (Jennifer Montagu, "The Painted Enigma and French Seventeenth-Century Art," *Journal of the Warburg and Courtauld Institutes* 31 [1986]: 307, 312).

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which discussions a marvelous pleasure was had.”<sup>25</sup> Emblematics provided the courtiers with more than an engaging parlor game; it also was a powerful tool for self-fashioning.<sup>26</sup> Court society affirmed its own social identity by differentiating itself from the lower classes, which—although participating as spectators of some of those public ceremonies—could not fathom their full meaning.<sup>27</sup> Emblematics was to court spectacles what etiquette was to court behavior: it differentiated social groups and reinforced social hierarchies by controlling access to meaning.<sup>28</sup>

This mythologico-emblematic framework of Medici court society and culture constituted the background for Galileo’s representation of his astronomical discoveries as emblems of the Medici dynasty. If he wanted to become a courtier by differentiating himself from the other practitioners of a low-status discipline like mathematics, Galileo had to use the same codes court society had adopted to differentiate itself successfully from the noncourtly masses.<sup>29</sup>

### Courtiers, Pedants, and Mathematicians

Galileo’s understanding of the courtly cultural context did indeed differentiate him from most of the other Italian mathematicians of the time.

25. Baldassarre Castiglione, *Book of the Courtier*, trans. Charles Singleton (Garden City, N.Y.: Anchor Books, 1959), p. 17.

26. On the use of emblematics as parlour games, see Thomas Frederick Crane, “Parlor Games in Italy in the Sixteenth Century,” *Italian Social Customs of the Sixteenth Century* (New Haven, Conn.: Yale University Press, 1920), pp. 263–322.

27. Various authors have noticed this process of semiological control. Roy Strong (*Art and Power*, p. 27) mentions that spectators at Cosimo I’s marriage in 1566 complained about the intricacy of the imagery. After 1630, once Florentine court society became both socially and spatially enclosed, less obscure metaphors began to be utilized in court spectacles (*ibid.*, pp. 31–32). In Vasari’s *Ragionamenti* we find that even Don Francesco de’ Medici mentions the obscurity of the meaning of the imagery presented by Vasari: “Prince: Giorgio, today you make me hear things that I never thought were under these colors and images” (p. 22). Given that the dialogue is written by Vasari, such a statement means that Vasari thought of the perceived obscurity of his imagery as a praise of his skills in managing the codes of dynastic imagery.

28. On the development of etiquette, see Norbert Elias, *The History of Manners* (New York: Pantheon, 1982); *Power and Civility* (New York: Pantheon, 1982); and idem, *The Court Society* (New York: Pantheon, 1983).

29. As shown by Maria Luisa Altieri Biagi (*Galileo e la terminologia tecnico-scientifica* [Florence: Olschki, 1965]), Galileo maintained a complex relationship with the mechanical connotations of his discipline. On the one hand, he tried to downplay or even reject them. One example is Galileo’s very negative reaction to Elsevier changing the title of his 1638 *Two New Sciences* in ways that he saw as ruining the “noble” image of the book and reducing it to a “vulgar” text (*ibid.*, pp. 22–23). On the other hand, he used engineering or common terms to poke fun at the Aristotelian and Jesuit use of philosophical language, which he considered

His exceptional career and the trajectory of socioepistemological legitimization he pursued are also related to his cultural background (a quite unusual one for a mathematician) and to the perceptions of the patronage system associated with it.

Obtaining a court position required much more than professional competence. Not only were appropriate patronage connections necessary, but one also needed to be courtly, that is, to have adequate social skills.<sup>30</sup> The issue of the client's competence in courtly etiquette emerges often in Galileo's correspondence and in other texts from that time. When Galileo was asked by the Medici secretary Curzio Picchena about the physician Minadói (a professor at Padua who was being considered for a court appointment) he replied that Minadói was "of pleasant and honest manners and customs, and, in my view, able to do well at court no less than in the classroom."<sup>31</sup> Similarly, in writing to Vinta on behalf of the philosopher Papazzoni, who was interested in a chair of philosophy at Pisa, Galileo remarked that he was "pleasant and of gracious conversation," intimating that he would be at ease at court, an environment which—as a major professor at Pisa—Papazzoni would have to frequent.<sup>32</sup>

If competence in court life and culture could not be assumed for a physician or a philosopher, it was quite exceptional when found in a mathematician. For instance, in his description of the Roman court in 1611, Girolamo Lunadoro took a sudden two-page detour to sing the praises of Giovanni Battista Raimondi, a mathematician and polymath who translated and commented on Euclid and Archimedes. Raimondi is described as an old sage whose profound technical knowledge of mathematics and philosophy has not turned him asocial. He is "clean and proper in the way he dresses—something that is not usual among philosophers" and, more important, he is very pleasant in conversation. He does not show off his knowledge and does not try to put down others, and when he talks about

stuffy (*ibid.*, p. 34). As we will see, this ambivalence is emblematic of Galileo's new socio-professional role.

30. The adoption of the lifestyle and culture of the upper classes was also a prerequisite for artists who wanted access to social legitimization and status; see Francis Haskell, *Patrons and Painters* (New Haven, Conn.: Yale University Press, 1980), pp. 18–19.

31. *GO*, vol. 10, no. 150, p. 168 (emphasis mine).

32. *GO*, vol. 11, no. 461, p. 27 (emphasis mine). In writing a letter of recommendation for his client Niccolò Aggiungi, who was up for a chair at Padua, Galileo wrote that Aggiungi would have pleased the Venetians "not only in the teaching of mathematics, but also for the exquisite intelligence he has for the study of the humanities, that is known to be highly esteemed particularly by the Venetian nobility. As far as I can judge, I do not think [Aggiungi] is second to anybody in this subject, being a gifted writer of both prose and verse, and endowed with eloquence and quickness of wit to honor any eminent chair." This letter is not included in *GO*, but was discovered and published by Maria Francesca Tiepolo in "Una lettera inedita di Galileo," *La cultura* 17 (1979): 60.

mathematics or philosophy or theology, he does so with clarity, elegance, and propriety.<sup>33</sup>

Lunadoro's insistence on Raimondi's exceptionality exposes cultural assumptions about the noncourtliness of mathematicians and, sometimes, philosophers. These assumptions reflected class and disciplinary biases, but they also had some empirical evidence behind them.<sup>34</sup> One's ability to cross the social boundaries between the university and the court, to gain social and epistemological legitimization, could not be taken for granted. Galileo himself was certainly helped in his own crossing by being the son of a musician who was well known at court and being a member of an old family who had some degree of nobility and political visibility earlier in the Renaissance. It may not be a coincidence that Galileo and Giovanni Battista Benedetti—the only two Italian mathematicians who received (or used) the title of philosopher at court—were people who could claim some degree of nobility.<sup>35</sup>

Galileo was not wealthy but knew how to present himself as a *gentiluomo*. He knew Giovanni della Casa's classic etiquette textbook, the *Galateo*, and owned a number of texts on rhetoric and literary composition.<sup>36</sup> On the frontispieces of his books he styled himself as a "Florentine Patrician" even before becoming the "Philosopher and Mathematician of the Grand Duke." His Latin was elegant and the style of his Florentine language remarkable. He knew how to write for a courtly audience. As he wrote to Prince Leopold in 1640, he disagreed with those who

would like to see philosophical doctrines compressed into the most limited space, and would like people always to use that stiff and con-

33. Girolamo Lunadoro, *Relatione della corte di Roma* (Rome: Frambotto, 1635), pp. 63–65. Lunadoro's text was completed in January 1611. That Raimondi was perceived not only as a mathematician but also as a gentleman is confirmed by his status within the Medici payroll (he was a Medici employee in Rome). In the *ruolo* of July 1610 he is included in the category of court gentlemen, the same one in which Galileo would later be included (ASF, "Depositeria generale 389," fol. 82r).

34. Biagioli, "Social Status of Italian Mathematicians"; Harcourt Brown, *Scientific Organizations in Seventeenth-Century France* (Baltimore: Johns Hopkins University Press, 1934), p. 87; Steven Shapin, "Who Was Robert Hooke?", in Michael Hunter and Simon Schaffer, eds., *Robert Hooke: New Studies* (Woodbridge, Suffolk: Boydell, 1989), pp. 253–85; and Robert Iliffe, "'In the Warehouse': Privacy, Property and Priority in the Early Royal Society," *History of Science* 30 (1992): 29–68.

35. On this issue, see Biagioli, "Social Status of Italian Mathematicians," 49–50; and Paul Lawrence, *The Italian Renaissance of Mathematics* (Geneva: Droz, 1975), p. 155.

36. Galileo was familiar with della Casa's writings. He cited him in his "Considerazioni al Tasso" (*GO*, vol. 9, p. 133). His library contained a good number of texts of rhetoric and literary composition, as well as "how to" books for the courtier, such as *Idea di varie lettere usate nella Segreteria d'ogni Principe* (Antonio Favaro, "La libreria di Galileo Galilei," *Bullettino di bibliografia e storia delle scienze matematiche e fisiche* 19 [1886]: 219–93, esp. 273–75). Galileo

cise manner, that manner bare of any grace or adornment typical of pure geometricians who would not use even one word that was not absolutely necessary. Quite to the contrary, not only do I not see it as a problem if a treatise dedicated to a specific topic includes other various materials (unless they are completely extraneous and attached to the main argument without any real coherence), but, in fact, I appreciate it. The nobility, the greatness, and the magnificence that makes our actions marvelous and excellent does not consist of necessary things (although their absence would be the greatest defect), but of those that are not necessary. . . .<sup>37</sup>

If he often wrote in a Rabelaisian or Ruzantian literary style marked by sarcasm and jokes that blurred into insults it was not because he came from a lower-class background. Galileo was not the smart “man of the street” who achieved success at court. Like Ruzante before him, Galileo knew how to play “popular culture,” how to display spontaneity and unaffected wit to attract a high-culture audience eager to take a break from an increasingly rigid court etiquette.<sup>38</sup> Galileo’s somewhat abrasive style was not addressed to the village marketplace but to an upper-class audience. It was an antidote to an overworked courtly *sprezzatura* which edged over into pedantry. For example, the *Dialogo de Cecco di Ronchitti*, which Stillman Drake has, I think correctly, attributed to Galileo, was written in vulgar Paduan dialect but it must have been addressed to an upper-class audience if it was dedicated to Antonio Querengo, one of Padua’s most important patrons of the arts.<sup>39</sup>

It is to the court’s rhetorical contempt for pedantry that we can trace the style of Galileo’s abrasive attacks on the Peripatetics.<sup>40</sup> The Simplicio of Galileo’s dialogues (or the philosopher of Cecco’s *Dialogo*) was not only

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learned rhetoric quite well, as shown by Maurice Finocchiaro, *Galileo and the Art of Reasoning* (Dordrecht: Reidel, 1980); and Janet Dietz-Moss, “The Rhetoric of Proof in Galileo’s Writings on the Copernican System,” in William A. Wallace, ed., *Reinterpreting Galileo* (Washington, D.C.: Catholic University of America Press, 1986), pp. 179–204.

37. “Lettera al Serenissimo Principe Leopoldo di Toscana,” in GO, vol. 8, p. 491.

38. Ruzante (Angelo Beolco) was by no means a member of the lower classes. His use of vernacular and of aggressive, obscene language was a product for the upper classes, not for the village marketplace (Ludovico Zorzi, “Introduzione,” in Ruzante, *L’anconitana* [Turin: Einaudi, 1965], pp. v–xi). On the possible connection between Galileo’s “Ruzantian” style and his use of common language, see note 29.

39. *Dialogo de Cecco di Ronchitti da Bruzene in perpuoso de la stella nova* (Padua: Tozzi, 1605), translated in Stillman Drake, *Galileo Against the Philosophers* (Los Angeles: Zeitlin and Ver-Brugge, 1976), pp. 33–53.

40. On the literary culture of the court and the place of rhetoric in it, see Marc Fumaroli, *L’âge de l’éloquence: Rhétorique et res literaria de la Renaissance au seuil de l’époque classique* (Geneva: Droz, 1980).

Galileo's philosophical straw man but also a representative of what court culture perceived itself to be rejecting.<sup>41</sup> Starting with Annibal Caro and continuing with Galileo's friend Jacopo Soldani, university philosophers had been a target of the satires of court writers, humanists, and academicians.<sup>42</sup> In his *Contro i peripatetici* (a poem he published in 1623 to celebrate Galileo's *Assayer*), Soldani attacked the "bum from Stagira" and his "herd of sheep" for practicing "a philosophy that closes and ties down knowledge with ropes."<sup>43</sup> In supporting Galileo's cause, he tried to undermine the philosophers not by attacking them on scientific or methodological grounds but by playing the trope of the philosophers' stuffy, servile, and myopic knowledge—a form of culture that was unacceptable to the courtly audience he was addressing.

This trope emerges in several other courtly texts. In his 1624 treatise on the court, Pellegrini dedicated a chapter to "The Qualities of the Scholar Which Are Inconvenient to the Courtier" in which he described philosophers who are unlikely to attract princely favor because of their "rigid manners and uncivil appearance." Also, "unaccustomed to the appreciation of pleasure, they shun it and in so doing they annoy those [the princes] who, instead, seek it. Thus, their conversation is rough and unpleasant."<sup>44</sup> Elsewhere in the book, Pellegrini invited the philosopher seeking a career at court as advisor to the prince not to annoy him with "sophistical and tedious questions" about state matters.<sup>45</sup> In poking fun at boring court literati, Agostino Mascardi—the leader of Cardinal Savoia's trend-setting Accademia dei Desiosi—mentioned the term "essential" and wrote immediately after it in parentheses "Forgive me for using scholastic terminology."<sup>46</sup> In a move that reminds us of Lunadoro stressing that, unlike most philosophers, Raimondi was clean and well

41. The contempt for pedantry on the part of the more culturally sophisticated was by no means an exclusively Italian phenomenon. For the French scenario, see Londa Schiebinger, "Battles over Scholarly Style," *The Mind Has No Sex?* (Cambridge, Mass.: Harvard University Press, 1989), pp. 119–59, esp. p. 156. For England, see Steven Shapin, "A Scholar and a Gentleman," *History of Science* 29 (1991): 279–327.

42. Annibal Caro, in his 1543 *Comedia degli straccioni*, written for his patron Pier Luigi Farnese (nephew of Paul III), has Pilucca (a member of the Roman demimonde) end a discussion concerning a planned fraud by praising his accomplice Marabeo for his "doctrine" (i.e., his scheme): "PILUCCA: Very well, I like this doctrine. Whose is it? Of the Peripottetici [pun on Peripatetics and "potta" (cunt)] or of the Stronzici [pun on Stoics and "stronzi" (shits)]?" (Annibal Caro, *Comedia degli straccioni* [Turin: Einaudi, 1967], p. 24).

43. Quoted in Alberto Asor Rosa ed., *I poeti giocosi dell'età barocca* (Bari: Laterza, 1975), p. 167. On Galileo's literary style and its audience, see also Robert S. Westman, "The Reception of Galileo's Dialogue," in Galluzzi, *Novità celesti e crisi del sapere*, pp. 331–35.

44. Matteo Pellegrini, *Che al savio è convenevole il corteggiare libri IIII* (Bologna: Tebaldini, 1624), p. 109.

45. Ibid., p. 292.

46. Agostino Mascardi, "Discorso ottavo," *Prose vulgari* (Venice: Baba, 1653), p. 148.

dressed, the poet Giambattista Marino, in his famous poem *Adone*, presented philosophy as dirty, badly dressed, and with unkempt hair.<sup>47</sup> To a courtly audience, an old-fashioned Aristotelian philosopher was as “technical” (and therefore as unfashionable) as a mathematician.

That Galileo had access to court as a teenager must have helped him avoid these pitfalls.<sup>48</sup> He inherited from his father, Vincenzio, some of his early connections with the Florentine court as well as the knowledge of courtly etiquette.<sup>49</sup> Vincenzio was a well-known musician and music theorist, and a member of the Camerata de’ Bardi, an institution that could be considered Florence’s first music academy. That a career at court was not an unusual thought for a Galilei is shown by the life of Galileo’s brother Michelangelo, who—a musician like his father—worked at various European courts.

Galileo’s early literary productions were all embedded in Florentine academic and courtly culture of the period. His oration on the geometry of Dante’s *Inferno*, presented in 1588 at the Accademia Fiorentina (whose consul he would become in 1620), dealt with what was probably the canonical text of that institution.<sup>50</sup> His critique of Tasso and praise of Ariosto were equally the product of the culture of Florentine academies.<sup>51</sup> Quite unoriginally, Galileo represented the official position of the Florentine Accademia della Crusca—an academy to which Galileo was elected in

47. Giambattista Marino, *L’Adone* (Paris, 1623; reprint, Turin: Paravia, 1922), p. 157 (tenth canto, no. 130). This is the same canto in which Marino praises Galileo, his telescope, and his discoveries.

48. We know that he had early access to court because it was there that he met his future mathematics teacher, Ostialo Ricci.

49. Also, participation in patrician salons like that of Morosini in Venice or of Pinelli in Padua (as well as the many visits to the Medici court over the summer as Cosimo’s mathematics tutor) helped Galileo develop some familiarity with the court’s proper style of argumentation and behavior. Galileo himself admitted having undergone such a process of socialization in a letter to Michelangelo Buonarroti, Jr., in December 1609: “. . . knowing now what are the very honorable manners and habits of the Florentine nobility . . .” (GO, vol. 10, no. 257, p. 271).

50. Galileo Galilei, “Due lezioni all’Accademia Fiorentina . . .”; in GO, vol. 9, pp. 29–57. Dante’s work was one of the institutional foci of the Accademia Fiorentina because of its relation to the Florentine vernacular. The specific issue of the geometry of Dante’s *Inferno* also received attention, notably by the architect Manetti (Antonio Manetti, “Circa il sito, forma e misura dell’Inferno di Dante Alighieri, poeta eccellentissimo,” in Ottavio Gigli, ed., *Studi sulla Divina Comedia di Galileo Galilei, Vincenzo Borghini ed altri* [Florence: Le Monnier, 1855], pp. 35–114). Galileo’s lectures must have received some attention if they were still remembered in 1594 (see GO, vol. 10, no. 54, p. 66). On Galileo’s consulate at the Accademia Fiorentina, see GO, vol. 19, pp. 444–45.

51. Galileo Galilei, “Considerazioni al Tasso,” in GO, vol. 9, pp. 59–148; and idem, “Postille all’Ariosto,” in ibid., pp. 149–94. The dates of these two works are uncertain. Favaro seems to think that the “Considerazioni” were probably written in the 1590s (ibid., pp. 12–14).

## CHAPTER TWO

1605—which sided with Ariosto against Tasso.<sup>52</sup> Debates on such issues must have been common in academies since, about two decades later, Mascardi remarked on “the silliness of those who nauseate the literati by getting into fights over the precedence between Ariosto and Tasso, and who get so deeply into the circles of Dante’s [Inferno] that they cannot get out anymore.”<sup>53</sup> Similarly, Galileo’s letter to Cigoli on the relative status of sculpture and painting dealt with a topic that was routinely discussed in the Florentine Accademia del Disegno and in other artistic academic circles.<sup>54</sup>

Galileo’s involvement with these literary activities does not mean that he contemplated a career as a writer, but rather that he needed to prove his competence with courtly and academic culture. It was an almost necessary rite of passage for young men looking for patronage and ambitious careers.<sup>55</sup> Moreover, being able to represent oneself as a literato was particularly important for somebody like Galileo who, as a mathematician, would have been otherwise assigned a much lower status. In fact, in Renaissance Italy writers were consistently given a higher social status than visual artists and mathematicians, and had much better chances for a career at court, a space where the notion of a “nobility of letters” was beginning to emerge.<sup>56</sup>

52. On Galileo’s election to, and relationship with, the Accademia della Crusca, see GO, vol. 19, p. 221; and Paola Manni, “Galileo Accademico della Crusca,” *La Crusca nella tradizione letteraria e linguistica italiana* (Florence: Accademia della Crusca, 1985), pp. 119–136. Galileo’s perspectives on Ariosto and Tasso are also discussed in Erwin Panofsky, *Galileo as a Critic of the Arts* (The Hague: Martinus Nijhoff, 1954). Tasso was excluded from the *Vocabolario degli accademici della Crusca* first published in Florence in 1612 (Salvatore Nigro, “Dalla lingua al dialetto: La letteratura popolare,” in Rosa, *I poeti giocosi dell’età barocca*, p. 66).

53. Mascardi, “Discorso secondo,” *Prose vulgari*, p. 34.

54. GO, vol. 11, no. 713 (26 June 1612), pp. 340–43. Favaro is skeptical about the authenticity of this letter, mostly on stylistic grounds. His position has been convincingly refuted by Margherita Margani in “Sull’autenticità di una lettera attribuita a G. Galilei,” *Atti della Reale Accademia delle Scienze di Torino* 57 (1921–22): 556–68. The debate on the primacy of sculpture over painting is a very frequent theme of sixteenth-century academic writings on the arts. The *Lezione di Benedetto Varchi nella quale si disputa della maggioranza delle arti*, which he read to the Accademia Fiorentina in 1547 (partially reproduced in Paola Barocchi, *Scritti d’arte del Cinquecento* [Turin: Einaudi, 1977], 1: 99–105, 133–51), is an example of this genre.

55. Galileo’s literary efforts must have been quite successful, if his academic friends in Florence—whom he met again during the summers spent in Florence—kept writing to him in Padua asking for his comments on sonnets or books they had written (GO, vol. 10, no. 52, pp. 63–64; no. 72, pp. 82–83; no. 76, pp. 86–87). References to Galileo’s literary and poetic production and expertise are found in GO, vol. 10, no. 54, p. 66; no. 409, p. 447; vol. 11, no. 492, p. 68; no. 563, p. 164; no. 647, p. 265.

56. On the relative status of writers and artists, see Peter Burke, “Artists and Writers,” *The Italian Renaissance* (Princeton: Princeton University Press, 1986), pp. 43–87. On the continuity between the social world of artists and mathematicians, see Biagioli, “Social Sta-

During these early phases of his career, Galileo was introduced not only to Florentine court and academic culture but into patronage networks as well. It is to this period of his life, to the culture he absorbed and the patrons and friends he met (and whom he kept meeting later during his regular summer visits to Florence from Padua), that we can trace most of the patronage strategies he developed later in his life.

The social groups Galileo frequented in Venice and Padua after 1592 were similar to those he was familiar with in Florence, but because Venice had no court, Paduan and Venetian culture was quite different from the Florentine, and patronage was of the patrician rather than the princely type. If Giovanfrancesco Sagredo was a patrician patron in Venice comparable to Filippo Salviati in Florence, we still cannot find the Cosimo II for Galileo's Paduan period. Salons, *casini*, and private academies rather than the court or official academies were the loci of such a patronage.<sup>57</sup> Moreover, although Venice was concerned with maintaining its own state myths (especially in its period of decadence at the turn of the century), these were not centered on a specific family dynasty but on the idea of the republic.<sup>58</sup> Consequently, Galileo's discoveries could not be made to fit those state myths in any relevant or particularly rewarding way. In fact, Galileo dedicated the telescope to the Venetian Senate as a instrument of navigation and warfare rather than as a means of viewing dynastic monuments.

The initiation into Florentine court and academic culture provided Galileo with the competence necessary to see *naturalia* as potential Medici dynastic emblems. Galileo understood that he needed an absolute

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tus of Italian Mathematicians"; and Thomas B. Settle, "Egnazio Danti and Mathematical Education in Late Sixteenth-Century Florence," in John Henry and Sarah Hutton, eds., *New Perspectives on Renaissance Thought* (London: Duckworth, 1990), pp. 24–37. On the nobility of letters, see Alain Viala, *Naissance de l'écrivain* (Paris: Minuit, 1985); and Lunadoro, *Relazione della corte di Roma*, 5, where he discusses the position of the pope's *Cameriere d'onore* usually reserved to "people of quality" because of their birth or because they were *illustri per lettere*.

57. Krzysztof Pomian, *Collectionneurs, amateurs et curieux* (Paris: Gallimard, 1987); pp. 81–158, 213–87; Gino Benzoni, *Gli affanni della cultura* (Milan: Feltrinelli, 1978), esp. pp. 7–77; idem, "Le accademie," in G. Arnaldi and M. Pastore Stocchi, eds., *Storia della cultura veneta* (Vicenza: Neri Pozza, 1984), vol. 4, pt. 1, 131–62; Gaetano Cozzi, *Paolo Sarpi tra Venezia e l'Europa* (Turin: Einaudi, 1979), pp. 135–234; Antonio Favaro, *Amici e corrispondenti di Galileo* (Florence: Salimbene, 1983), 1: 65–91, 191–322; 2: 703–36; idem, "Un ridotto scientifico in Venezia al tempo di Galileo Galilei," *Nuovo archivio veneto*, series 2, vol. 5 (1893): 199–209; and idem, *Galileo Galilei e lo Studio di Padova* (Padua: Antenore, 1966), 2: 69–102.

58. On Venice's decline, see Alberto Tenenti, *Piracy and the Decline of Venice 1580–1615* (Berkeley: University of California Press, 1967); James C. Davis, *The Decline of the Venetian Nobility as a Ruling Class* (Baltimore: Johns Hopkins University Press, 1962); and Richard T. Rapp, *Industry and Economic Decline in Seventeenth-Century Venice* (Cambridge, Mass.: Harvard University Press, 1976). On Venice's political rituals, see Edward Muir, *Civic Ritual in Renaissance Venice* (Princeton: Princeton University Press, 1981).

prince as a patron—and not just because, as he told Vinta, only a prince could have offered him the salary and leisure he was seeking. He needed an absolute prince because his marvels could best gain value and grant him social legitimization if they were made to fit the dynastic discourse of such a ruler.<sup>59</sup> When he discovered Jupiter's satellites at the end of 1609, he correctly realized that Venice was not the best marketplace for his marvels.

However, the understanding of patronage dynamics and of the codes of academic culture that Galileo had developed during his Florentine youth was not wasted in Padua and Venice. He managed to develop patronage relationships with powerful Venetian patricians such as Sagredo, he had access to the most respected salons, and he took an active part in Padua's academic life.<sup>60</sup> In 1599, Galileo was among the founding members of the Paduan Accademia dei Ricovrati, taking the name *Abbattuto* (the depressed or defeated one). Together with other colleagues, he was in charge of designing the academic impresas for that body.<sup>61</sup> The impresa Galileo proposed for Cosimo's wedding to Maria Maddelena of Austria in 1608 showed his mastery in emblematics and in the culture of the Medici court.

### From Lodestones to Satellites

Knowing that gold and silver medals were usually struck to commemorate major dynastic events, in September 1608 Galileo wrote to Cosimo's mother, Grand Duchess Cristina, proposing an emblem for a medal.<sup>62</sup> The letter is a concise summary of Medici dynastic ideology and presents a subtle “scientific” metaphor for the “naturalness” of the Medici rule. Referring to the lodestone he had bought for Prince Cosimo from Sagredo a few months earlier, Galileo compared the power of a future absolute ruler like Prince Cosimo to that of the lodestone. Using the terminology of the emblematicist Giovio, Galileo proposed that the “body” (i.e., the image) of the impresa be a globe-shaped lodestone that would hold a number of small pieces of iron around it.<sup>63</sup> The “soul” of the impresa (i.e., the motto) was *Vim Facit Amor* (“Love produces strength”).

59. GO, vol. 10, no. 307, pp. 348–53.

60. Favaro, *Galileo Galilei e lo Studio di Padova*, 1: 36–77; 2: 1–7, 18–32.

61. Benzoni, *Gli affanni della cultura* p. 176; and GO, vol. 19, pp. 207–8.

62. GO, vol. 10, no. 199, pp. 221–23. Devising emblems for medals was also a popular courtly and academic game. In Girolamo Bargagli's *Dialogo de' giuochi* (Siena: Bonetti, 1572)—a book dedicated to Donna Isabella Medici—the “game of reverses” is discussed. It is played as follows: Medals are imagined to be struck in honor of the ladies present at the gathering, and each gentleman must create a reverse worthy of the medal of one of the ladies (Crane, *Italian Social Customs of the Sixteenth Century*, p. 280).

63. Paolo Giovio, *Dialogo delle imprese militari e amorose*, ed. Maria Luisa Doglio (Rome: Bulzoni, 1978), p. 37. On the political symbolism of cosmologies during (and before) the

Galileo was well aware of the tensions underlying the representations of the Medici's absolute rule. On the one hand, the Medici wanted to stress the "naturalness" of their rule and the assent given to it by their subjects; on the other hand, they wished to emphasize the power of their rule and its lack of tolerance for deviant behavior. Galileo solved this riddle of political imagery by identifying in the sympathetic attraction between the lodestone and the small pieces of iron a fine metaphor for the Medici political agenda. According to Galileo's image, the pieces of iron (the subjects) seemed to be voluntarily driven up (elevated) toward the lodestone (the Medici power), for its force was not felt by other materials. Those pieces of iron (the subjects) wanted to be attracted. But, at the same time, such an uplifting attraction was powerful and ultimately inevitable. It was based on *love* but manifested itself as *power*. The motto *Vim Facit Amor* captures the meaning of the image. According to Galileo, the allegorical meaning of the motto was that

as fragments of iron are lifted up and held by the lodestone (but with a sort of loving violence, for they seek the stone avidly, as if they were rushing voluntarily to it), so that it is difficult to tell whether such a tenacious bond is the result of the strength of the magnet, the natural tendency of the iron, or the loving dialectic of power and obedience, the pious and courteous affection of the Prince—represented by the lodestone—does not oppress but rather lifts up his subjects, and makes them—represented by the fragments of iron—love and obey him.<sup>64</sup>

Galileo then explained to Cristina that the globe-shaped lodestone was itself an allegory of Cosimo as the cosmos and of the Medici coat of arms, which contains six globes. Those analogies had been employed fifty years earlier by Vasari in the Palazzo della Signoria's Room of the Elements. There the painter represented a Capricorn (Cosimo's ascendant sign) holding between its hooves a globe that signified both one of the balls of the Medici coat of arms and the cosmos held in check by Cosimo.<sup>65</sup> The Cosimo-as-cosmos theme recurs in other paintings in the Apartment of the Elements as well as in the palazzo's Room of the Geographical Maps.<sup>66</sup> This room contained a large armillary sphere, as well as

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scientific revolution, see Keith Hutchinson, "Toward a Political Iconology of the Copernican Revolution," in Patrick Curry, ed., *Astrology, Science, and Society* (Woodbridge: Boydell Press, 1987), pp. 95–141.

64. GO, vol. 10, no. 199, p. 222. See also Galileo's previous attempt to develop a politically connoted emblem based on the lodestone in a letter to Vinta (*ibid.*, no. 187, pp. 205–9).

65. Allegri and Cecchi, *Palazzo Vecchio e i Medici*, 67; and Vasari, *Ragionamenti*, p. 32.

66. *Ibid.*, p. 22.

a terrestrial globe in the center and maps representing the entire world, all designed and partially executed by the cosmographer Ignazio Danti.<sup>67</sup>

The analogy between Cosimo and cosmos (which Galileo would bring up again a few years later while negotiating the dedication of the *Sidereus nuncius* to Cosimo II) had been an important part of Medici mythology since the mid-sixteenth century. Names incorporating the term “cosmos” proliferated. When in 1548 Cosimo I gained control of Portoferaio, the island of Elba’s most important harbor, he had it fully fortified and called “Cosmopoli.”<sup>68</sup> This onomastic revisionism found perhaps its strongest expression during the “cultural revolution” that accompanied the constitution of the grand duchy of Tuscany that institutionalized the absolute power of the Medici. At that time Cosimo replaced Florence’s old patron saints, Zenobi and Giovanni (who were perceived as emblems of the old republican tradition), with Saints *Cosma* and Damiano, who while on earth were practicing physicians—“medici” being the Italian term for “physicians.”<sup>69</sup> The feast day of Saints Cosma and Damiano (September 27) coincided with the birthday of Cosimo il Vecchio (1389–1464)—the *pater patriae*. Like Cosma, both Cosimo I and Cosimo il Vecchio were represented as the physicians of Florence for having saved the city from the deadly plague of political disorder. Even as early as 1513, Leo X, the Medici pope who was instrumental in securing the duchy of Florence for the Medici, had instituted an annual holiday—the *Cosmalia*—allegedly in honor of Saint Cosma. In fact, the holiday was dedicated to the memory of Cosimo il Vecchio and was meant as a tribute to the Medici rule.<sup>70</sup>

In the 1560s the logo ΚΟΣΜΟΣ ΚΟΣΜΟΥ ΚΟΣΜΟΣ—Greek for “The cosmos is Cosimo’s world [or domain]” was included in Medici-commissioned works of art.<sup>71</sup> References to Cosimo as cosmos continued to emerge in Medici-related cultural productions, especially when “Cosimo” happened to be the current ruler’s name.<sup>72</sup> In his proposal for the impresa of 1608, Galileo reinforced the Cosimo-cosmos theme by suggest-

67. Detlef Heikamp, “L’antica sistemazione degli strumenti scientifici nelle collezioni fiorentine,” *Antichità viva* 9 (1970): 3–25; and Allegri and Cecchi, *Palazzo Vecchio e i Medici*, p. 303.

68. Arnaldo Segarizzi, *Relazioni degli ambasciatori veneti al senato* (Bari: Laterza, 1916), 3: 256.

69. Wazbinski, *L’Accademia medicea del Disegno a Firenze nel Cinquecento*, 1: 83. The “medicus”/Medici pun is also found in Erasmus’s letters to the Medici popes (I owe this point to an anonymous reviewer of the book in manuscript).

70. Cox-Rearick, *Dynasty and Destiny*, p. 33.

71. *Ibid.*, p. 279.

72. Examples are Gabriello Chiabrera, *La pietà di Cosmo: Dramma musicale rappresentato all’Altezza di Toscana* (Genoa: Pavone, 1622); Giovanni Carlo Coppola, *Cosmo, ovvero l’Italia trionfante* (Florence: Stamperia di SAS, 1650).

ing that *Magnus Magne Cosmos* should have been the motto on the other side of the medal, which was to contain Cosimo's effigy. "If taken literally [the motto] means only that the world is a great lodestone, but, taken metaphorically, it also confirms the impresa."<sup>73</sup> By substituting "Magnes" for "Dux" in the standard Latin version of Cosimo's title, "Magnus Dux Cosmos" ("Cosimo Grand Duke"), Galileo made the magnet a metaphor for the ruler by reinforcing the analogy between magnetic attraction and the prince's power.

Besides Galileo's remarkable skills in emblematics, this impresa reveals, I think, a turning point in Galileo's patronage strategies.<sup>74</sup> By 1608 he must have realized that the invention of military compasses, however useful, would not help him obtain a high-status position at court. Quite probably the compass brought him a good number of private students interested in fortifications, but it did not make him a very desirable client to a major prince, one preoccupied more with the celebration of his own image than with the quality of his court teacher of mathematics. The Gonzaga appreciated the gift of the compass; the Medici welcomed the dedication of the book which explained its use, but neither prince offered Galileo the type of position he was looking for. I think Galileo realized he needed to produce gifts that were less mechanical in nature than a compass if he wanted to go to court as a gentleman rather than as a teacher of mathematics or a military engineer.

The impresa of 1608 indicates that Galileo understood that marvels such as "mysteriously" behaving lodestones were more rewarding than instruments, especially when they could be represented as an emblematic articulation of the discourse of the court and of the absolute ruler. And indeed the imagery Galileo used in the 1608 impresa had been part of court discourse at least since Baldassarre Castiglione's *Book of the Courtier*. There Castiglione discussed the skills of a good courtier, one able to develop an elaborate presentation of the self that would "attract the eyes of the spectators even as the lodestone attracts iron."<sup>75</sup> The same analogy between the behavior of the lodestone and that of the attractive power of *virtù* occurs in some of the letters Galileo exchanged with Medici courtiers. In December 1605 he received a letter from Cipriano Saracinelli, who concluded by confirming his friendship for and patronage to Galileo: "[But] I would have done the same even if I did not know you, because what is beautiful

73. GO, vol. 10, no. 199, p. 223.

74. Galileo owned Paolo Giovio's and Ettore Tasso's texts on impresas (Favaro, *La libreria di Galileo Galilei*, 285, 287). One of his sonnets is dedicated to the enigma itself ("Enimma," GO, vol. 9, p. 227). As I have mentioned, he was in charge of the imprese of Padua's Intronati (see note 41 above). Finally, he liked to play with enigmas to "communicate" his discoveries, as in the case of the phases of Venus (GO, vol. 11, no. 451, p. 12) or of the shape of Saturn (GO, vol. 10, no. 427, p. 474; no. 435, p. 483).

75. Castiglione, *Book of the Courtier*, p. 100.

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and good—that is, virtue—has the power to attract from far away the soul and the will of even those who can barely recognize it.”<sup>76</sup>

Vinta was even more explicit about the attractive force of virtue. In a letter to Galileo in March 1608, concerning the purchase of the lodestone for Cosimo, he concluded with: “And—Your Lord’s value being a lodestone that attracts and forces me to love and serve you—I beg you to use me for anything you may desire or need.”<sup>77</sup> A week later Galileo returned the courtesy, writing Vinta (whose name within Siena’s Accademia dei Filomati was “The Attractive”) that:

I will never admit that the lodestone of my value could attract the affection of Your Most Illustrious Lord, for I know that I do not possess those qualities that would deserve so much favor. Rather, it is my needy status to act as a magnet that moves the pious affection and most courteous attitude of Your Most Illustrious Lord into loving and protecting me.<sup>78</sup>

A month later Galileo presented Vinta with the lodestone-based impresa that Galileo would rework and finally propose to Cristina for Cosimo’s wedding medal.<sup>79</sup>

The originality of Galileo’s impresa does not lie in the use of technical devices in emblems.<sup>80</sup> Giovio had already discussed them in his emblematics textbook.<sup>81</sup> What was new about Galileo’s translation of scientific marvels into the discourse of the court (or of a specific dynasty, as in the

76. *GO*, vol. 10, no. 129, p. 150.

77. *Ibid.*, no. 178, p. 198.

78. On Vinta’s academic name, see Giuseppe Fusai, *Belisario Vinta* (Florence: Seeber, 1905), p. 105. The Filomati’s choice of that name for Vinta reflected an explicit appreciation for his brokerage skills. As the secretary of the academy put it: “The academic name we have decided to give you is *The Attractive*, because everybody has heard and several know from experience how Your Lordship, because of your great skills in negotiating, is able to win the devotion of their hearts and . . . their affection.” Galileo’s letter is in *GO*, vol. 10, no. 180, p. 200. Because Vinta was elected to the Filomati in 1603, Galileo’s expression might be a pun on Vinta’s academic name.

79. *Ibid.*, no. 187, pp. 205–9.

80. The use of emblematics in scientific texts has been studied by William Ashworth in “Iconography of a New Physics,” *History and Technology* 4 (1987): 267–97; *idem*, “Divine Reflections and Profane Refractions,” in Irving Lavin, ed., *Gianlorenzo Bernini* (University Park: Pennsylvania State University Press, 1985), pp. 179–95; and *idem*, “The Habsburg Circle,” in Bruce Moran, ed., *Patronage and Institutions* (Rochester, NY: Boydell, 1991), pp. 137–67. See also Ashworth’s “Natural History and the Emblematic World View,” in David C. Lindberg and Robert S. Westman, eds., *Reappraisals of the Scientific Revolution* (Cambridge: Cambridge University Press, 1990), pp. 303–32.

81. Giovio, *Dialogo dell’impresa militari e amorose*, 37, 66–67. See also Allegri and Cecchi, *Palazzo Vecchio e i Medici*, 113, 149; and Karla Langedijk, *The Portraits of the Medici* (Flor-

case of the satellites of Jupiter) was that he did so both to show that natural philosophy was not necessarily an uncourtly activity, and to legitimize scientific discoveries and theories by linking them to the power image of the prince.<sup>82</sup>

Galileo's claim that the motto *Magnus Magnes Cosmos* meant both that "the world is a great lodestone," as William Gilbert had argued, and that the attractive force of Cosimo's power, as legitimate and "natural," had important implications. It associated Gilbert's theory (one that could be used against the accepted Aristotelian cosmology) with that of the naturalness of the Medici absolute rule.<sup>83</sup> By striking such a medal the Medici would help legitimate Gilbert's theory; at the same time, Galileo's "magnetic" interpretation of the Medici power helped represent their rule as "natural." Quite literally, the medal Galileo proposed to Cristina had two inseparable faces and meanings. Galileo's strategy was aimed at legitimizing scientific theories by including them in the representation of his patrons' power, thus securing both the patrons' involvement and endorsement.<sup>84</sup> This was Galileo's attempt to get out of the deadlock caused by the patrons' noncommittal attitude discussed in the previous chapter.

There was another, more subtle but equally important sense in which Galileo's tactics of socioprofessional self-fashioning were modulated on court discourse. The image of the lodestone attracting pieces of iron presented by Castiglione and adopted by Galileo was an emblem of court life itself. At court, one's status and identity was not safely anchored to one's wealth, academic degree, birth, or professional competence. Status and identity were renegotiated every day in that endless process that Norbert Elias has described so vividly.<sup>85</sup> A courtier's identity depended on how one was perceived by the prince and the other courtiers. As the saying goes, one existed in the eye of the beholder. The way one looked and be-

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ence: SPES, 1980), vol. 1, p. 212, note 110, on the use of technological and scientific impresas in Medici imagery.

82. Galileo was not alone in trying to present natural philosophy as fitting courtly discourse by using it in emblems. The Jesuits had done the same. As Federico Cesi wrote to Galileo, during one of the usual public debates at the Collegio Romano, the orator had used a fluorescent stone in an impresa as he debated on the sunspots (*GO*, vol. 12, no. 964, p. 12).

83. Galileo's pro-Copernican use of Gilbert is made explicit at the end of the third day of the *Dialogue on the Two Chief World Systems*.

84. For a different but related strategy adopted by Copernicus with Pope Paul III, see Robert S. Westman, "Proof, Poetics and Patronage: Copernicus's Preface to *De revolutionibus*," in David C. Lindberg and Robert S. Westman, eds., *Reappraisals of the Scientific Revolution* (Cambridge: Cambridge University Press, 1990), pp. 167–205.

85. Elias, *Court Society*. On self-fashioning, see Stephen Greenblatt, *Renaissance Self-Fashioning* (Chicago: University of Chicago Press, 1980); and Frank Whigham, *Ambition and Privilege: The Social Tropes of Elizabethan Courtesy Theory* (Berkeley: University of California Press, 1984).

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haved was read as a sign of whether or not one had *gratia*.<sup>86</sup> Therefore, one's ability to "attract" the gaze of the courtiers to confirm or increase one's status was a vital skill at court. Nobody was exempt from this, as court etiquette was precisely the framework within which these subtle negotiations of status and identity were performed, usually to the ultimate advantage of the prince.

Castiglione's image of the lodestone was the perfect epitome of the courtier's predicament. It applied to the prince trying to maintain control over his subjects as well as to the courtiers trying to ascend by attracting as many confirming gazes as they could. Galileo's choice of this image is, I think, not accidental. Although the Medici were his direct audience, any courtier (as indicated by Castiglione's text and by Galileo's correspondence) would have probably seen him/herself reflected (either as a subject or as a *terrella*) in his own impresa. Galileo himself could be seen in his impresa as a piece of iron trying to let the lodestone know that he would be happy to be lifted up.

Galileo was trying to show that a natural philosopher could devise gracious impresas like any other literato. Actually, while naturalizing the Medici absolute rule, his lodestone impresa referred also to the courtier's daily life as represented in courtly texts like Castiglione's. In a sense, Galileo was trying to present himself as a competent courtier by showing that he understood the courtly game and, at the same time, by representing it not as a rat race but as an elegant game of sympathies. Quite likely, courtiers cared very little about how Gilbert's views on magnetism could be mobilized against Aristotelian cosmology, but they could probably see and appreciate how these views could provide a gracious metaphor of their daily life. To them, Gilbert's theories may not have explained the processes of the cosmos but they did help to make sense of *le monde*.

However, while Galileo's verbal description of the impresa (like the one he sent to Cristina) allowed him to display his skill in emblematics, the impresa alone was not as self-evident as it needed to be.<sup>87</sup> In fact, who could distinguish a magnet attracting iron fragments from a globe surrounded by irregularly shaped pieces of some unspecified material? Nevertheless, Galileo's attempt was not a total failure but rather an instance of a trial-and-error strategy. What he did two years later by binding the Medici name to the satellites of Jupiter was a successful replay of the same strategy. By turning an astronomical discovery into a dynastic emblem he

86. Randolph Starn, "Seeing Culture in a Room for a Renaissance Prince," in Lynn Hunt, ed., *The New Cultural History* (Berkeley: University of California Press, 1989), pp. 205–32, esp. pp. 210–17.

87. Giovio, *Dialogo dell'impresa militari e amorose*, 37. On the obscurity of impresas, see also Frances Yates, "The Italian Academies," *Collected Essays* (London: Routledge, 1983), 2: II.

became a very important client, a sort of “cosmic midwife.” At the same time he turned Medici power to the legitimization of his discoveries and of his telescope.

### From Classified Instruments to Dynastic Horoscopes

After donating his telescope to the Venetian Senate in August 1609 and being rewarded with tenure and a remarkable salary increase, Galileo wrote to his brother-in-law, Benedetto Landucci, that, given the new developments, he perceived his life and career as permanently bound to Padua and its university.<sup>88</sup> However, a few months later he was negotiating with Vinta for his position as “Filosofo e Matematico del Granduca di Toscana,” which he formally obtained in July 1610.<sup>89</sup> The four satellites brought about this remarkable change of socioprofessional status and patronage strategies.

For all the exceptional characteristics Galileo perceived in the telescope in August 1609, he still presented it to the doge Leonardo Donà as a *military* instrument. The telescope was a marvel, but one not tailored for any specific patron. Despite its truly exceptional features, the telescope was patronage-generic. It was a gift for everybody and for nobody in particular. Quite correctly, at this point Galileo still perceived the telescope as belonging to the same patronage category as the military compass, the only important difference being that the telescope was much more useful than the compass and therefore could trigger the interest and curiosity of a much wider audience. At this point in Galileo’s career, the telescope was still simply an instrument. It was neither a messenger of dynastic destiny nor a ticket to court. From his correspondence of the period we see that until he discovered Jupiter’s satellites, Galileo did not make any serious attempt to use the telescope to move to the Medici court. Although Cosimo II asked Galileo for a good telescope, his interest in the instrument did not seem to be essentially different from that he had shown in Sagredo’s lodestone a few years before.

Galileo’s commitment to Copernicanism seemed to fluctuate with his grasp of possibilities for court patronage. The conditions of his gift of the telescope to the Venetian senate indicates that, at the time, Galileo was not thinking of the telescope as a scientific instrument which could support the Copernican cause but as a sort of classified weapon. In this, Galileo’s perception of the telescope’s uses was identical to that of his Dutch pre-

88. *GO*, vol. 10, no. 231, pp. 253–54. Favaro questioned the authenticity of this letter, but Edward Rosen has convincingly refuted his argument in his “The Authenticity of Galileo’s Letter to Landucci,” *Modern Language Quarterly* 12 (1975): 473–86.

89. *GO*, vol. 10, 359, pp. 400–401.

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decessor, Hans Lipperhey.<sup>90</sup> In his letter to the doge Leonardo Donà, Galileo claimed that judging the telescope as “worthy of being received and estimated as most useful by Your Lord, I decided to present it to you and have you decide about the future of this invention, ordering and providing according to your prudence whether telescopes *should or should not be built.*”<sup>91</sup> This last statement indicates that either Galileo was ready to withhold an effective instrument from the rest of the astronomers or that his commitment to Copernicanism was not strong enough to suggest to him the astronomical potential of the telescope. However, Galileo’s Copernican leanings reemerged and his patronage strategies changed abruptly when, four months later, he observed Jupiter’s satellites.

The story of the negotiation between Galileo and Cosimo II carried on through Vinta during the first half of 1610 has been told many times.<sup>92</sup> What has not received much attention are Galileo’s strategies to gain social status for himself and epistemological legitimization for the Medicean Stars by re-presenting them within the discourse of the Medici mythology, as he had previously tried to incorporate Gilbert’s views on magnetism.

Astrological predetermination was a recurrent theme in Galileo’s presentation of his discoveries to the Medici. What he had observed, Galileo claimed, was not a discovery but a confirmation of the Medici’s destiny, almost a scientific proof of their dynastic horoscope.<sup>93</sup> As he told Cosimo in the dedication of the *Sidereus nuncius*, it was not by chance that the “bright stars offer[ed] themselves in the heavens” right after Cosimo II’s enthronement.<sup>94</sup> It was not by chance that such stars were circling around Jupiter (Cosimo’s planet) like his offspring and that Jupiter was actually just above the horizon at the time of Prince Cosimo’s birth, thus passing on to him the virtues of the founder of the dynasty. And, one might add, it was not by chance that the stars were four in number, like Cosimo II and his brothers.<sup>95</sup> And, given this array of fateful conjunctures, Galileo’s role

90. Hans Lipperhey tried to obtain a patent for his telescope in 1608. In his presentation of the instrument to Prince Maurice, he—like Galileo one year later—stressed its military usefulness (Albert Van Helden, “The Invention of the Telescope,” *Transactions of the American Philosophical Society* 67 [1977]: 20–21, 26, 36).

91. GO, vol. 10, no. 228, p. 251 (emphasis mine).

92. Westfall, *Scientific Patronage*, 16–21; Stillman Drake, ed., *Discoveries and Opinions of Galileo* (Garden City, N.J.: Doubleday, 1957), pp. 1–20; and Galilei, *Sidereus nuncius*, pp. 1–24.

93. For instance, Tommaso Campanella—who did not quite understand Galileo’s astrological rhetoric of the dedication—initially saw it as a real horoscope (GO, vol. 12, no. 982, p. 32).

94. Galilei, *Sidereus nuncius*, pp. 30–31.

95. Although in the dedication of the *Sidereus nuncius* Galileo did not draw an explicit connection between the four stars and the four brothers but claimed that they were “children

in the appearance of these dynastic signs could not have been a casual one either.

In the dedication, Galileo tended to hide the economic dimensions of the patronage relationship he was trying to establish. As he presented it, he was not trying to sell the Medici a particularly fitting dedication. His relationship with them was a most disinterested one. It was more than completely voluntary: it was *predetermined*.<sup>96</sup> The Medici and Galileo had been brought together by the stars. It could not be by chance that Galileo, a Medici subject and the mathematics tutor of Prince Cosimo II himself, had discovered the stars; *only* he could have discovered them.<sup>97</sup> In a sense, the stars did not need to be dedicated to the Medici: they had always been theirs. As he put it, “four stars were *reserved* for your illustrious name.”<sup>98</sup> Like Galileo, they had been assigned to the Medici from the beginning.

Appropriately, Galileo referred not to a *discovery* but to an *encounter* between the Medici and their destiny. His role in this encounter was that of the mediator, and a lowly one at that.<sup>99</sup> As he told Vinta, it was in the best interest of the Medici to “ennoble” him because

There is only one thing that largely diminishes the greatness of this encounter, and that is the ignobleness and low status of the mediator. Nevertheless . . . the ennoblement of the mediator is no less in the range of possibilities of His Most Serene Highness than the demonstration of my most devout observance was in mine.<sup>100</sup>

If the Medici hesitated, the celestial nature of the encounter might be spoiled by the humble status of the mediator.

However, he was not *asking* the Medici for a title in exchange for a dedication. If the encounter was a predestined one, then his role as mediator was predestined too. Galileo was *de facto* (or *ex Deo*) the Medici oracle. The Medici needed only to recognize it. And, with some help from Galileo, they eventually did.

Galileo’s tactics go well with the dynamics of the power image of an absolute prince discussed in the previous chapter. As noted, absolute princes behaved as if they had everything. Consequently, nothing could be given to them that was not already theirs. This self-representation le-

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of the same family” (*ibid.*, 31), he made that analogy in a letter to Vinta (GO, vol. 10, no. 265, p. 283).

96. The theme of the predestination of a patronage relationship was not a new one. Vasari used it a few decades earlier when he signed his letters to Cosimo I as “Servitor per fortuna e per istella, Giorgio Vasari” (Frey, *Il carteggio di Giorgio Vasari*, p. 443).

97. Galilei, *Sidereus nuncius*, p. 32.

98. *Ibid.*, p. 31.

99. GO, vol. 10, no. 271, p. 289. Galileo played again the theme of the “encounter” a week later (*ibid.*, no. 277, p. 298).

100. *Ibid.*, p. 301.

gitimated the princes' claims that they were not obliged to return gifts from subjects. If they did reciprocate gifts, it was a *favor* they were doing them and was not to be read as the acknowledgment of a debt. In short, subjects could not "challenge" their princes to a potlatch, or, if they did, they had to do so by following a specific "etiquette."

Galileo's dedication of the *Sidereus nuncius* spells out this etiquette. It indicates that a client interested in establishing an exclusive patronage relationship with an absolute prince could try to efface the potlatch qualities of his maneuver by presenting his gift as though it were not really a gift but had already belonged to the prince "since the beginning." By doing so, the client did not present himself as trying to challenge the prince or as asking for something in return. He could pretend to share the same aristocratic ethos of generosity and waste with the prince, to the point of throwing away the most precious thing he had: the authorship of those discoveries. His self-effacement was an extreme gesture of courtly nonchalance. Galileo presented himself as a heroic self-effacer, not as a heroic challenger of the prince. Through this self-inflicted "authorial martyrdom," Galileo could present himself as kin to the prince while stressing that his "heroism" was aimed at celebrating the prince rather than challenging him.

That an absolute prince would not accept being challenged to a potlatch by his would-be clients, but would instead reward those who presented themselves as sharing in his "heroic" ethos (though in a disciplined, if masochistic, fashion) fits quite well with what we have seen about the interaction between great patrons and high-visibility princes. As noted, successful clients were those who were able to present their gift-giving as a fully disinterested act, thus allowing the prince to reward them for apparently equally disinterested reasons. The end result of the process was the mutual legitimization of both client and prince.

Cosimo's "ennoblement" of Galileo by nominating him his philosopher and mathematician reflects these dynamics. In fact, the more the Medici recognized Galileo's disinterestedness and "nobility" in presenting them with the satellites of Jupiter, the more they legitimized their own dynasty by representing the discovery as a preordained celestial encounter with their destiny rather than as an interested gift from a client they had paid. For the discoveries to become an omen from the stars (*as sidereus nuncius*), Galileo *must* be given the status of starry ambassador, that is, of philosopher of the grand duke.<sup>101</sup> By presenting the gift exchange between

101. Similarly, Galileo presented the telescope to the Medici both as a scientific instrument and as a sort of dynastic relic. When, in March 1610, he sent the telescope to Cosimo II together with the presentation copy of the *Sidereus nuncius*, he told Cosimo that the rough-looking and unpolished instrument should be left in its original state, for it was the "instrument through which such a great discovery was achieved." The grand duke, Galileo continued, would receive many and more elegant-looking telescopes, but this was the only one

Galileo and Cosimo as perfectly disinterested, Galileo legitimized his discoveries, his instrument, and his new socioprofessional identity, while Cosimo enhanced his and his house's image.

These dynamics of mutual legitimization of patrons and clients were by no means limited to the case of Galileo and Cosimo II but were in fact typical of the power discourse of absolutism. There are telling homologies between Galileo's tactics for the legitimization of his new socioprofessional identity and Paul Pellisson's attempt to legitimize himself by becoming the historiographer of Louis XIV. As argued by Louis Marin, the message Pellisson sent to Louis through Colbert was that the most effective way to celebrate the king's image and power was by writing *his* history.<sup>102</sup> However, to be legitimate and politically effective this history could not be written by a private historian. Instead, it had to be the king's own history, not a historian's history of the king. But, at the same time, the king could neither write it by himself nor show himself commissioning a self-aggrandizing narrative. Although Louis was absolutely powerful, Pellisson understood that he was also absolutely impotent because he could not sing his own praises nor openly pay somebody else to do it.

According to Marin, Pellisson solved this royal deadlock and, by doing so, he acquired power from the king: "Give me the responsibility of being 'your' historiographer. I will give you a history, 'yours,' but with the precondition that I cannot write your history if I do not receive the office from you."<sup>103</sup> The king's impotent predicament could be overcome only by Pellisson's becoming the king's historiographer. It was only by being connected to Louis that—like an ancient prophet—Pellisson could "speak his voice" and write his history. However, for the king's narrative to be fully credible and effective, it had to come out of Pellisson's pen *naturally*. Pellisson could not be perceived as a hired pen: "It would no doubt be hoped that His Majesty approve and accept this design, which can almost not be well executed without him. But he must not seem to have accepted, known about or ordered it."<sup>104</sup> For Pellisson to become Louis's prophet, it had to happen in an apparently most natural (that is, disinterested) way.

Pellisson's strategy is like Galileo's in his dedication of the *Sidereus nuncius*. Galileo's saying that he and the Medici had been put together by the stars was a perfect tactic to naturalize and legitimize the relationship between patron and client while keeping their "complicity" secret. They

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that was "there" at "that time" (*ibid.*, pp. 297–98). It alone of all possible telescopes carried that special aura of *hinc et nunc* with it. It alone was not just a telescope but a *nuncius*.

<sup>102</sup>. Louis Marin, "The King's Narrative, Or How to Write History," *Portrait of the King* (Minneapolis: University of Minnesota Press, 1988), pp. 39–88.

<sup>103</sup>. *Ibid.*, p. 43.

<sup>104</sup>. *Ibid.*, p. 44.

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did not plan anything. Also, like Pellisson who claimed he could not write the king's history without being (disinterestedly) connected to him, Galileo said that he could not have discovered the Medicean Stars without having been connected to Cosimo since he was a young prince:

It pleased Almighty God that I was deemed not unworthy by Your serene parents to undertake the task of instructing Your Highness in the mathematical disciplines, which task I fulfilled during the past four years, at that time of the year when it is the custom to rest from more severe studies. Therefore, since I was evidently influenced by divine inspiration to serve Your Highness and to receive from so close the rays of your incredible clemency and kindness, is it any wonder that my soul was so inflamed that day and night it reflected on almost nothing else than how I, most desirous of Your glory (since I am not only by desire but also by origin and nature under Your dominion), might show how very grateful I am toward You. And hence, since under Your auspices, Most Serene Cosimo, I discovered these stars unknown to all previous astronomers, I decided by the highest right to adorn them with the very august name of Your family.<sup>105</sup>

Galileo's self-presentation fits Pellisson's strategy perfectly. He was "naturally" connected to the Medici when he discovered the stars and yet he was not paid by them. In fact, at that time, he was an employee of the Republic of Venice. Quite conveniently, he could represent himself as the unpaid prophet of the Medici glory.<sup>106</sup> The Medici had given him the ability to discover the stars but did not ask him to do so. Becoming the philosopher and mathematician of the grand duke after the publication of the *Sidereus nuncius*, that is, becoming officially and financially connected to the Medici, did not taint his credibility or the Medici's. By then, he had "freely" donated his discoveries to the Medici, and the Medici were giving him back an equally "free" counter gift by calling him back to their court. As Galileo reminded them, they were made for each other.

Although we may not really see the discovery of Jupiter's satellites as a celestial encounter between the house of Medici and their destiny, and we may also be skeptical about Galileo's patronage relation with the Medici being written in the sky, Galileo was right (though not for the reasons he put forward) in presenting himself as a "natural" client of the Medici. When he observed the satellites at the beginning of 1610 he probably realized that, given the structure of the Medici's mythology and the patronage

105. Galilei, *Sidereus nuncius*, 32.

106. As noted in the previous chapter, Galileo was not paid cash for his instruction of Prince Cosimo during the summer but was given gifts of various sorts. He was also not paid for either the publication of the *Sidereus nuncius* or the telescopes he sent all over Europe until after the Medici had expressed their intention to invite Galileo back to Florence.

connections he had developed over the years, the Medici were the best patrons he could possibly attract. Quite probably, Jupiter played a role in the political mythologies of other European dynasties, but there is no evidence that Galileo knew of those mythologies or had brokers in those courts who could help him quickly to negotiate a dedication.

### Suspicious Stars

Galileo's strategy for the legitimation of both his new instrument and the discoveries it made possible does not seem essentially different from the one he had previously tried out with Cosimo's 1608 impresa. By transforming the instrument and the discoveries into Medici fetishes, he tried to tie his patron's image and power to them. But, as we have seen, the use of patrons as legitimizing institutions was not an unproblematic strategy. Usually, patrons did not want to risk their status for that of their clients, even when an important contribution to their own image was at stake. The cautious Cosimo II was not always quick in upholding Galileo against his challengers, and his son Ferdinand II would be even less supportive.

Galileo's strategy seems to have been to try to tie the Medici's image to his discoveries not at once but gradually. In the dedication of the *Sidereus nuncius*, Galileo did not try to say that the Medici had endorsed his discoveries, he simply laid down his credentials: he had discovered the Medicean Stars for Cosimo II because of his particular connection to him. That was why he was dedicating the stars to the house of Medici. He was not doing so to gain credibility. He used the dedication of the *Sidereus nuncius* as a patronage "bait" but did not try to "capture" the Medici immediately; a rush tactic would not have worked.

However, as a result of the Medici acceptance of the dedication, he asked them to distribute, through their diplomatic networks, telescopes and copies of the *Sidereus nuncius* (almost as instruction booklets) to the European nobility. Although he presented this move to the Medici as away of making sure that their glory would be well publicized among those who counted, he managed to be perceived as a Medici client in the eyes of those who received the telescopes and the *Sidereus nuncius*. Kepler, for instance, given the way he had been approached by the Medici ambassador, thought that Galileo was already in the service of the Medici.

In a sense, Galileo was able to use the extra credibility he derived by being associated to the Medici without them fully realizing it or having officially endorsed his discoveries. Nevertheless, the additional power he obtained through this still quite loose connection with the Medici helped him to succeed in defending his discoveries and, consequently, to gain more recognition from the Medici which, in turn, allowed him to become even more credible and draw further assent to his discoveries from others.

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The Medici connection was particularly important in convincing those Galileo could not reach personally.

As he wrote to Matteo Carosio in Paris in May 1610, he had been very successful at convincing people of the truth of his discoveries by going around with a good telescope and showing the satellites to those willing to look at them. However, he had problems in reaching people who were far away.<sup>107</sup> In those cases, having the local prince look through the telescope (one they had received through the Medici ambassador) and see the planets was crucial in disciplining the local astronomers and philosophers.<sup>108</sup> As Martin Hasdale wrote to Galileo in July 1610, the emperor's endorsement of Galileo's discoveries had quenched the opposition at the imperial court: "His August Majesty has been the cause for the decline of the success of the adversaries, because His Majesty has declared himself most happy and most satisfied [with your claims]."<sup>109</sup> What is more interesting in Hasdale's letter is the mention that Galileo's opponents at court had used as a major resource for their criticism the report that Galileo, in his brief visit to Bologna, had not been able to convince Magini and the other mathematicians and philosophers assembled at his house. This report was represented as "an official judgment of the University of Bologna."<sup>110</sup> In short, the emperor's power was enough to overcome the authority of a lesser institution, the University of Bologna—one that, given the received disciplinary hierarchy, was likely to be hostile to Galileo's claims anyway.

Galileo alternated between using those resources he could get from the Medici without putting them on the spot, in order to get credibility from outside, and then using the assent thus gained to strengthen further his link with the Medici and tie his discoveries to their image. By the end of this process, Galileo had slowly tied the Medici to his wagon. More important, in so doing, he had used their own power. A few months later, Galileo was their philosopher and mathematician and was sent to Rome as an official envoy to have the Medici glory and his discoveries endorsed by the greatest of the Italian princes: the pope. As indicated by a letter Vinta wrote to Galileo announcing the Grand Duke's authorization of his trip to Rome, the symbiosis between Galileo's discoveries and the Medici image had finally been achieved:

About the trip of Your Lordship to Rome, I have told their Highnesses that now is the time [for it] because of the state of the debate

107. GO, vol. 10, no. 313, p. 357.

108. Obviously, the first instance in which he adopted this tactic was with Cosimo himself on the occasion of his trip to the Medici court in Pisa on Easter of 1610. That Cosimo had seen the stars gave Galileo the credibility he needed for his subsequent moves.

109. Ibid., no. 360, p. 401.

110. ". . . a definitive judgment of the University of Bologna" (ibid.).

[*speculazione*] and the possibility of observation of those planets, and that, therefore, one should not wait any longer, and that, once this will be cleared in Rome, with the confirmation that has [already] been received from the Mathematician of the Emperor, from Father Clavius and others, as soon as they will be confirmed and established in Rome, it will be possible to say that those claims [*costituzione*] are established for the entire world, and, by sharing them with His Holiness, these new observations and claims will have to be received with universal consensus.<sup>111</sup>

The achievement of this symbiosis was a complicated and delicate process because both the Medici and the Florentine courtiers tended to be unwilling to put their honor at stake for Galileo's discoveries. Just a week after the publication of the *Sidereus nuncius* in March 1610, Galileo wrote to Vinta that:

because it is most true that our reputation begins with our own self-confidence, and that whoever wants to be esteemed ought to have self-esteem first, when His Most Serene Highness will demonstrate recognition of the importance of this encounter [the discovery of the Medicean Stars], no doubt not only all his subjects but all nations will recognize its importance too, and there will remain no feather in the wings of fame that will not write in praise of the glory of this event.<sup>112</sup>

Galileo then suggested that the distribution of copies of the *Nuncius* and of telescopes to European kings and princes would be most appropriately carried out by the Medici ambassadors in the various Italian and European states.<sup>113</sup> But, while the Medici accepted Galileo's proposal of distributing the books and instruments through their official diplomatic channels, they avoided taking official stands about the reality of the satellites of Jupiter.<sup>114</sup>

Writing again to Vinta on May 7, Galileo went back to the same issue. After reassuring him and the Medici that he had both publicly refuted his challengers at Padua and received a long and very supportive letter from the "Mathematician to the Emperor,"<sup>115</sup> Galileo claimed that the Medici's image in connection to the discoveries had been safely defended. But now "We—especially our Most Serene Lords—have to sustain the importance and reputation of the discovery by demonstrating the esteem such a remarkable novelty deserves, it being so considered by everybody who speaks sincerely."<sup>116</sup> But the Medici maintained their cautious stand. Vincenzo Giungi—the supervisor of the Medici artistic workshops—

111. *GO*, vol. 11, no. 464, pp. 28–29 (emphasis mine).

114. *Ibid.*, no. 311, pp. 355–56.

112. *GO*, vol. 10, no. 277, p. 298.

115. *Ibid.*, no. 306, p. 349.

113. *Ibid.*, no. 277, pp. 298–99.

116. *Ibid.*

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wrote to Galileo on June 5 saying that the production of the dies to strike the medal celebrating the discovery of the Medicean Stars had been put on hold by the grand duke himself. Cosimo II had told Giugni to wait until the debate on the stars was settled.<sup>117</sup>

By this time Galileo had received a long letter from Kepler (soon published as *Dissertatio cum Nuncio sidereo*) in which he confirmed Galileo's observations. Confident of the international credibility provided by Kepler's endorsement, Galileo showed himself annoyed by the grand duke's extreme caution and mentioned to Giugni that even the king of France had intimated his willingness to accept the dedication of whatever planets Galileo might discover in the future. Therefore, Galileo suggested to Giugni that, "whenever possible, please make sure that Your Most Serene Highness would not delay the flight of fame by taking an ambiguous stand about what he has seen many times himself—something that fortune reserved to him and denied to everybody else."<sup>118</sup>

Although by the time Galileo sent this letter he had been already reassured by Vinta of his position at the Medici court, it might not have been by chance that he had not yet received the life contract he had been promised, which in fact reached him only in July.

Cosimo II was not alone in his caution. The Florentine academicians and court poets were not celebrating the Medicean Stars as enthusiastically as Galileo expected or wished them to. Two weeks after the publication of the *Sidereus nuncius*, Alessandro Sertini, a longtime Florentine friend of Galileo's and a member of the Accademia Fiorentina, wrote to him saying that his efforts to mobilize the "Tuscan Muses" had not been very successful. The Medici court writers seem to be waiting for one of them to give the signal: "The Muses are moving a bit slowly, because nine of them are lagging behind waiting for a tenth one to take the lead. Your Lord should write to him if you want to make sure that he will write something on the Medicean Stars."<sup>119</sup>

In a letter of July 10, Sertini informed Galileo that attacks by Giovanni Magini and Martinus Horky on his discoveries had been widely pub-

117. Ibid., no. 326, pp. 368–69.

118. Ibid., no. 339, pp. 381–82. See also pp. 379–80. In addition to the king of France's interest, we know of a number of people who tried to replicate Galileo's patronage strategies. Scheiner dedicated a fifth satellite he thought he had discovered around Jupiter to Welser. It seems that Peiresc planned a "French version" of the *Nuncius* dedicated to Maria de' Medici. The surviving sketch for the frontispiece depicts Maria sitting on Jupiter, surrounded by the four stars that Peiresc had named after the four grand dukes: "Cosmus Major," "Franciscus," "Ferdinandus," and "Cosmus Minor" (*La corte, il mare, i mercanti/ La rinascita della scienza/ Editoria e società/ Astrologia, magia e alchimia* [Florence: Edizioni Medicee, 1980] [an exhibition catalogue], pp. 230–31). Jean Tarde and Charles Malapert thought that the sunspots were congeries of planets and dedicated them to, respectively, the Bourbons (in 1620) and the Austrian Hapsburgs (in 1633).

119. GO, vol. 10, no. 282, pp. 305–6.

licized in Florence and that Ludovico delle Colombe seemed to have joined the challengers' side. As a result, Sertini was unsure of the Florentine writers' willingness to publish their sonnets on the stars.<sup>120</sup> In fact, Galileo had proposed to the grand duke to publish a more elegant version of the *Sidereus nuncius* in the Florentine language, one including the sonnets dedicated to the Medicean Stars.<sup>121</sup> Such a version would have been tailored to the Florentine court audience, for the sonnets would spell out the connections between the stars and the Medici mythology. Those connections were not elaborated in the first Latin version of the *Sidereus nuncius* because the European audience to which it was primarily addressed could not have understood them. I suggest that it was because he had a European audience in mind that Vinta, when consulted by Galileo on the name to be assigned to the satellites in the *Sidereus nuncius*, replied that, of the two names proposed by Galileo, "Medicea Sydera" seemed more appropriate because "Cosmica Sydera" might have been misunderstood as referring to "cosmos" rather than to "Cosimo."<sup>122</sup> A Florentine audience would have not made that mistake.

The writers were still unenthusiastic in August, when Sertini wrote to Galileo: "Everybody here is worried because you said you wanted to print [the poems]. [Michelangelo Buonarroti, Jr.] would prefer not to have his name printed but—like Piero de' Bardi—he would be happier if it would say: 'Made by the Impastato, Member of the Academy of the Crusca'."<sup>123</sup> The court writers, knowing that Galileo now wanted to publish not only their sonnets but the challenges to his discoveries, together with his responses, in the new edition of the *Sidereus nuncius*, were uncomfortable with the idea of being perceived as Galileo's allies in his predictably aggressive counterattacks.<sup>124</sup> Sertini went so far as to suggest that Galileo answer all challenges "without mentioning anybody, and by remaining within the specific boundaries of the issue, for it seems the best thing to do, and the one I would prefer."<sup>125</sup>

Although the Medici and the court writers were not Galileo's scientific peers, their caution is like that of a scientist's colleagues in evaluating a discovery claimed by the scientist. At first glance it may seem odd that neither Cosimo nor the court writers seemed to take the opinions of members of the professional elite of astronomers, such as Kepler, as decisive in

120. Ibid., no. 357, pp. 398–99.

121. Ibid., no. 277, p. 299.

122. Ibid., no. 265, p. 283.

123. Ibid., no. 372, pp. 411–13.

124. Ibid., no. 332, pp. 373–74.

125. Ibid., no. 372, p. 412. This new Italian translation was never published. A probably unauthorized reprint of the original Latin version of the *Nuncius* appeared at Frankfurt in the fall of 1610.

determining their own endorsements.<sup>126</sup> This apparent puzzle can be solved by remembering that Cosimo and the writers were actually Galileo's peers (or superiors) by virtue of belonging to the same institution: the court. The court was not a scientific institution but the place where representations of the prince's power were produced; and Galileo was hired there less as an astronomer than as a producer of spectacular dynastic emblems. Therefore, he needed the writers to accept and articulate his discoveries in court cultural productions and representations of the grand duke's power.<sup>127</sup> On the other hand, the Florentine courtiers did not need to believe Kepler or, for that matter, Galileo himself. The opinions of leading astronomers were not binding for the courtiers. The only authority they knew was that of their prince or of their prince's patrons.

Galileo's delicate position in this phase of transition from the university to the court reflects the novelty of the socioprofessional identity he was trying to establish for himself. In a sense, he was a socioprofessional hybrid. He presented himself as a "new philosopher," a role that—given the disciplinary hierarchy structuring the university—could be legitimized only at court. Yet, even though the people who had the professional skills to judge his achievements were mathematicians, not court writers and gentlemen, and even though Galileo might have been in serious trouble had Kepler turned down his claims about the existence of the satellites of Jupiter, Kepler's recognition of his discoveries was not sufficient to win over the courtiers. And Galileo needed the endorsement of courtiers and prince because only at court could he become a philosopher. Schematically put, the mathematicians' endorsement of Galileo's discov-

<sup>126</sup>. The Medici respect of the Jesuits' scientific authority may be seen as contradicting my point. However, the positive impact that that recognition, in December 1610, of the reliability of the telescopic discoveries had on Galileo's legitimization cannot be interpreted as a sign of their "technical credibility" alone. Their opinion was probably more influential than Kepler's because they were correctly perceived as the mathematicians of the pope. This was particularly true in Florence, where, with the legitimacy of the Medici dynasty precariously dependent on the pope, religious orthodoxy and respect of the Church's positions were crucial. In respecting the Jesuits' views, the Florentine courtiers were thus bowing to the authority of the papal court.

<sup>127</sup>. Galileo's concern with the "media coverage" of the Medicean Stars or of his discoveries in general was not limited to the Florentine court. For instance, he was very pleased that the Florentine Jesuits to whom he had shown the satellites believed their existence and incorporated those discoveries "in preachings and orations, with very gracious images" (*GO*, vol. 10, no. 436, p. 484). Similarly, Galileo was quite pleased that Monsignor Giovanni Battista Agucchi—a Roman courtier and future bishop—used the Medicean Stars for an impresa commissioned by a patron who wanted it delivered in a literary academy (*GO*, vol. 11, pp. 205, 220, 225, 249, 255, 264). The manuscript of Agucchi's impresa—"Del medio"—is at BNCF, "Galileiani 246," fols. 96–110. Similarly, Galileo's friend Cigoli celebrated his discoveries by painting the Madonna standing on the earth-like moon in Rome's Santa Maria Maggiore (*GO*, vol. 11, no. 814, p. 449).

eries would have been *necessary and sufficient* to establish his credibility *as a mathematician*, but that same endorsement was only *necessary* (and no longer sufficient) in certifying Galileo's credibility *as a court philosopher*. As we will see, this tension between two audiences, two discourses, two different socioprofessional identities, and the different forms and levels of legitimization that went with them, characterized Galileo's entire courtly career.

Shapin's study of the seventeenth-century "house of experiments" suggests that the legitimization of experimental practices in England was caught in an analogous social paradox. Those who had the technical skills to perform experiments (and quite likely to understand them) did not have the high social status needed to be perceived as having "the qualifications to make knowledge."<sup>128</sup> Conversely, many of the gentlemen who had the social qualifications to "make knowledge" did not necessarily have the skills. They could certify, but they often could not figure out how or what to certify.

### The Career of the Medicean Stars

Although Galileo was not successful with his first attempts to enlist the support of the court writers, the Medicean Stars eventually became an integral part of the discourse of the court.<sup>129</sup> The medal celebrating Galileo's discovery of the planets was eventually struck. Jupiter sitting on a cloud with the four stars circling about him was presented as an emblem of Cosimo II, whose effigy occupied the other side of the medal (fig. 3). The stars were represented in sonnets, in theatrical machines, in operas, in medals, and in frescoes celebrating the divine pedigree of the house of Medici. We encounter them again in the most important court spectacle of the carnival of 1613—the *barriera* of 17 February.

128. Steven Shapin, "The House of Experiment in Seventeenth-Century England," *Isis* 79 (1988): 395.

129. As noted, the vernacular edition of the *Siderenus nuncius* was never published. Surviving sonnets to the Medicean Stars include those of Buonarroti (GO, vol. 10, p. 412), Salvadori (GO, vol. 9, pp. 233–72), and Piero Bardi (GO, vol. 10, p. 399). Claudio Seripandi's sonnet is lost; Niccolò Arrighetti's was left in manuscript form until it was published in Nunzio Vacalluzzo, *Galileo Galilei nella poesia del suo tempo* (Milan: Sandron, 1910), pp. 59–60. We do not know whether Chiabrera wrote a sonnet after Sertini's invitation (Galileo had sent him an autographed copy of the *Siderenus nuncius*, which is now at the University of Oklahoma at Norman), but we do know that he included the Medicean Stars in at least one of his compositions. Salvadori's "Per le Stelle Medicee temerariamente oppugnate" makes explicit the use of patronage for the legitimization of Galileo's discoveries. After retracing a mythological history of the Medici family that stresses the link between the Medici and Jupiter (and his tremendous power), Salvadori displays his incredulity at the arrogance of those who, by challenging the existence of the Medicean Stars, were challenging Jupiter's (or Cosimo's) own power (GO, vol. 9, p. 272).



Fig. 3. Gaspare Mola, oval medal struck around 1610 to commemorate Cosimo II and the discovery of the Medicean Stars. From Karla Langedijk, *Portraits of the Medici* (Florence: SPES, 1983), vol. 1, p. 579.

It began at two o'clock Florentine time in the theater of the Pitti Palace in front of a selected court audience.<sup>130</sup> After a virtuoso display of spectacular theatrical machines and effects designed by the court engineer, Giulio Parigi, the spectacle began to reveal its mythological plot.

Cupid set his own realm over Tuscany, inaugurating a Golden Age. Unfortunately, peace was soon threatened. Cupid and his knights (six court pages) were faced by a monstrous dragon (producing flames and smoke) and twelve Furies led by Nemesis. Although the dragon, Nemesis, and the Furies were eventually made to disappear into a trap conveniently connected to hell, Cupid and Tuscany were not safe yet. Sdegno Amoroso (Disdain of Love) and his five ferocious and barbarous-looking "Egyptian knights" jumped on stage from hell's mouth.<sup>131</sup> A new combat began, but peace and Tuscany's Golden Age were quickly reestablished by divine (Cosimo I's?) intervention.

Thunder was heard and Jupiter arrived on a shimmering cloud (a part of a very complicated machine which changed in appearance as it moved across the stage). Jupiter was not alone on arrival:

down below, among the clouds, appeared the four stars that circle Jupiter discovered by Galileo Galilei from Florence, Mathematician to His Highness, with the marvelous spyglass, and like the ancients

<sup>130</sup>. Nagler, *Theatre Festivals of the Medici*, pp. 119–121.

<sup>131</sup>. Ibid., 122.

who transposed to the sky their greatest heroes, he—having discovered these stars—called them Medicean, and has dedicated the first to His Most Serene Highness, the second to Prince Don Francesco, the third to Prince Don Carlo, the fourth to Prince Don Lorenzo.<sup>132</sup>

The machine brought Jupiter close to the grand duchess, to whom he sang his aria; then it slowly disappeared from the stage. In the process, the four Medicean Stars turned into four flesh-and-blood knights: “After Jupiter finished his song some thunders were heard, the cloud vanished and there appeared four stars which soon turned into four knights who stood up.” The Cyclops (who had come on stage right before Jupiter’s arrival) handed thunderbolts to the four knights. With such weapons, they were ready to start the new joust in Jupiter’s name. The name of the joust was “The Arrival of the Knights of the Medicean Stars.” Peace soon followed. The ladies in the audience joined the knights on stage and the final ball began.<sup>133</sup>

The rest of the city had its share of Medicean Stars as well. Two days later, a simpler version of the *barriera* went through the city as a carnival procession. The Medicean Stars, together with the Furies and Nemesis, were in the second troupe of the pageant. However, the stars did not stop moving. Together with Jacopo Cicognini—one of the authors of the *barriera*—they migrated to Rome where, on 9 February 1614, they re-emerged at the wedding of Don Michele Peretti, prince of Venafro, and Princess Anna Maria Cesi—an event recorded in *avvisi* and diaries of contemporaries as the highlight of the Roman carnival of 1614.<sup>134</sup>

That evening, “great was the confusion, the noise, and the excitement of the crowd” near the Palazzo della Cancelleria, where Cicognini’s play celebrating the wedding was to be performed. “One could see gathered together all the Roman nobility, . . . the ladies and the princes preceded by a great number of torchbearers and elegantly-dressed servants.” The theater was full when the stage curtain was finally raised. A small cloud with a golden chariot on it appeared from the right. Venus was the charioteer. She was searching for her son, Love, who had escaped from Olympus. Love was soon found “with golden hair, all naked, with a most beautiful veil covering only those parts that Nature teaches us to keep hidden.” Love’s wings were “most delicate and all covered with jewels.” He held a bow with his right hand while a quiver full of more precious stones was hanging from his shoulder. More jewels, “even more remarkable for beauty and value, decorated his necklace.”

Venus asks Love why he has left Olympus, to which the boy answers

132. Giovanni Villifranchi, *Descrizione della Barriera e della Mascherata fatte in Firenze a’ XVII & a’ XIX di Febbraio 1613 . . .* (Florence, Sermartelli, 1613), pp. 32–33.

133. Ibid., p. 38; and Nagler, *Theatre Festivals of the Medici*, pp. 123–25.

134. Orbaan, *Documenti sul barocco in Roma*, pp. 214–215.

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that he has descended to earth to “unite in a holy bond the quality of a great prince and the purity of a great lady.” Although pleased by Love’s mission, Venus is saddened by the setting in which such a lofty event is taking place: a Rome that is no longer glorious but ruined. Being unable to bear such a view, the goddess immediately restores Rome to its ancient beauty. This instantaneous restoration infuses the bride and the groom with joy and they start dancing to celebrate Love’s arrival in a newly beautiful Rome. They are soon joined by the noble audience, with the exception of the cardinals, whose status prevented them from dancing.

At the end of the ball, the scenery is quickly changed. We are now on Olympus, with Venus trying to convince the other gods to help her retrieve her son, Love, who does not want to leave Rome. He likes it down there now. Jupiter intervenes. The usual thunder is heard, the sky opens, and Jupiter appears “from a great distance, covered with gold, and of inconceivable splendor.” The clouds now move with slow, circular motion. Jupiter is seated in their midst “on a throne of ivory and ebony, shiny with gold and gems . . . wearing a fiery royal crown.” He wears appropriately godly clothes embroidered with stars. And “around him are seen four children with silver armor and golden helmets topped with turquoise plumes and a star emerging from them.”<sup>135</sup> A cousin of the bride, Federico Cesi, the founder of the Accademia dei Lincei, was present at the event and reported to Galileo that everyone enjoyed the play and the place of the Medicean Stars in it, with the exception a few “Peripatetic monkeys” who did not appreciate Cicognini’s celebration of Galileo’s novelties.<sup>136</sup> Cesi apparently felt obliged to enter into a little dispute with them.

This was 1614. Probably as a result of Bellarmine’s admonition of Galileo in 1616 and of Cosimo II’s declining health and control over cultural and political policies, Galileo’s discoveries did not continue the career in the Medici mythology they had begun so brilliantly, and they do not seem to have reappeared in Rome either. Their visibility declined even further after 1621 when, following Cosimo II’s death, Grand Duchess Cristina and her counselors took over the government of Tuscany and the

135. Jacopo Cicognini, *Amor pudico* (Viterbo: Discepolo, 1614), contains the text of the play. I have not been able to locate a copy of it. On the party, see Filippo Clementi, *Il Carnevale romano nelle cronache contemporanee* (Città di Castello: Unione Arti Grafiche, 1939), pp. 396–411. My description of the play is based on Clementi. The quotes are from the contemporary *Avvisi di Roma* cited therein. The *Avviso* reproduced in Orbaan sketches a more intricate plot.

136. “Cicognini certainly satisfied me. Finding myself at the party and scenic soirée [pageant] of the wedding of Princess Peretti, my cousin, I saw that among the other planets he had, with much propriety, placed the Medicean ones around Jupiter. Everybody loved the spectacle and the discoveries [novelties] included in their proper place. Well, it is true that I made myself heard by some Peripatetic monkeys who could not stop themselves from snarling like old men hostile to any novelty” (GO, vol. 12, no. 980, p. 29).

management of court culture. Carnival festivals were played down, and sacred comedies became the dominant genre.<sup>137</sup> Moreover, the lack of an actual prince (Ferdinand II would reach his majority only in 1628) made it difficult to develop new prince-centered cultural productions. Jupiter was unemployed. When, in 1628, Ferdinand II finally took power, Galileo had already developed his patronage niche in Rome.

References to the Medicean Stars, however, were still included in the work of writers connected to the Medici court. Alessandro Tassoni, in his (then) famous *Secchia rapita*, had Jupiter enter the scene “with those stars that have been found around his head,” while Chiabrera—a poet on the Medici payroll—praised Galileo for having put “the name of our great Medici among the eternal stars, a name so powerful that it even improves the value of stars.”<sup>138</sup> Although less conspicuous than during Cosimo II’s reign, the presence of the Medicean Stars in Florentine court culture continued, as shown by a large painting (listed in the 1638 inventory of the Pitti Palace but now lost) of Jupiter riding an eagle surrounded by four *putti* on the Medicean Stars.<sup>139</sup>

As a result of the court moving from the Palazzo della Signoria to the Pitti Palace, a new Medici Olympus was painted in the new palace’s Planetary Rooms. The context in which the pictorial program of the Planetary Rooms was developed (about ten years after Galileo’s condemnation) posed serious problems to the design of the representation of Jupiter and the Medicean Stars. Emblematics offered the way out of the dilemma.

Just as Galileo linked the Medicean Stars to Jupiter-Cosimo I’s virtues in the dedication of the *Sidereus nuncius*, the Pitti Palace’s Room of Jupiter (one of the Planetary Rooms)<sup>140</sup> presented the god surrounded by the Medicean Stars as the four cardinal virtues (fig. 4).<sup>141</sup> Such an emblematic representation of the Medicean Stars was repeated—this time much more explicitly—in a large engraving of 1664 (fig. 5). Cosimo III was there represented as Augustus.<sup>142</sup> Above him, we find Jupiter (resembling

137. Ludovico Zorzi, *Il luogo teatrale a Firenze* (Milan: Electa, 1975), p. 88.

138. Alessandro Tassoni, *La secchia rapita* (Ronciglione, 1624), in Alberto Asor Rosa, ed., *I poeti giocosi dell’età barocca* (Bari: Laterza, 1975), p. 28; and Gabriello Chiabrera in his “Sermone a Gio. Francesco Geri,” in Alberto Asor Rosa, ed., *La lirica del Seicento* (Bari: Laterza, 1975), p. 134. For a comprehensive compilation of poems referring to Galileo and to the stars, see Vaccalluzzo, *Galileo Galilei nella poesia del suo tempo*.

139. The same theme would be adopted later for Cosimo III’s medals. See Figures 10, 11, 12.

140. “. . . canvas depicting Jupiter riding the eagle with four putti representing the Medicean Stars, 3<sup>1</sup>/<sub>3</sub> × 2<sup>1</sup>/<sub>2</sub> braccia” (ASF, “Guardaroba medicea 535,” fol. 143).

141. The frescoes were begun by Pietro da Cortona and completed around 1665 by his pupil Ciro Ferri (Langedijk, *Portraits of the Medici*, 1: 210).

142. Ibid., pp. 211–12.



Fig. 4. Pietro da Cortona, *Jupiter Accompanied by the Cardinal Virtues*, Room of Jupiter, detail of ceiling, Palazzo Pitti, Florence. From Karla Langedijk, *Portraits of the Medici*, vol. 1, p. 209.

Cosimo's father, Ferdinand II). On the clouds around Jupiter/Ferdinand II we find the four cardinal virtues (embodied by the former Medici grand dukes) with the four Medicean Stars shining over their heads.<sup>143</sup>

The Medicean Stars reemerged conspicuously in the Medici mythology during the reign of Cosimo III (1670–1723). The grand duke's name lent itself to references to the Medicean Stars especially because, having five ancestors, he could be portrayed as directly related to Jupiter and the four stars. The revival of the Medicean Stars was most evident in 1661 on the occasion of the politically important wedding of Prince Cosimo and Marguerite-Louise d'Orléans—the cousin of Louis XIV.<sup>144</sup> The *Mondo Festeggiante*, an equestrian ballet, was the highlight of a long series of ceremonies, pageants, and spectacles.<sup>145</sup> According to the official descrip-

<sup>143.</sup> Ibid., pp. 215–16. Ciro Ferri also was the painter who completed the Planetary Rooms. Spierre engraved the frontispiece of the memoirs of the Cimento. See also Filippo Baldinucci, *Cominciamento e progresso dell'arte dell'intagliare in rame* (Florence: Stecchi, 1767), pp. 215–16.

<sup>144.</sup> Langedijk, *Portraits of the Medici*, 1: 216–17.

<sup>145.</sup> *Memorie delle feste fatte in Firenze per le reali nozze de' Serenissimi Sposi Cosimo Principe di Toscana e Margherita Luisa d'Orleans* (Florence: Stamperia di SAS, 1662).



Fig. 5. Frans Spierre, engraving after Ciro Ferri, *The Medici Stars Protecting Cosimo III*, 1664. From Karla Langedijk, *Portraits of the Medici*, vol. 1, p. 208.

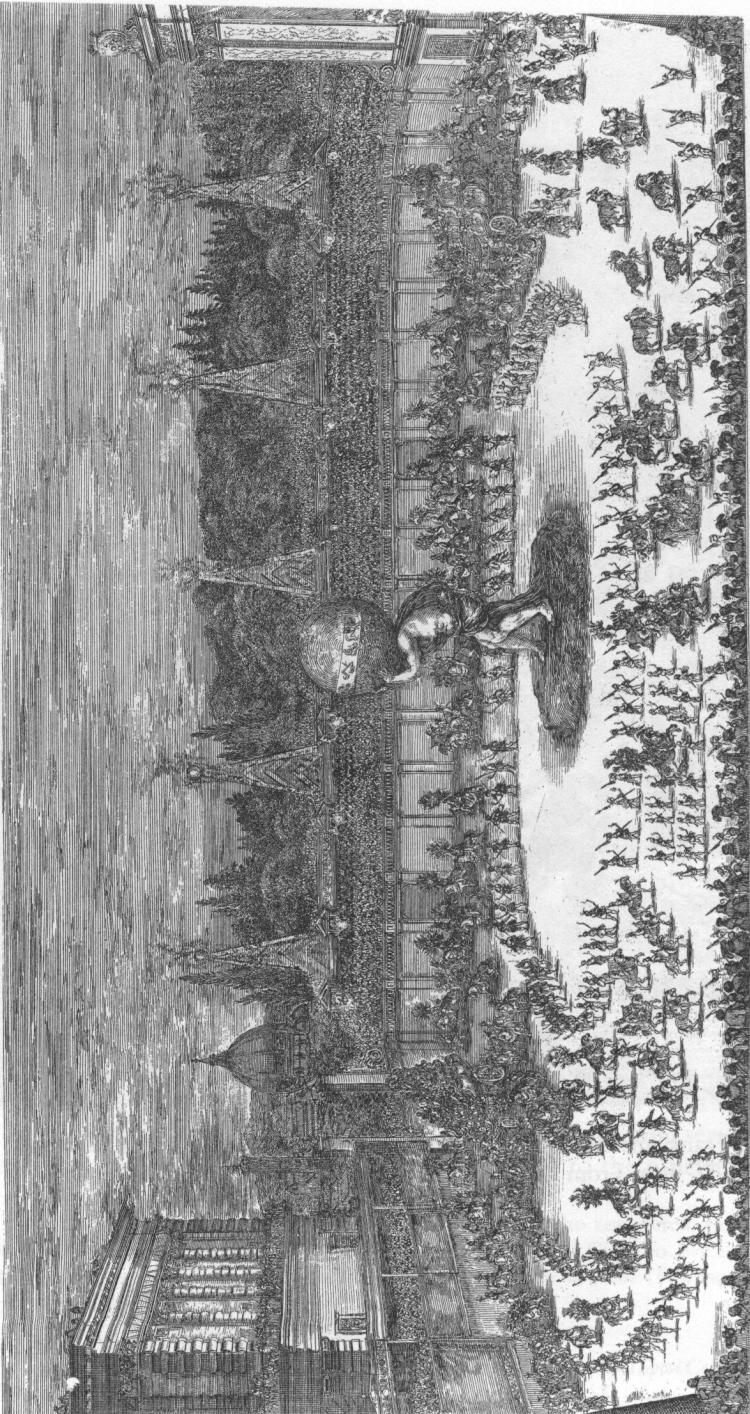


Fig. 6. Stefano della Bella, engraving of Hercules carrying the cosmos on his shoulders during a festival celebrating the wedding of Prince Cosimo de' Medici and Marguerite Louise d'Orléans. From Alessandro Carducci, *Il mondo festeggiante*. Courtesy of the

tion of the event, twenty thousand spectators were present at the ballet.<sup>146</sup>

The spectacle began with the entrance of an exceptionally large theatrical machine representing Hercules carrying the cosmos on his shoulders (fig. 6). Once Hercules reached the center of the stage, the machine slowly transformed itself into Mount Atlas. Numerous knights representing the earth's four continents entered the stage paying homage to Hercules and—implicitly—to the new “Herculean” couple being celebrated there. But while the knights of Europe and America were happy about the wedding, those of Asia and Africa felt threatened by such a powerful union. An elegant duel-ballet between the two factions began but did not last long.<sup>147</sup>

Powerful thunder was heard, announcing Jupiter's arrival on a very tall theatrical machine surrounded by clouds (fig. 7). Immediately, all knights stopped dueling. As soon as the machine had lowered Jupiter to the level of the stage, the clouds disappeared and “Four knights riding four elegant horses appeared very close to Jupiter. They symbolized the four Medicean Stars which [this is a quotation from the *Nuncius*] never depart from his side.”<sup>148</sup> Jupiter then sang a song celebrating the wedding, one which would make Cosimo's Medicean Stars even more beautiful and shining because of the new splendor contributed by the golden lilies of Marguerite-Louise.<sup>149</sup> Apollo joined Jupiter praising the wedding as the union of the “French Sun and the Medicean Stars.”<sup>150</sup> As the spectacle continued, “Four Medicean Stars reached His Highness and took their places around him, that is, around the Tuscan Jupiter, and they never left him during the remaining part of the ceremony, but they always accompanied him and remained orderly and close to him throughout his pageants.”<sup>151</sup>

The Medicean Stars also appeared in a medal struck on the occasion of Cosimo's wedding. His impresa was a ship at sea guided by the Medicean Stars with the motto: *Certa Fulgent Sidera* (fig. 8). They were also represented in the cycle of frescoes called the “Medici Apotheosis” painted by Luca Giordano on the ceiling of the Medici-Riccardi Palace<sup>152</sup> as well as in other official medals (figs. 9, 10, 11).<sup>153</sup> When Cosimo died in 1723, a

146. Alessandro Carducci, *Il mondo festeggiante, balletto a cavallo fatto nel teatro congiunto al palazzo del Sereniss. Gran Duca per le reali nozze de' Serenissimi Principi Cosimo Terzo di Toscana e Margherita Luisa d'Orleans* (Florence: Stamperia di SAS, 1661).

147. *Memorie delle feste*, p. 106.

148. Carducci, *Il mondo festeggiante*, p. 46.

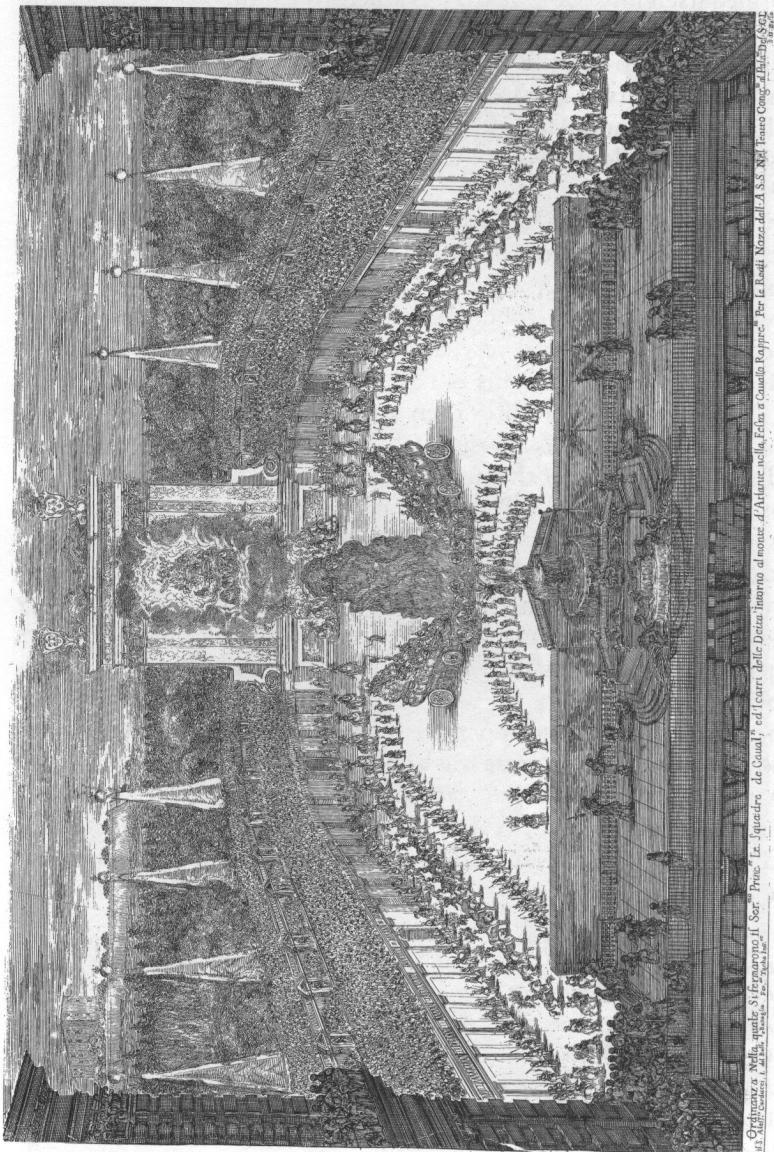
149. Ibid., p. 49.

150. Ibid., pp. 51, 53.

151. Ibid., p. 53.

152. Langedijk, *Portraits of the Medici*, 1: 215; 2: 639.

153. Ibid., 2: 630–32, 637, 639. At pp. 630–32, Langedijk has not noticed either the sign of Jupiter or the four stars in these medals.



Stefano della Bella, *quadro S'ergono il Serpente, il Principe, le Squadrone de Cavalry ed i carri delle Duez, fanno al monte d'Ariane nella Festa a Caen*, da S. S. S. Reale Nota del Teatro Comique di Parigi.

Fig. 7. Stefano della Bella, engraving of Jupiter arriving among clouds (center) during a festival celebrating the wedding of Prince Cosimo de' Medici and Marguerite-Louise d'Orléans. The four "Medicean Stars" are at the base of the theatrical machine. From Alessandro Carducci, *Il mondo festeggiante.* Courtesy of the Harvard Theater Collection, Harvard University.



Fig. 8. Francesco Tavani, later copy (1666) of a medal Tavani made on the occasion of the marriage of Prince Cosimo and Marguerite-Louise d'Orléans in 1661. From Karla Langedijk, *Portraits of the Medici*, vol. 1, p. 640.

medal with the Medicean Stars was placed on his chest (fig. 12). The Medici dynasty survived him by only fourteen years.

#### Court Culture, Absolutism, and the Legitimation of Science

Even as the Medicean Stars began to reappear in court mythology during the reign of Ferdinand II, their association with Galileo was on the wane. His condemnation of 1633 hastened the process. Galileo's role in the stars' discovery was mentioned in the *barriera* of the carnival of 1613, but no such reference is to be found in the *Mondo Festeggiante* of 1661. By that time, Medici court culture had severed the Medicean Stars not only from their discoverer but from astronomy as well. As shown by the *Mondo Festeggiante*, the Medicean Stars were stars no longer. All that was left of them was a dynastic fetish, a name assigned to Jupiter-Cosimo's knights. Analysis of this process of fetishization uncovers both the avenues and structural limits of Medici patronage for the legitimation of science.

Medici patronage did not reward authors of scientific theories or proponents of research programs but appreciated marvels that fit the discourse of the court and contributed to legitimizing the Medici image. Consequently, Galileo could be rewarded as a celestial ambassador of the Medici glory but not as a Copernican astronomer. Galileo understood well the discourse of the court and presented the satellites of Jupiter to the Medici not as Copernicus-supporting astronomical discoveries but as dynastic emblems.<sup>154</sup>

154. Galileo's awareness of the codes of Medici patronage can be found not only in his representation of the satellites of Jupiter as dynastic emblems. In fact, while negotiating with



Fig. 9. Luca Giordano, *Medici Apotheosis*, galleria ceiling, Palazzo Medici Riccardi, Florence. From Karla Langedijk, *Portraits of the Medici*, vol. 3, p.

1513.



Fig. 10. Anonymous, no date. Medal celebrating Cosimo III. On the reverse, surrounded by the motto "FAMAM EXTENDERE FACTIS," is Fame floating among clouds over the globe. Directly above Fame's trumpet is Jupiter surrounded by the Medicean Stars. From Karla Langedijk, *Portraits of the Medici*, vol. 1, p. 631.

The interesting paradox of Galileo's successful patronage strategy is that he had to efface his authorship in the discovery in order to become a more legitimate author, that is, a philosopher. As we have seen, this ritual effacement was rooted in the dynamics of absolute power and the way it framed authorship. In his dialogue on the court, Torquato Tasso presented the court as a gathering through which courtiers increase the prince's reputation and honor because it is only by doing so that—like a stream becoming such by being fed from a spring—they could gain honor for themselves.<sup>155</sup> Similarly, as shown by Galileo and Pellisson (but also by the Cimento's dedication of the *Saggi*), a subject could become a legitimate author not by presenting himself as an arrogant producer (a "challenger") but by presenting himself as the prince's "agent." In this way, the client could gain legitimization while the prince remained, so to speak, the ultimate, absolute author.<sup>156</sup>

Vinta for his position at court, he tried to be perceived as an appealing client by presenting himself as literally swamped by marvels (GO, vol. 10, no. 307, p. 351).

155. Torquato Tasso, *Il malpiglio, o vero de la corte*, reprinted in Cesare Guasti, ed., *I dialoghi di Torquato Tasso* (Florence: Le Monnier, 1901), 3: 13.

156. Differently from potlatches, where the competitors engage in conspicuous consumption in order to challenge (and possibly ruin) each other, we have here a more disciplined format in which one party (the prince) is assumed to be the winner from the start. Consequently, the other party can gain status not through challenging the prince (who is ax-



Fig. 11. Giovanni Battista Foggini, ca. 1683, reverse of a bronze medal celebrating Vittoria della Rovere, Cosimo III's mother. Above Fame is Jupiter and the four Medicean Stars. From Fiorenza Vannel and Giuseppe Toderi, *La medaglia barocca in Toscana*, table 1.

However, the prince could not celebrate his image by himself. He needed the client to do so. But patrons and clients could not openly trade legitimization for celebration. This would have destroyed the image of princely power that the client was supposed to celebrate and that, in turn, was supposed to legitimize the client himself. As Marin puts it, "The only outlet is for both sides to keep the secret of complicity."<sup>157</sup>

It was the client who had to propose and deploy the trick, and it was precisely for doing what the prince could not do that the client was rewarded. This may explain why Galileo and Pellisson presented themselves

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iomatically unchallengeable) but by "wasting himself" in ways that enhance the image of the prince. Because the prince is not challenged (but actually benefits from the client's "wasting himself") he can then "recognize" the tribute to his image by rewarding the client. But this reward is not costly to the prince. It is more a recognition than a real reward. The link between these processes and the ways in which political absolutism developed out of the domesticization of the aristocrats through court culture is, I think, telling. The aristocratic challenging drive is turned onto itself. The "wasting" of the clients illuminates the prince's power.

157. Marin, *Portrait of the King*, p. 44.



Fig. 12. Antonio Selvi, bronze medal celebrating Cosimo III. On the reverse, under the motto "CERTA FULGENT SIDERA," is a ship guided by the Medicean Stars. From Fiorenza Vannel and Giuseppe Toderi, *La medaglia barocca in Toscana*, table 115.

as not giving anything to their prince that was not already his. It was only by doing so that the rewards the prince would bestow on them would not appear as remuneration for a service they had performed. The clients had to efface themselves as authors in order to keep the trick hidden. Only thus could the prince be represented as the ultimate author of whatever his clients produced and, therefore, have his image celebrated while, at the same time, legitimizing his clients as the "agents" through which the celebration was produced.<sup>158</sup> Quite literally, Galileo could not be an independent philosopher; he could only be the philosopher of the grand duke.

Consequently, the complete alienation of the Medicean Stars from their discoverer displayed in the *Mondo festeggiante* and in the other later representations of the stars was already inscribed in the patronage strat-

158. However, because the client was in charge of the trick, in a sense, he could trick the patron himself. Nonetheless, the patron was not losing anything by being "tricked" because the trick ended up confirming his power image. The prince is an "omnipotent puppet." See *ibid.*, p. 44.

## CHAPTER TWO

egy Galileo had adopted fifty years before. In the long run, his extraneousness to the discovery of the stars, which Galileo had claimed rhetorically, became reality. The Medicean Stars became nothing but Medici fetishes and were celebrated as such within Medici court culture until the very end of the dynasty. Galileo left the stage much earlier.<sup>159</sup>

Galileo obtained the title of philosopher by presenting his discoveries as having been made possible by the prince himself. However, he did not gain Medici support for the legitimization of Copernican astronomy and the mathematical analysis of nature. That was something that did not fit the codes of the prince's power image.<sup>160</sup>

Although the codes of Medici court patronage were both a blessing and a curse for Galileo, they represented an opportunity he could not ignore. Although the Medici's patronage agenda may have overlapped only locally or temporarily with Galileo's strategies for social and cognitive legitimization, the overlap was of great historical significance. Besides its obvious importance for Galileo's own career, his being hired at the Medici court with the title of philosopher may indicate the intersection between two more general historical processes: the formation of court culture associated with the emergence of the absolute state, and the process of social legitimization of science. Let me briefly outline how the strategies for the social and cognitive legitimization of science that emerge from the analysis of Galileo's career may be compared to other patterns of socioprofessional legitimization also connected to the formation of court society and culture.

Recent works on early modern courts suggest that, although baroque courts differed in specific ways, the fundamental features of their culture were closely associated with the discourse of increasingly absolute princes and displayed a number of similarities across national boundaries.<sup>161</sup> One

159. Interestingly, Galileo was resurrected later on by Prince Leopold, Cosimo II's son, as part of his attempt to celebrate the Medici image—this time by presenting the Medici as having patronized (in his eyes) not only European art but European science as well. Again, Leopold was not celebrating Galileo *per se*, but rather because he happened to fit very well into a narrative of Medici self-celebration that Leopold had developed.

160. The paradoxes inherent in Galileo's patronage-bound representation of the Medicean Stars were connected with the other paradox embodied in his moving to court—that is, to an institution that could legitimize the new socioprofessional role he was seeking, but that could not understand or care about the technical dimensions of his work.

161. See, for instance, Elias, *Court Society*; idem, *The History of Manners* (New York: Pantheon, 1982); idem, *Power and Civility*, (New York: Pantheon, 1982); Marin, *Portrait of the King*; Jean-Marie Apostolidès, *Le prince sacrifié* (Paris: Minuit, 1985); idem, *Le roi machine* (Paris: Minuit, 1981); Sergio Bertelli and Giuliano Crifò, eds., *Rituale, ceremoniale, etichetta* (Milan: Bompiani, 1985); Amedeo Quandam and Marzio Achille Romani, eds., *Le corti farnesiane di Parma e Piacenza*, (Rome: Bulzoni, 1978), 2 vols.; Adriano Prosperi, ed., *La corte e il "cortegiano": Un modello europeo* (Rome: Bulzoni, 1980); Hubert Ch. Ehalt, *Ausdrucksformen Absolutischer Herrschaft* (Munich: Oldenbourg, 1980); Frank Whigham, Jr., *Ambition and Privilege: The Social Tropes of Elizabethian Courtesy Theory* (Berkeley: University of California Press, 1984); Jean-François Solnon, *La Cour de France* (Paris: Fayard, 1987); and Ran-

common feature was self-referentiality. Especially since the end of the sixteenth century, court society tended to close itself off (both culturally and geographically) from surrounding society to focus on and refer exclusively to itself, to the prince, or to the culture of other courts. It is to this process that we can relate the development of closed theatrical court spaces which then replaced public spectacles.<sup>162</sup> Similarly, if we look at court literature and poetry, we soon notice that their subject matter was a more or less subtle mix of the ruling family's mythologies with contemporary events (ceremonies, military exploits, public works and monuments) and the lives and works of living courtiers. The works of the writers courted by Galileo to write about the Medicean Stars (Gabriello Chiabrera, Michelangelo Buonarroti the Younger, Andrea Salvadori; or his friend Salvadore Coppola) are full of references to actual court life. A similar pattern can be found in court paintings.<sup>163</sup>

The descriptions of some of the court spectacles of the time indicate another aspect of this self-referentiality: the courtiers acted themselves. Together with professional performers, courtiers and the prince himself went on stage and performed roles commensurable with those they had in actual life. In the *barriera* of 1613, Cosimo II landed on stage from a galley coming from Elba's Cosmopoli and, crossing the stage, sang a song to his grand duchess in the audience.<sup>164</sup> In the *Mondo Festeggiante* of 1661, Cosimo III was on stage (surrounded by the Knights of the Medicean Stars) leading his courtiers in the equestrian ballet.<sup>165</sup> Quite literally, the court represented itself and its mythologies through court spectacles.<sup>166</sup>

The effect was a cultural closure which sometimes accompanied the geographical isolation of the court from the rest of society. Versailles is probably the most visible example of this process, but the various Medici *Ville* in the countryside near Florence shared Versailles' political function.<sup>167</sup> They were princely gardens of Eden. Together with this cultural-geographical isolation of the court from the city and the "crowds" which populated it, we find the formation of a new social group, that of the court society, out of (in the Florentine case) the former patriciate of commercial origins. This closure gave the would-be courtiers a sense of differentiation

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dolph Starn and Loren Partridge, *Arts of Power* (Berkeley: University of California Press, 1992).

162. See note 23 above.

163. See, for instance, Allegri and Cecchi, *Palazzo Vecchio e i Medici*, pp. 145–47.

164. Nagler, *Theatre Festivals of the Medici*, p. 123.

165. Carducci, *Il mondo festeggiante*, pp. 60–66.

166. Elias, *Court Society*, p. 112; for a Spanish example, see J. E. Varey, "The Audience and the Play at Court Spectacles: The Role of the King," *Bulletin of Hispanic Studies* 61 (1984): 399–406.

167. Apostolides, *Le roi machine*, especially "Les plaisirs de l'île enchantée," pp. 93–113.

from the urban crowds and helped shape their new social identity. If Louis XIV used Versailles to control a politically restless aristocracy, the Medici used the court to create an aristocracy out of their former fellow merchants. Contemporary treatises on the court refer to its culture with a specific term: *civiltà*. As Matteo Pellegrini put it in 1624, "The Prince is the heart and the court the limbs of civilized living [*vita civile*]." Courtly lifestyle is civility itself.<sup>168</sup>

But the formation of court society and its increasing isolation from the lower classes did not affect the status only of the upper classes that it included or controlled. The development of court society required more than the formation of court aristocracy, that is, of a competent and collusive audience for the representations of the prince's power. As indicated by the development of official academies of fine arts as institutions that controlled the codes of those representations, competent producers of the prince's images were needed as well. Although artists have always celebrated the image of the powerful, we find that with the emergence of the baroque court and the centralized state the artistic representations of the prince's power began to be controlled by specialized institutions. As a result of their incorporation in this sort of artistic bureaucracy, academic *artists* obtained a much higher social status than that of the nonacademic *craftsmen* practicing the visual arts.<sup>169</sup>

It is here that the development of court society and culture intersects with the process of social legitimization of science. While princes like the Medici were trying to develop absolute states and needed legitimizing representations of their power, university mathematicians like Galileo were facing a status gap between them and the philosophers. As mentioned earlier, this gap in status delegitimized the use of mathematics as a tool for the study of the physical dimensions of natural phenomena. Therefore, in the same way artisans had become academic artists by representing the prince's mythologies of power in painting, sculpture, and architecture, Galileo turned himself from a mathematician into a philosopher by representing the satellites of Jupiter as Medici dynastic emblems. Although the court was not a scientific academy, it was an institution that could offer social legitimization which, in turn, could help establish the credibility of mathematicians-turned-philosophers. Given these disciplinary hierarchies, existing social institutions, and patterns of sociocultural change, the court represented Galileo's most promising option, although a problematic one.

My concern here is not with presenting Galileo's career and strategies

168. Pellegrini, *Che al sivo è convienevole il corteggiare*, pp. 82, 171.

169. For a general treatment of the topic, see Nikolaus Pevsner, *Academies of Art* (Cambridge: Cambridge University Press, 1940). For the Accademia del Disegno, see note 22 above.

of social legitimization as *determined* by the court and its forms of patronage. Galileo did not need to move from the university to the court and did not discover the satellites of Jupiter because he was a client of the Medici. However, the historical processes, institutions, and patronage dynamics that made *possible* Galileo's career were not unique to him. Similarly, the fundamental aspects of baroque court culture and patronage related to the discourse of the absolute ruler and the low epistemological status assigned to mathematics by a disciplinary hierarchy that privileged theology and philosophy were by no means exclusive to the Florentine context.<sup>170</sup>

To say that Galileo was simply lucky with his patronage strategies—or to say that he was just an exceptional scientist—is to ignore the broader historical dynamics that made possible his unusual career and informed his strategies for the legitimization of Copernicanism and mathematical physics. Rather, I would say that Galileo was a great *bricoleur*. Many of the ingredients of his career (from telescopes to courts) were already there. The bricolage was not.

<sup>170</sup>. Westman, “Astronomer’s Role in the Sixteenth Century”; and Biagioli, “Social Status of Italian Mathematicians.”