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Author(s): Paula Findlen

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# Science as a Career in Enlightenment Italy

## The Strategies of Laura Bassi

*By Paula Findlen\**

When Man wears dresses  
And waits to fall in love  
Then Woman should take a degree.<sup>1</sup>

IN 1732 LAURA BASSI (1711–1778) became the second woman to receive a university degree and the first to be offered an official teaching position at any university in Europe. While many other women were known for their erudition, none received the institutional legitimation accorded Bassi, a graduate of and lecturer at the University of Bologna and a member of the Academy of the Institute for Sciences (Istituto delle Scienze), where she held the chair in experimental physics from 1776 until her death in 1778. In Germany she was held up as a model to encourage other learned women to receive formal recognition for their studies. In France she earned the praise of contributors to the article on “Woman” that appeared in the *Encyclopédie*; the *Journal des Dames* devoted an article to her accomplishments in March 1775. Bassi left behind little of her scientific work, but her correspondence amply testifies to her accomplishments in and centrality to the learned world. She evoked the admiration of Voltaire and Francesco Algarotti, corresponded with natural philosophers such as Roger Boscovich, Charles Bonnet, Jean Antoine Nollet, Giambattista Beccaria, Paolo Frisi, and Alessandro Volta, and numbered her cousin Lazzaro Spallanzani among her pupils. As Voltaire wrote to her in 1744, “There is no

\* Department of History, University of California, Davis, California 95611.

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<sup>1</sup> In Giancarlo Roversi, “Conquistavano il sapere ma per gli uomini erano sempre . . . le dottoresse ignoranti: Un divertente esempio di polemica antifemminista nella Bologna del ’700,” *Donne di Garbo*, 1984, 2:27–29, on p. 29. The poems were originally written in 1728, but published in 1732.

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Laura Bassi as a Petrarchan muse, 1732. From *Biblioteca Comunale dell'Archiginnasio, Bologna, Gabinetto Disegni e Stampe, Collezione dei ritratti*, A/5, cart. 30, n. 3.

Bassi in London, and I would be much happier to be added to your Academy of Bologna than to that of the English, even though it has produced a Newton."<sup>2</sup>

Bassi is one of the most interesting women natural philosophers of the early modern period.<sup>3</sup> During her long tenure as a professor at the University of Bologna and the most prominent female member of Italy's leading scientific society, she played a central role in the introduction of new forms of learning into the university science curriculum and in the constitution of a network of experimenters that connected Italy to the scientific culture of France and England. Other women natural philosophers published more than she did—for example, Margaret Cavendish, Maria Sybilla Merian, and Voltaire's celebrated companion, Émilie du Châtelet—but Bassi was best at inserting herself within the academic world of science. This essay explores the conditions that made her success possible. While considering the limitations that the social and institutional framework of science placed upon Bassi as a female practitioner in light of the cultural expectations of learned women in Enlightenment Italy, I also wish to indicate how Bassi used the patronage system and her unique role within it as both patron and emblem of the new science to carve a niche for herself in the scientific community of the eighteenth century.

Bassi's activities began in the period that ushered in early discussions about Newton, in the form of poems about the *Opticks* and cautious explorations of the *Principia*; by the time she died the general principles of Newtonianism had become a basis for explorations of all facets of the natural world. When Bassi first became associated with the University of Bologna, Newtonianism had only just begun to enter Italian academic discourse. Bassi studied primarily Aristotelian and Cartesian philosophy prior to receiving her degree, and she did not explore Newton's thought until the mid 1730s, under the tutelage of the mathematician Gabriele Manfredi. She became one of the first scholars in Italy to teach Newtonian natural philosophy, beginning with her lectures on the less controversial *Opticks* in the late 1730s and continuing with the course in experimental physics that she conducted in her home and ultimately at the Institute. In 1749 she presented a dissertation on the problem of gravity and in 1763 one on refrangibility before her colleagues at the Institute; in 1757 she published a paper on hydraulics in the *Commentaries of the Bolognese Institute and Academy for Sciences and Arts* that worked out certain theorems posed by Newton. From the 1760s onward, in collaboration with her husband Giuseppe Veratti, she made Bologna a center for experimental research in electricity, attracting the interest of well-known scholars of this subject such as Abbé Nollet.<sup>4</sup> Right until

<sup>2</sup> Quoted in Ernesto Masi, "Laura Bassi ed il Voltaire," in *Studi e ritratti* (Bologna: Zanichelli, 1881), p. 167 (here and elsewhere, translations are mine unless otherwise indicated). On praise of Bassi in contemporary publications see Londa Schiebinger, *The Mind Has No Sex? Women in the Origins of Modern Science* (Cambridge, Mass.: Harvard Univ. Press, 1990), p. 252; Boucher d'Argis, "Femme" (*Jurisp.*), *Encyclopédie ou dictionnaire raisonné des sciences, des arts et du métiers* (Paris, 1751), Vol. 6, p. 475; and Nina Gelbart, *Feminine and Opposition Journalism in Old Regime France: Le Journal des Dames* (Berkeley/Los Angeles: Univ. California Press, 1987), p. 187.

<sup>3</sup> For a more detailed biographical treatment see Elio Melli, "Laura Bassi Veratti: Ridiscussioni e nuovi spunti," in *Alma mater studiorum: La presenza femminile dal XVIII al XX secolo* (Bologna: CLUEB, 1988), pp. 71–79; and Alberto Elena, "'In lode della filosofessa di Bologna': An Introduction to Laura Bassi," *Isis*, 1991, 82:510–518. For contemporary accounts see, in particular, Biblioteca Comunale dell'Archiginnasio, Bologna (BCAB), *Mss. Bassi, Laura*, Box I, fasc. 1 (*Notizie riguardanti Laura Bassi*); and Giovanni Fantuzzi, *Elogio della Dottoressa Laura Maria Caterina Bassi Veratti scritto da Giovanni Fantuzzi: Aggiungesi un'orazione del Dott. Matteo Bazzani* (Bologna, 1778).

<sup>4</sup> Unfortunately, the standard study of electricity mentions the work of Bassi and Veratti only in passing: John L. Heilbron, *Electricity in the Seventeenth and Eighteenth Centuries: A Study of Early Modern*

the end of her career, she made the dissemination of Newtonian ideas one of her principal goals. As late as 1774 she lectured on the work of Stephen Hales, well known for his applications of Newtonian ideas to explorations of fluids in works such as his *Vegetable Staticks* (1727).

Despite Bassi's importance to the scientific culture of Enlightenment Italy, we know very little about her intellectual activities because so few of her dissertations and lectures have survived. In addition to the forty-nine theses printed for her doctoral defense and various poems, Bassi published only four works in her lifetime: *De acqua corpore naturali elemento aliorum corporum parte universi* (1732), *De aeris compressione* (1745), *De problemate quodam hydrometrico* (1757), and *De problemate quodam mechanico* (1757). Another was published posthumously: *De immixto fluidis aere* (1792). These represent only a fraction of the dissertations that she prepared and defended annually at the Institute academy. And, as Alberto Elena observes, they tell us very little about Bassi's experimental and pedagogical activities.<sup>5</sup> Unlike Émilie du Châtelet, Bassi did not derive her fame from her publications. In addition to the normal obstacles that faced women writers, she had to divide her time between teaching, experimenting, and raising a family of eight children (five of whom survived to adulthood).<sup>6</sup> Equally important, Bassi did not need to publish to stake her claim within the community of natural philosophers. Instead, the unique opportunities that early modern Italian academic culture afforded Bassi made it possible for her to achieve recognition for her work in physics and mathematics through her actions rather than her pen. Her correspondence and contemporary reports of her activities allow us to follow her career as a natural philosopher in Enlightenment Italy.

By the early eighteenth century science increasingly was a legitimate pursuit for exceptional women of unquestionable virtue. Women had become an audience for philosophical speculations, and their role as patrons and consumers of natural philosophy was increasingly acknowledged by contemporaries. The popularity of scientific activities in the Baroque Italian courts gave noblewomen the opportunity to observe and moderate the culture of experimentation and debate. In this context, women such as the grand duchess of Tuscany, Christina of Lorraine, and Queen Christina of Sweden emerged as patrons of science.<sup>7</sup> The visibility of female patrons at court and the expansion of roles for women in the literary, artistic, and scientific academies of Italy set the background for the increased participation of socially prominent and intellectually gifted women in natural philosophy. Equally important were the possibilities that Cartesian philosophy offered. Descartes's famous dedi-

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*Physics* (Berkeley: Univ. California Press, 1979), p. 354. For a complete list of Bassi's Institute lectures see Melli, "Laura Bassi Veratti," p. 79, n. 40. On Newtonianism in Italy see Paolo Casini, *Newton e la coscienza europea* (Bologna: Mulino, 1983), pp. 173–227; and Vincenzo Ferrone, *Scienze, natura, religione: Mondo newtoniano e cultura italiana nel primo Settecento* (Naples: Jovene, 1982).

<sup>5</sup> Elena, "Introduction to Laura Bassi" (cit. n. 3), p. 515. With the exception of the 1732 lecture, all of Bassi's publications appeared in *De Bononiensi Scientiarum et Artium Instituto atque Accademia Commentarii*. The citations are, respectively: 1745, 2(1):347–353; 1757, 4:61–73; 1757, 4:74–79; and 1792, 7:44–47.

<sup>6</sup> Beate Ceranski is completing a thesis at the University of Hamburg that deals with Bassi and Veratti's marriage in greater detail.

<sup>7</sup> Galileo Galilei, *Letter to the Grand Duchess Christina* (1615), in *Discoveries and Opinions of Galileo*, ed. and trans. Stillman Drake (New York: Anchor, 1957), pp. 145–216; and Susanna Åkerman, *Queen Christina of Sweden and Her Circle: The Transformation of a Seventeenth-Century Philosophical Libertine* (Leiden: Brill, 1991).

cation of his *Principles of Philosophy* (1644) to Elizabeth of Bohemia was seen by a number of scholars, male and female, as clear evidence that women were capable of philosophizing. Taking Descartes's praise of Elizabeth of Bohemia literally, Giuseppa-Eleonora Barbapiccola translated the work into Italian in 1722 in order "to make it accessible to many others, particularly women, who, as the same René says in one of his letters, are more apt at philosophy than men."<sup>8</sup> Bassi, in her studies of Cartesian philosophy in preparation for her thesis defense, may even have read Barbapiccola's translation. Certainly her family and mentors acted in accordance with these principles when they chose to make natural philosophy an important part of her education. Learned women had long been known for their skill in ancient languages and, in a city such as Bologna, law. Mastery of natural philosophy, particularly the tenets of the new scientific learning, added a novel dimension to this topos.

During the same period, Italian intellectuals explored the desirability of women's education. Most famously, the Accademia de' Ricovrati, known for its admission of women, conducted a series of debates in 1723 about whether "women should be allowed to study Sciences and the Fine Arts" that expressed well the range of opinions of this issue.<sup>9</sup> While many natural philosophers continued to oppose the entry of women into academic discourse, others, such as the president of the Accademia de' Ricovrati, the anatomist Antonio Vallisneri, encouraged their participation. Thus the Academy of the Institute for Sciences had important precedents to draw upon when it chose to add several women to its ranks, first among them Bassi. While claiming to imitate the new scientific societies such as the Royal Society, the Paris Academy of Sciences, and the Accademia del Cimento, none of which included women as members, the Institute academy nonetheless acknowledged its debt to the flourishing tradition of Italian academies that made the presence of women in their assemblies a necessary part of their composition.

The presence of women within academic institutions in Italy stood in marked contrast to the situation elsewhere. In countries like France women's participation occurred primarily in the salons. Excluded from the universities, women were allowed no role in organizations such as the Paris Academy of Sciences. As François Poulain de la Barre wrote in 1673, "They [men] founded Academies to which women were not invited; and in this way [women] were excluded from learning as they were from everything else." In contrast, the Italian academies welcomed French women of learning, capitalizing on the dearth of possibilities within French academic culture. Upon hearing of Émilie du Châtelet's admission to the Institute academy in 1746, one philosophe lamented:

When Bologna proudly displays, in Italy,  
Its register adorned with the fair name of Émilie

<sup>8</sup> "La traduttrice a' lettori," *I principi della filosofia di Renato Des-cartes tradotti . . . da Giuseppa-Eleonora Barbapiccola tra gli Arcadi Mirista* (Turin, 1722), n.p. On Cartesian philosophy and the role and image of women see Michel Delon, "Cartésianisme(s) et féminisme(s)," *Europe*, 1978, 56:73–86; Erica Harth, *Cartesian Women: Versions and Subversions of Rational Discourse in the Old Regime* (Ithaca, N.Y.: Cornell Univ. Press, 1992); and Schiebinger, *The Mind Has No Sex?* (cit. n. 2), pp. 23, 171–172, 175–178.

<sup>9</sup> *Discorsi accademici di vari autori viventi intorno agli studi delle donne; la maggior parte recitati nell'Accademia de' Ricovrati di Padova* (Padua, 1729). For the broader context see Luciano Guerri, *La discussione sulla donna nel Settecento* (Turin: Tirrenia, 1987).

Why is the fair sex, so greatly loved by us,  
Excluded, in France, from the Academy?<sup>10</sup>

While other regions discarded the Renaissance model of the academy as a place in which learned men and women of high social standing could interact, Italian practice enhanced this image. Rather than creating a salon culture that served to formalize the separation of the world of the academies from the society of learned women, scholars in numerous Italian cities formed academies that linked the university, the salon, and the leisure activities of the urban patriciate. In Bologna, Bassi soon became the centerpiece of such a network. Her presence strengthened preexisting ties between different sectors of the political and cultural elite and contributed to the enhancement of the city's position within the Republic of Letters.

While the academies and salons provided a setting in which men and women intermingled, enacting versions of the conversations fictionalized in works such as Bernard Le Bovier de Fontenelle's *Conversations on the Plurality of Worlds* (1686) and Algarotti's *Newtonianism for Ladies* (1737), few women had access to the universities in any capacity. Despite the fact that the University of Bologna celebrated a handful of women who had either attended or given lectures in the Studium during the Middle Ages, no woman in any part of Europe had been offered a degree before 1678 or an official teaching position before 1732. Most universities implicitly excluded women from any form of participation and would continue to do so until the late nineteenth and twentieth centuries. Women's learning was represented as a separate enterprise from the education of men. In the early seventeenth century, when the theologian Gisbert Voet allowed Anna Maria van Schurman to attend his lectures at the University of Utrecht, he maintained the tradition of having her listen behind a curtain in order to separate her from the male scholars.<sup>11</sup> Bassi's integration into the university culture of Bologna upon the receipt of her degree marked a departure from these practices. Benefiting from earlier traditions, which permitted women occasional access to the classroom, Bassi nonetheless was distinguished by the permanency of her position and by the fact that she performed many of the same functions as her male colleagues, as a salaried professor, lecturer, and experimenter.

The attention showered upon Bassi was the culmination of several abortive attempts to install a woman within the Italian university system. In 1678 over twenty thousand spectators crowded into Padua to see the Venetian noblewoman Elena Cornaro Piscopia receive a degree in philosophy. Immediately afterward, the rectors of the University of Padua agreed to admit no more women; when Piscopia died in 1684, she was celebrated as the first and, for the time being, the last female graduate of that university. By the 1720s the leading citizens of Bologna had begun to con-

<sup>10</sup> François Poulain de la Barre, *De l'égalité des deux sexes* (Paris, 1673), p. 28, quoted in Harth, *Cartesian Women* (cit. n. 8), p. 135; and P.-R. de Cideville, quoted in Esther Ehrman, *Mme. du Châtelet: Scientist, Philosopher, and Feminist of the Enlightenment* (Leamington Spa: Berg, 1986), p. 39. On salon culture see Carolyn Lougee, *Le Paradis des Femmes: Women, Salons, and Social Stratification in Seventeenth-Century France* (Princeton, N.J.: Princeton Univ. Press, 1976); Dena Goodman, "Enlightenment Salons: The Convergence of Female and Philosophic Ambitions," *Eighteenth-Century Studies*, 1989, 22:329–350; and Dorinda Outram, "Before Objectivity," in *Uneasy Careers and Intimate Lives*, ed. Pnina Abir-Am and Dorinda Outram (New Brunswick, N.J.: Rutgers Univ. Press, 1987), pp. 22–25.

<sup>11</sup> Joyce L. Irwin, "Anna Maria van Schurman: The Star of Utrecht," in *Female Scholars: A Tradition of Learned Women before 1800*, ed. J. R. Brink (Montreal: Eden, 1980), pp. 86–100; and Una Birch, *Anna van Schurman: Artist, Scholar, Saint* (London: Longmans, Green, 1909).

ceive of the idea of having their own woman graduate. The city abounded with learned women such as Teresa and Maddelena Manfredi, sisters of Eustachio and Gabriele and their assistants in matters astronomical, or the *bella cartesiana*, Laura Bentivoglio Davia, who so disparaged “the noisy conferral of the doctorate” on Bassi.<sup>12</sup> However, the first attempt occurred in the domain of law rather than natural philosophy. In 1722, ten years before Bassi embarked on her career as a public intellectual figure, the Bolognese noblewoman Maria Vittoria Delfini Dosi defended several legal theses at the Spanish College. While subsequent attempts on the part of her father to convince the University of Bologna to grant her a degree in jurisprudence failed, Delfini Dosi’s public display of learning reopened the debate about the place of women in academic culture in Bologna. By the 1750s two women had received degrees—Bassi and Cristina Roccati—and three—Bassi, the mathematician Maria Gaetana Agnesi, and the anatomist and wax modelist Anna Morandi Manzolini—had been offered teaching positions. Bologna, as one critic complained, now had “a platoon of women teachers.”<sup>13</sup>

Despite this evaluation, Bassi was the only woman in the eighteenth century whose circumstances allowed her the opportunity to engage fully in the activities that her male counterparts took for granted. Situated in a climate in which the idea of a “career” as an experimental philosopher was only gradually beginning to emerge, she took advantage of the ambiguous parameters of the scientific community and of the veneration accorded learned women to extend the range of her responsibilities.<sup>14</sup> In less than a century, the patronage that women offered to the sciences and their growing presence as spectators and members of various learned academies had opened the way to their participation. And Italy, more than any other region in Enlightenment Europe, offered learned women diverse circumstances in which to exercise and display their erudition.

### BASSI TAKES HER DEGREE

When Laura Bassi accepted the invitation to defend forty-nine theses in front of the notables of Bologna on 17 April 1732, and the subsequent offer of a position as a university lecturer, she entered a complex social world. The scientific culture of early modern Europe was constituted within a dense network of patrons, brokers, and clients whose shifting relationships forged the boundaries of the learned commu-

<sup>12</sup> Laura Bentivoglio Davia to Giovanni Bianchi, 14 June 1732, Bologna, in Gian Ludovico Masetti Zannini, “Laura Bassi (1711–1778): Testimonianze e carteggi inediti,” *Strenna Storica Bolognese*, 1979, 29:219–241, on p. 222. On the Manfredi sisters see Ilaria Magnani Campanacci, “La cultura extra-academica: Le Manfredi e le Zanotti,” in *Alma mater studiorum* (cit. n. 3), pp. 39–67.

<sup>13</sup> Bienvenuto Robbio, *Disgrazia di Donna Urania ovvero degli studi femminili* (Florence, 1798), p. 122. On Piscopia see Francesco Ludovico Maschietto, *Elena Lucrezia Cornaro Piscopia (1646–1684) prima donna laureata nel mondo* (Padua: Antenore, 1978); on Delfini Dosi see Emilio Oriolo, “Una cultrice di diritto a Bologna nel secolo XVIII,” *L’Archiginnasio*, 1911, 6:25–31; on Agnesi see Giovanna Tilche, *Maria Gaetana Agnesi: La scienziata santa del ’700* (Milan: Rizzoli, 1984); and Carla Vettori Sandor, “L’opera scientifica ed umanitaria di Maria Gaetana Agnesi,” in *Alma mater studiorum*, pp. 105–118; on Morandi Manzolini see Vittoria Ottani Gabriella Giuliani-Piccari, “L’opera di Anna Morandi Manzolini nella ceroplastica anatomica bolognese,” *ibid.*, pp. 81–103; on Roccati see Paola Savaris, “Cristina Roccati: Una rodigina del ’700 tra scienza e poesia” (thesis, Facoltà di Magistero, Univ. degli Studi di Ferrara, 1990–1991) (I would like to thank Clelia Pighetti—an advisor, with Marco Mondadori—for bringing this work to my attention).

<sup>14</sup> See Brendan Dooley, “Science Teaching as a Career at Padua in the Early Eighteenth Century: The Case of Giovanni Poleni,” *History of Universities*, 1984, 4:115–151.



nity.<sup>15</sup> Aspiring natural philosophers could no more make their way in the world without patrons than they could lay claim to the title of “philosopher” without having read Aristotle. Social connections in conjunction with learning made acceptance into the scientific community possible; they mediated the awarding of university positions and promotions and paved one’s entry into the courts, salons, and academies, where knowledge was put on display in front of a largely patrician audience.

Within this system, women were perceived primarily as *facilitators*. Like Baldassar Castiglione’s ideal female courtiers, their presence provided a necessary impetus to conversation, but they spoke rarely, if at all. While early modern culture recognized, indeed encouraged, female patrons of science, it accommodated women who sought rather than dispensed patronage less easily. Bassi was precisely this sort of individual. Genuinely committed to teaching and research, she attempted to build a career out of her position by using the same patrons and institutions as her male counterparts. While always acknowledging her special status, she nonetheless refused to accept the limitations placed upon her. Like Madame du Châtelet, she continued to profess astonishment at the fact that while women were accepted as rulers in several countries, “there is none in which we are elevated to think,” and she devoted her life to making Bologna an environment in which at least one woman contradicted this general rule.<sup>16</sup>

The scientific climate of Bologna in 1732 was particularly conducive to public and institutional recognition of a learned woman, especially one versed in the latest mathematical and experimental philosophies. The final decades of the seventeenth century had witnessed a major decline in the international reputation of the University of Bologna, and even the efforts of committed reformers like Anton Felice Marsili to revitalize the curriculum had yielded disappointingly few results and little acknowledgment from the outside world. The founding of the Institute for Sciences by Luigi Ferdinando Marsili in 1714 institutionalized these reforms, establishing a teaching and research facility specifically designed to supplement the traditional curriculum, particularly in the experimental sciences.<sup>17</sup> Where late seventeenth-century academies had failed, the Institute succeeded, bringing Bologna again to the attention of the learned world through its importation of the best ideas of the new philosophy to Italy. In 1728 the young Algarotti first replicated Newton’s optical experiments be-

<sup>15</sup> Scientific patronage has been the subject of a growing body of secondary literature. I will indicate only some of the most relevant studies: Mario Biagioli, “Galileo’s System of Patronage,” *History of Science*, 1990, 28:1–62; David S. Lux, *Patronage and Royal Science in Seventeenth-Century France: The Académie de Physique in Caen* (Ithaca, N.Y.: Cornell Univ. Press, 1989); Bruce Moran, ed., *Patronage and Institutions: Science, Technology, and Medicine at the European Courts, 1500–1750* (Woodbridge, Suffolk: Boydell, 1991); Lisa T. Sarasohn, “Nicolas-Claude Fabri de Peiresc and the Patronage of the New Science in the Seventeenth Century,” *Isis*, 1993, 84:70–90; Alice Stroup, *A Company of Scientists: Botany, Patronage, and Community at the Seventeenth-Century Parisian Royal Academy of Sciences* (Berkeley/Los Angeles: Univ. California Press, 1990); and Richard Westfall, “Scientific Patronage: Galileo and the Telescope,” *Isis*, 1985, 76:11–30. For a later period see also Dorinda Outram, “Before Objectivity” (cit. n. 10), pp. 19–30; and Outram, *Georges Cuvier: Vocation, Science, and Authority in Post-Revolutionary France* (Manchester: Manchester Univ. Press, 1984).

<sup>16</sup> Baldassar Castiglione, *The Book of the Courtier*, trans. Charles S. Singleton (New York: Anchor, 1959), esp. pp. 15–26, 201–282; and Émilie du Châtelet, preface to her translation of Mandeville’s *Fable of the Bees*, in Elisabeth Badinter, *Émilie, Émilie: L’ambition féminine au XVIIIème siècle* (Paris: Flammarion, 1983), p. 448.

<sup>17</sup> For a comparative perspective see Dooley, “Science Teaching as a Career at Padua” (cit. n. 14). On the history of the Istituto and its predecessors see Marta Cavazza’s excellent *Settecento inquieto: Alle origini dell’Istituto delle Scienze di Bologna* (Bologna: Mulino, 1990); see also *I materiali dell’Istituto delle Scienze* (Bologna: CLUEB, 1979); and Richard Rosen, “The Academy of Sciences of the Institute of Bologna, 1690–1804” (Ph.D. diss., Case Western Reserve Univ., 1971).

fore the Institute members, the beginning of his efforts to introduce Newtonianism into Italy. Best known for his *Newtonianism for Ladies*, completed at Cirey in the company of Voltaire and Châtelet, Algarotti was an active participant in the diffusion of Newtonianism in Italy. While we most often think of this work in relation to Châtelet's translation of Newton's *Principia*, we should not neglect Algarotti's activities preceding the trip to France. Algarotti included a portrait of Châtelet in the engraved frontispiece, but he made several references to Bassi in the text. Completed only four years after Bassi had defended several Newtonian theses in public, and five years after Algarotti had witnessed her degree ceremonies (about which he wrote several poems), *Newtonianism for Ladies* was as much a tribute to Bassi and the Institute as it was to the activities of the French philosophes.<sup>18</sup>

While the Institute commenced with a great flourish, the death of its principal patron Marsili in 1730 and the lack of tangible results had diminished its public splendor. This intellectual torpidity was further exacerbated by the flagging fortunes of the Bolognese patriciate. By the 1720s the ranks of the major families—the Aldrovandi, Bentivoglio, Cospi, Paleotti, and Ranuzzi, to list a few—that had dominated the political culture of the city had thinned greatly.<sup>19</sup> Their replacement by members of the minor nobility only furthered the perception that Bologna was no longer the splendid center it once had been. Thus the university, the academy, and the city needed Bassi as much as she needed them. Publicizing Bassi's accomplishments, and enhancing them beyond anything achieved by earlier learned women, would add luster to the reputation of Bologna.

The daughter of a lawyer, Bassi received her early tutelage at home from Gaetano Tacconi, the family physician, a professor at the university, and a member of the Institute academy. As Bassi's accomplishments grew, pressure for her to appear in public mounted. Bassi was reputed to be a "monster in philosophy"; her fluency in Latin as well as Cartesian and Newtonian philosophy was noted by many contemporaries, among them the poet Giampietro Zanotti, who proclaimed her Latin to be better than his Bolognese. For Bassi and most educated women in Italy, science was not an alternative to classical learning, as it often was advertised in France and England, but its supplement; this provided the necessary element of continuity between Renaissance and Enlightenment views of learned women.<sup>20</sup> In the early months of 1732 Tacconi finally allowed a select group of professors and gentlemen, among them the secretary of the Institute, Francesco Maria Zanotti, and the new archbishop of Bologna, Prospero Lambertini, to hear Bassi dispute privately on various subjects.

<sup>18</sup> On Algarotti see Franco Arato, *Il secolo delle cose: Scienza e storia in Francesco Algarotti* (Genoa: Marietti, 1991); and Ida Frances Treat, *Un cosmopolite italien du XVIII<sup>e</sup> siècle: Francesco Algarotti* (Trévoux: Jules Jeannin, 1913). See also Mauro De Zan, "Voltaire e Madame du Châtelet: Membri e corrispondenti dell'Accademia delle Scienze di Bologna," *Studi e Memorie dell'Istituto per la Storia dell'Università di Bologna*, 1987, 6:141–158, esp. p. 142. On Bassi and Algarotti see Marta Cavazza, "L'aurata luce settemplice": Algarotti, Laura Bassi e Newton," in *Settecento inquieto*, pp. 237–256; and the introduction to Francesco Algarotti, *Dialoghi sopra l'ottica newtoniana*, ed. Ettore Bonora (1969; Turin: Einaudi, 1977).

<sup>19</sup> Alfeo Giacomelli, "La dinamica della nobiltà bolognese nel XVIII secolo," in *Famiglie senatorie e istituzioni cittadine a Bologna nel Settecento* (Bologna: Istituto per la Storia di Bologna, 1980), pp. 55–112, esp. pp. 76–80.

<sup>20</sup> BCAB, Ms. *Hercolani*, fasc. 382, letters 32, 34, in Masi, "Laura Bassi ed il Voltaire" (cit. n. 2), p. 162. For a contrasting view on the role of ancient learning in England and France see Patricia Philips, *The Scientific Lady: A Social History of Women's Scientific Interests, 1520–1918* (London: Weidenfeld & Nicolson, 1990), pp. ix, 27–28; and Harth, *Cartesian Women* (cit. n. 8), p. 25.

As news of her remarkable erudition spread, she “found herself constrained to make almost a continuous spectacle of herself in the City.” Cardinal Lambertini soon persuaded her to appear in public, and Tacconi and Zanotti proposed her election to the Institute academy, to which she was aggregated on 20 March 1732. Less than a month later, on 17 April, she engaged in a public dispute with five university professors, among them the physicist-chemist Jacopo Bartolomeo Beccari and Gabriele Manfredi.<sup>21</sup>

From the moment that Bassi agreed to participate in the public debates, her social position shifted. No longer simply a woman whose learning made her an object of curiosity and a participant in the civil discourses of the urban patriciate, she had become the symbol of the scientific and cultural regeneration of the city. The conferral of a degree on 12 May and the Senate’s decision to award her a university chair on 29 October 1732 formalized the terms of the new relationship. Detailed reports of the defense, the degree ceremony, and her first lecture as a university professor illuminate the emergence of Bassi as a public figure. All these events were attended not only by the university faculty and students, but also by the principal political and religious figures of the city—the papal legate and vice-legate, the archbishop of Bologna, the gonfaloniere, the elders (*Anziani*), senators, and magistrates. Additionally, “all the Ladies of Bologna and all the Nobility,” along with foreigners and curious onlookers, filled the rooms to hear her speak.<sup>22</sup> The composition of the audience testified to the close ties between the academic, civic, and patrician life of the city and underscored Bassi’s importance to all three domains. In her passage from private citizen to public ornament, Bassi had become an emblem of Bologna’s efforts to regain its foothold in the learned world.

Contemporary descriptions and illustrations give us a fairly precise idea of the performative nature of these events. The defense and the degree ceremony occurred not in the Archiginnasio, home to the Studium, but in the Palazzo Pubblico, seat of the local and papal government.<sup>23</sup> There, accompanied for decorum’s sake by Countess Maria Bergonzi Ranuzzi and Marchesa Elisabetta Ercolani Ratta, two prominent noblewomen, Bassi engaged in her first public disputes. Arriving at the Palazzo Pubblico, Bassi went first to the quarters of the current gonfaloniere, Filippo Aldrovandi, where she was joined by the archbishop, the legate Girolamo Grimaldi, Cardinal Melchiorre de Polignac—a dignitary visiting Bologna on his way from Rome to Paris—and other “eminences.” From these rooms she made her way to the Sala d’Ercole, where the degree was awarded by the chancellor of the Studium, Alessandro Formagliari, and the prior of the college, Matteo Bazzani. Both ceremonies ended with the retreat of the young “philosophess” (*filosofessa*) to the gonfaloniere’s quarters within the Palazzo Pubblico, where she was privately feted, accompanied by “all the Ladies.” In between her arrival and departure, Bassi traversed the space

<sup>21</sup> BCAB, *Mss. Bassi, Laura*, Box I, fasc. 1, cc. 1v–2r; and G. B. Comelli, “Laura Bassi e il suo primo trionfo,” *Stud. Mem. Stor. Univ. Bologna*, 1912, Ser. 1, 3:197–256, on p. 205.

<sup>22</sup> Biblioteca Universitaria, Bologna (BUB), Codex 212 (116), no. 23, c. 94r. I am aware of three contemporary reports of the degree ceremonies: BUB, Codex 212 (116), no. 23, cc. 94–95; BCAB, *Gozzadini* 140, cc. 12–13; and Elisabetta Ratta to Francesco Algarotti, 19 Apr. 1732, in Comelli, “Laura Bassi e il suo primo trionfo,” p. 213. My discussion of the ceremonies draws on these as well as Fantuzzi, *Elogio* (cit. n. 3), pp. 6–10. On Bassi’s importance to the city see Cavazza, *Settecento inquieto* (cit. n. 17), pp. 249–256, *passim*.

<sup>23</sup> On the structure of the Bolognese government see Paolo Colliva, “Bologna dal XIV al XVIII secolo: ‘Governo misto’ o signoria senatoria?” in *Storia dell’Emilia Romagna*, ed. A. Berselli (Imola: Edizioni Santerno, 1977), Vol. 2, pp. 13–34.

separating her podium from the canopied throne (*baldacchino*) on which Archbishop Lambertini and Cardinal de Polignac were seated in order to pay her respects and receive their compliments.<sup>24</sup>

In an oration written especially for the degree ceremony, Matteo Bazzani praised Bassi for displaying her talents “in the most prosperous civic theater.” Drawing attention to the long heritage of learned women associated with the University of Bologna, he presented Bassi as the culmination of a tradition that stretched back to the early days of the university in the later Middle Ages. As Bassi’s colleague at the Institute, Beccari, was later to write to Maria Gaetana Agnesi when she was offered an honorary position at the university in 1750, “From the most ancient times Bologna has had people of your sex [lecture] from the public chairs.”<sup>25</sup> Thus Bassi was invited to enhance and reconstitute this tradition in 1732. Her skills in ancient languages as well as modern sciences made her eminently qualified to fulfill her role.

Like Bazzani, Bassi was extremely conscious of her audience and its expectations. In the opening of her thesis defense she acknowledged frequently the presence of all the principal parties who had made the dispute possible. More pointedly, in the course of her first public lecture after the conferral of a university chair, on 18 December 1732, Bassi made particular reference to the governing body as patron of her efforts: “the magnanimity of the Senate raised me, beyond what I asked for and dreamed of, to the highest dignity of speaking in public,” she proclaimed. The active role of the Senate in facilitating Bassi’s position was confirmed by her biographer Giovanni Fantuzzi, who described it as “a spectator up until this [moment],” intervening with the offer of a position to prevent her from lapsing into “leisure and mediocrity” only after witnessing the success of her defense.<sup>26</sup> While her tutor Tacconi and his circle of friends, among them the influential Lambertini and Zanotti, had first brought this remarkable woman to the attention of Bologna, the Senate, as the body that governed all university appointments, gave her an official position.

### MISPLACED EXPECTATIONS?

While offering Bassi a permanent role in the academic culture of the city, the Senate initially defined her duties as a lecturer restrictively. As one 1778 eulogy to Bassi described it, they “wished to inscribe her in the roll of Professors of Philosophy without the burden of exercising this commitment.” During the deliberations about her position, beginning on 25 August and concluding on 29 October 1732, the Senate voted to award Bassi an annual stipend of 100 *scudi* “on the condition, however, that she should not read in the public schools except on those occasions when her Superiors commanded her, because of [her] Sex.” The dates for these lectures were to be determined jointly by the papal legate and the gonfaloniere. Less than a year later, the governing board of the university (*Assunti di Studio*) recommended to the

<sup>24</sup> Bassi’s thesis defense, *laurea*, and first lesson, along with her appearance at the 1734 carnival anatomy, are illustrated as part of a famous series of pictures detailing the civic life of the city: Archivio di Stato, Bologna (ASB), *Insignia degli Anziani*, Vol. 13, cc. 94, 95, 98, and 105, respectively.

<sup>25</sup> Matteo Bazzani, *Oratio ad egregiam virginem D. Lauram Mariam Catharinam Bassi*, in Fantuzzi, *Elogio* (cit. n. 3), p. 32; and Jacopo Bartolomeo Beccari to Maria Gaetana Agnesi, 8 July 1750, Bologna, Biblioteca Ambrosiana, Milan, ms. 0.201 sup., c. 12.

<sup>26</sup> Laura Bassi, *Praefectio primae conclusionis in aula palatii magistratus*, in Comelli, “Laura Bassi e il suo primo trionfo” (cit. n. 21), pp. 224–225; Bassi, *Praelectio*, in Luisa Caterina Cavazzuti, “Nuovi testi sull’attività scientifica e filosofica di Laura Bassi” (thesis, Facoltà di Magistero, Univ. Bologna, 1964–1965), p. 75; and Fantuzzi, *Elogio*, p. 10.

city government (*Reggimento*) that Bassi give one lecture “every Trimester.”<sup>27</sup> Quite likely they imagined that she would speak at fall convocation, at the public anatomy (usually held in early February), and at the conclusion of the academic year in June. Thus the appearance of the local celebrity marked the rhythm of the academic year.

The nature of the events, both public and private, at which Bassi was invited to appear illustrates well the expectations her patrons had of her. Within days of the degree ceremony, Bassi entertained the visiting Cardinal de Polignac by disputing with four doctors from the university. On 15 June 1733 she participated in a public debate with Giuseppe Azzoguidi on “Poisons and Their Antidotes.” From 1734 until 1778 she appeared annually as one of the disputants at the famed carnival anatomy and participated in 105 public disputes formally mandated by the university. From 1746 until 1777 she presented one formal dissertation yearly at the Institute academy as part of her responsibilities as a member of its elite core, the Benedictines (*Benedettini*). Many of these coincided with “the occasion of the Public Academies,” held periodically by the Institute, to which nonmembers could come.<sup>28</sup> This pattern of activity, dictated by the institutional calendar, was occasionally punctuated by singular events, command performances at the request of patrons. For example, the arrival of a new legate in 1734 and the election of Carlo Grassi in 1745 were noteworthy enough to demand Bassi’s presence. Similarly, the awarding of a degree to Cristina Roccati in 1751 and the fortieth anniversary of the Institute in 1754 required her participation. Had Maria Gaetana Agnesi chosen to come to Bologna to accept her honorary chair in mathematics in 1750, she certainly would have engaged in a public dispute with Bassi; this was surely one of the reasons why Benedict XIV and the members of the Institute were so keen on affiliating Agnesi with the scientific institutions of Bologna. Undoubtedly they were disappointed when the opportunity to pit the two most famous women natural philosophers in Italy against each other did not come to pass.<sup>29</sup>

In addition to her participation in various ceremonies, Bassi attended important social gatherings for the nobility. “All the gentlemen of Bologna make a great display of this girl, and depict her everywhere as the miracle of our age,” wrote Giovanni Bianchi from Rimini in 1732. Friends such as the noblewoman Elisabetta Ratta had informal literary gatherings at their homes, to which Bassi was invited. Her close association with local poets like the Zanotti brothers made her sought after for her eloquence as well as her learning. Patrons like Senator Filippo Aldrovandi, gonfaloniere when Bassi received her degree, hosted well-publicized “Sunday evenings” for the Bolognese patriciate. As the *Avvisi di Bologna* reported in 1736, on one such evening in November Bassi debated both Matteo Bazzani and Francesco Maria Zannotti, alternately in Italian and Latin, in front of “all the Nobility in formal attire,”

<sup>27</sup> BCAB, B.2727, cc. 14v–15r (eulogy); and BCAB, *Gozzadini* 337, c. 89 (as reported in the *Avvisi di Bologna*, no. 45, 4 Nov. 1732). For the original deliberations see ASB, *Assunteria di Studio: Partitorum*, Vol. 49, fol. 49v, in Comelli, “Laura Bassi e il suo primo trionfo,” p. 241; and ASB, *Assunteria di Studio: Atti* (1730–1735), Vol. 22 (9 Oct. 1733).

<sup>28</sup> BUB, Codex 212 (116), no. 23, c. 95r; ASB, *Assunteria di Studio: Atti* (1730–1735), Vol. 22 (13 June 1733); and BCAB, *Mss. Bassi, Laura*, Box I, fasc. 1(i). The information about Bassi’s Institute lectures is culled from Rosen, “Academy of Sciences” (cit. n. 17), pp. 224–264; and BCAB, *Mss. Bassi, Laura*, Box I, fasc. 1(a), c. 3v. All the *Benedettini* were assigned times by drawing lots, with the exception of Bassi, who could choose when she would lecture.

<sup>29</sup> BCAB, *Gozzadini* 337, c. 105; *Mss. Bassi, Laura*, Box I, fasc. 1(i), c. 4v. The possibility of Agnesi debating Bassi is suggested in Cornelia Benazzoli, *Maria Gaetana Agnesi* (Milan: Fratelli Bocca, 1939), p. 104.

including “over 120 Ladies.” Appearing at the conclusion of the “noble Symphonies in diverse parts of the Palace,” Bassi received the “universal applause” of the Bolognese elite as well as the “many Foreign Nobles” present.<sup>30</sup> Despite Bassi’s initial reticence about appearing in public, after receiving her degree she was quickly integrated into the social circuit of the city.

Most revealing, however, was the frequency of her appearance at the carnival anatomy. The anatomy was a central feature of the public life of the university; like Bassi’s degree ceremony, it enhanced the ritual life of the city. Unlike Bassi’s degree ceremony, it was performed annually—the one dissection during the year that was open to anyone able to buy tickets. While other professors rotated in and out of the lectureships assigned to the public dissection, Bassi’s presence was essential to the success of this popular event. Lasting ten to fifteen days, the annual dissection, held before Lent, entailed an elaborate ceremonial in which the leading professors, senators, and dignitaries of the town participated. Formal invitations were sent to prominent members of the community and important foreigners.<sup>31</sup> In addition, a riotous crowd of carnival revelers filled the anatomy theater with shouts and jeers as they watched the local intellectuals try to acquit themselves on any subject deemed worthy of conversation, as well as the proposed topic of the anatomy. The fortunes of the carnival anatomy curiously paralleled Bassi’s own. Revived just when the university’s reputation had reached its nadir, the anatomy was perceived as both an “honor to the Studium” and an “attraction to foreign scholars.”<sup>32</sup> Given its significance, Bassi’s presence was imperative in the eyes of the Senate, once her position made such public performances possible.

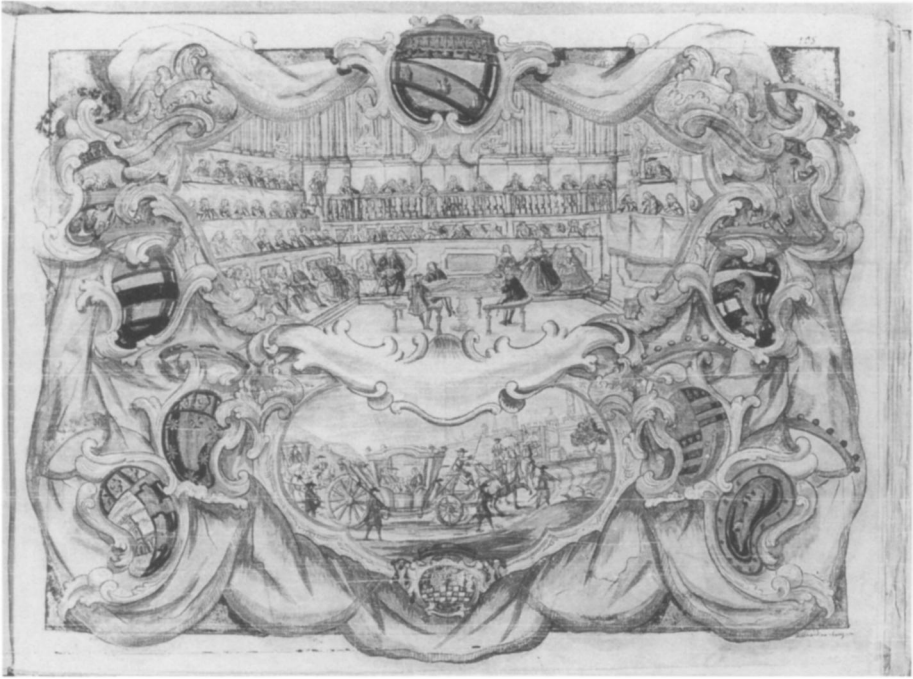
Her first appearance in this setting occurred on 23 February 1734 (see Figure 1). Domenico Gusmano Galeazzi presented a dissertation on sight, *De visu*. The new legate, Giovanni Battista Spinola, had arrived in the city shortly after New Year’s. Accompanied by the gonfaloniere and the *Anziani*, Spinola attended the first and last lectures and the one at which Bassi debated Galeazzi: “With most subtle and learned arguments and rare expositions of experiments regarding the Sense of Sight, she demonstrated a high and profound understanding of this material, rousing widespread applause from the large Audience, most especially from the most Excellent signor Cardinal Legate, who understood for the first time the great Virtue and Knowledge of the lauded *Dottoressa*.” What the official acts of the governing body of the university did not mention, however, were the “many Foreigners and a great many Maskers present.”<sup>33</sup> While the content of her disputes may have appealed chiefly to a small learned constituency able to follow the intricacies of academic Latin, among them the legate and the archbishop, her presence at the anatomy only heightened the

<sup>30</sup> Bianchi to Antonio Leprotti, 18 May 1732, Rimini, in Zannini, “Laura Bassi” (cit. n. 12), p. 230; and BCAB, *Mss. Bassi, Laura*, Box I, fasc. 1(i), c. 2v (*Avvisi di Bologna*, no. 45, 6 Nov. 1736).

<sup>31</sup> On 19 Dec. 1745 Bassi invited Canonico Pier Francesco Poggi to her “public lesson at the anatomy theater”; see Elio Melli, “Epistolario di Laura Bassi Veratti” (hereafter cited as **Melli, “Epistolario”**), in *Studi e inediti per il primo centenario dell’Istituto Magistrale Laura Bassi* (Bologna: N.p., 1960), p. 118. See also the deliberations and expenditures of the *Assunti di Studio*: ASB, *Assunteria di Studio: Atti* (1749–1755), Vol. 24 (7 Feb. and 10 Mar. 1749).

<sup>32</sup> Giovanna Ferrari, “Public Anatomy and the Carnival: The Anatomy Theater of Bologna,” *Past and Present*, 1987, 117:50–106, on pp. 76, 94. The remarks are drawn from the “Memoriale del dottor Laghi,” ASB, *Assunteria di Studio: Anatomia publica*, file 6, as reproduced by Ferrari.

<sup>33</sup> ASB, *Assunteria di Studio: Atti* (1730–1735), in G. Martinotti, “L’insegnamento dell’anatomia in Bologna prima del secolo XIX,” *Stud. Mem. Stor. Univ. Bologna*, 1911, 2:132; and BCAB, *Gozzadini* 337, c. 105.



**Figure 1.** Laura Bassi at the carnival anatomy, 1734. From *Archivio di Stato, Bologna*, *Insignia degli Anziani*, Vol. 13, c. 105.

perception of the event as the epitome of the world turned upside down. For the “infinity of Foreigners and People” who crowded into the theater on the second floor of the Archiginnasio, only in the carnival setting of the public anatomy could a woman truly shake off the weight of custom and become learned. Just as members of the audience, in the spirit of carnival, cloaked their true identities by wearing masks, Bassi too “disguised” herself with her knowledge. The organizers of the public anatomy manipulated this tradition to their advantage, linking the “virtue” of Bassi’s presence in the Studium with the “honor” of the carnival festivities.<sup>34</sup> Since this was the one time during the year when the general public could see an anatomical dissection and Europe’s only female professor, it was a rare occasion indeed.

The Senate’s decision to restrict Bassi’s public appearances to ceremonial occasions, *ratione sexu*, matched well the cultural image of Bassi developed by her admirers in the first years of her lectureship. Returning to the degree ceremony itself, we can see the crafting of an image at work. Despite reports that Bazzani “awarded her a degree according to the usual forms,” the ceremony diverged in several important ways. Bassi received her degree gratis, without any of the presents, payments, and banquets that graduates customarily gave their professors and patrons. Rather than giving gifts, as tradition dictated, she was herself the recipient of lavish presents: the silver, jewel-encrusted crown of laurels—a gift of the Countess Ranzuzzi—that replaced the traditional beret of male graduates, the medal struck for the occasion (see Figure 2), and the poems written in her honor. Bazzani, putting the

<sup>34</sup> Apropos of this imagery, see the stanza of a poem circulated in 1732 that is reproduced at the beginning of this essay.



**Figure 2.** Laura Bassi depicted as Minerva. From Giovanni Fantuzzi, *Elogio della Dottoressa Laura Maria Caterina Bassi Veratti* (Bologna, 1778). (By permission of the Biblioteca Universitaria, Bologna.)

silver laurels upon her head, compared her transfiguration to the metamorphosis of Ovid's chaste Daphne, transformed into a laurel tree to flee the unwanted attentions of her lover Phoebus.<sup>35</sup>

Other gifts, while part of the customary degree ceremony, took on added significance. Along with the crown of laurels, Bassi also received a ring and an ermine cape. Placed on her "connubial finger" by the prior Bazzani, the ring signified not simply her membership in the academic community but her virtual "marriage" to the city and the Studium. Writing to Algarotti, Elisabetta Ratta described "the most vigorous praise of our Beccari towards the young scholar, who never finished without saying: *egregie, virgo sapientissima, egregie*" during the thesis defense.<sup>36</sup> Recalling both the religious tradition of women in orders as brides of Christ and the civic tradition of virgins whose chastity cemented the foundations of republican government, Bassi, as a "most learned virgin," found herself fulfilling these ancient topoi.

<sup>35</sup> BUB, Codex 212 (116), no. 23, c. 94v (quotation); Fantuzzi, *Elogio* (cit. n. 3), p. 16; and Bianchi to Leprotti, 18 May 1732 (cit. n. 30). For the comparison to Daphne see Fantuzzi, *Elogio*, p. 36; the reference is to Ovid, *Metamorphoses*, trans. Mary M. Innes (New York: Penguin, 1955), pp. 41–44.

<sup>36</sup> Fantuzzi, *Elogio*, pp. 32, 36 (on the ring); and Ratta to Algarotti, 19 Apr. 1732 (cit. n. 22). For the context of this imagery see Stephanie H. Jed, *Chaste Thinking: The Rape of Lucretia and the Birth of Humanism* (Bloomington/Indianapolis: Indiana Univ. Press, 1989); and Edward Muir, *Civic Ritual in Renaissance Venice* (Princeton, N.J.: Princeton Univ. Press, 1981), pp. 119–134.



Given the continued strength of such bonds, even in the eighteenth century, the murmurings against Bassi's decision to marry Giovanni Giuseppe Veratti in February 1738 were quite understandable. "Thus you would blemish your glory? [*Dedisti maculam in gloria tua?*]," accused one anonymous pamphleteer.<sup>37</sup>

The association between female learning, virtue, and sanctity was still strong in the eighteenth century, though not as pervasive as it had been in the fourteenth through the seventeenth centuries. But learning and virginity did not only suggest sanctity. They also imbued a woman with the qualities of Minerva. Numerous elogies presented Piscopia as the "Venetian Minerva," and Voltaire described Châtelet in similar terms. Under the portrait commissioned by the Accademia degli Infecondi of Rome on the death of Piscopia in 1686, the inscription read, "Surely you believe the image which you see to be Minerva? [*Quam cernis pictam ne credas esse Minervam?*]." <sup>38</sup> Bassi, the "marvel of her sex and an ornament of our *Patria*," fulfilled a similar role in the eyes of her admirers. As the inscription on the obverse of the medal commemorating her degree declared: "*Soli cui fas est videsse Minervam*" (see Figure 2). Contemporaries must have associated this vision of Bassi with the frequent appearance of Minerva in the allegorical imagery of the Studium and the Institute.<sup>39</sup> Casting her light across the city, Bassi illuminated the path to wisdom, so recently obscured, permitting the citizens of Bologna once again to "see Minerva."

Described variously by contemporaries as the "new light of philosophy," the "luminous mirror of Science," and the "alumna of the Muses," Bassi became the emblem of *scientia* in all its forms. Compared to the sixteenth-century poetess Vittoria Colonna and most frequently to Petrarch's Laura, whom she surpassed by combining a learning and eloquence equal to Petrarch's with womanly grace, Bassi was the quintessential Enlightenment Muse (see Frontispiece).<sup>40</sup> With this designation came a variety of social burdens. Not only the subject of numerous poems, among them Algarotti's famous "Non la lesboa," Bassi also was expected to write poetry for important public functions. In 1737 she contributed to a volume of poems, collected by Giampietro Zanotti, for the wedding of Carlo Emanuele, King of Sardinia, and Elizabeth of Lorraine; the same year she repaid Maria Ranuzzi's gift of the silver

<sup>37</sup> Quoted in Comelli, "Laura Bassi e il suo primo trionfo" (cit. n. 21), pp. 220–221. For more on Bassi's decision to marry see Beate Ceranski, "Il carteggio tra Laura Bassi e Giovanni Bianchi 1733–1745," *Nuncius* (forthcoming).

<sup>38</sup> For a broader discussion of these issues see Margaret L. King, "'Book-lined Cells': Women and Humanism in the Early Renaissance," in *Beyond Their Sex: Learned Women of the European Past*, ed. Patricia H. Labalme (New York: New York Univ. Press, 1980), pp. 66–90; and King and Albert Rabil, eds., *Her Immaculate Hand: Selected Works by and about the Woman Humanists of Quattrocento Italy* (Binghamton, N.Y.: Center for Medieval and Early Renaissance Studies, 1983). On Châtelet as Minerva see Badinter, *Émilie, Émilie* (cit. n. 16), pp. 257, 280–281. On Piscopia see Giovan Nicolò Bandiera, *Trattato degli studi delle donne* (1740), Vol. 1, p. 339; Massimiliano Deza, *Vita di Helena Lucretia Cornara Piscopia* (Venice, 1686), p. 11; *Helena Lucretia (Quae & Scholastica) Corneliae Piscopiae Virginis Pietate, & Eruditione admirabilis; Ordini D. Benedicti Privatis voris adscriptae Opera quae quidem haberi potuerunt* (Parma, 1688), p. 163; and *Le Pompe Funebri celebrate da' Signori Accademici Infecondi di Roma per la morte dell'Illustrissima Signora Elena Cornara Piscopia* (Padua, 1686), n.p.

<sup>39</sup> BCAB, Mss. Bassi, Laura, Box II, no. 6, p. 69. The original medal is reproduced in Fantuzzi, *Elogio* (cit. n. 3), p. 2; see also Marta Cavazza, "Scienziati in Arcadia," in *La Colonia Renia: Profilo documentario e critico dell'Arcadia bolognese*, ed. Mario Saccenti (Modena: Mucchi, 1988), Vol. 2, p. 432, n. 35. For the context of this sort of imagery see Londa Schiebinger, "Feminine Icons: The Face of Early Modern Science," *Critical Inquiry*, 1988, 14:661–691.

<sup>40</sup> BCAB, B.2727, c. 11v; BCAB, Mss. Bassi, Laura, Box II, no. 8 (*Rime in lode della Signora Laura Maria Cattarina Bassi . . . prendendo la laurea dottorale in filosofia* [Bologna, 1732]); Antonio Magnani, *Elogio di Laura Bassi* (Venice, 1806), p. 11; and Roseann Runte, "Women as Muse," in *French Women and the Age of Enlightenment*, ed. Samia I. Spencer (Bloomington/Indianapolis: Indiana Univ. Press, 1984), pp. 143–154.

crown of laurels (*laurea d'argento*) by writing poems for the wedding of the countess's niece. Even as late as 1744, when Gian Lodovico Bianconi wrote to Giuseppe Veratti in gathering information on Bassi for his book of contemporary authors, he was more interested in the number of "poetic Academies" to which she had been admitted than in her scientific activities.<sup>41</sup>

While Bassi welcomed the opportunity to display her talents in a public forum, she was increasingly uncomfortable with her literary apotheosis. Letters such as the one written by the learned Francesca Manzoni in 1737—"you fly so high, where I do not dare address my thoughts," effused the Milanese poetess—must have only reinforced her desire to carve an image for herself removed from these laudations. By February 1737 she was complaining to Zanotti that she had no desire "to compose poetry ever again," and she resumed with vigor her attempts to get the Senate to expand her pedagogical duties.<sup>42</sup> By a somewhat different path than Châtelet, whose interest in mathematics was nurtured in the salon culture of Paris and through her association and correspondence with various philosophes, Bassi too had discovered natural philosophy as her vocation.

The late 1730s were, in many respects, crucial years for the formation of Bassi's career. Recently married and firmly established as an arbiter of learning in the city, Bassi, with the help of her husband, friends, and patrons, began to test the limits of her authority. In 1738, frustrated at the restrictions placed upon her teaching, she initiated a series of private lessons at home in the tradition of many university professors. Soon she found herself managing a lively scientific salon. Arriving in Bologna only a year later, Charles de Brosses described the balance of Bassi's private activities and public duties: "Indeed she wears the gown and ermine cape when she gives public lectures; this happens rarely and only on certain festival days, because it was not considered decent for a woman to show the hidden things of nature to all-comers daily. In recompense, philosophical conferences are held at her house from time to time." Initially intended for university students, the private lessons soon were attended exclusively by "nobles as well as scholars," and her fame as a teacher and orator grew.<sup>43</sup>

One year later, following the procedure used by other professors, Bassi submitted a request for a salary increase to the university; at the same time she petitioned for a reconsideration of the parameters of her duties. As the letter presented to the *Assunti di Studio* on her behalf explained: "She has sustained many disputes in the presence of Cardinals, Princes and other noteworthy subjects and continually receives Foreigners in her house with the obligation to respond to the Questions put

<sup>41</sup> *Lettere inedite alla celebre Laura Bassa scritte da illustri italiani e stranieri con biografia* (Bologna: G. Cenerelli, 1885) (hereafter cited as *Lettere inedite*), p. 166; Melli, "Epistolario," p. 65; and Gian Lodovico Bianconi to Giuseppe Veratti, 26 Nov. 1744, Dillinga, in *Lettere inedite*, p. 201. Marta Cavazza has discussed the use of poetry about Bassi as a means of introducing Newtonian subjects into Italy in *Settecento inquieto* (cit. n. 17), pp. 237–256, *passim*. For other poetry written in celebration of Bassi see Maria Elisabetta Machiavelli, *De rebus praeclaris gestis a clarissima philosopho doctore collegiata Laura Maria Catherina Bassi cive bononiensi* (17 May 1732); and, more generally, *Rime per la famosa laureaazione ed acclamatissima aggregazione al Collegio Filosofico della Illustrissima ed eccellentissima Signora Laura Maria Caterina Bassi Accademica nell'Istituto delle Scienze e Cittadina Bolognese* (Bologna, 1732).

<sup>42</sup> Francesca Manzoni to Laura Bassi, 22 May 1737, Milan, in *Lettere inedite*, p. 86; and Bassi to Giampietro Zanotti, 9 Feb. 1737, Bologna, in Melli, "Epistolario," p. 82.

<sup>43</sup> *Lettres d'Italie du Président de Brosses*, ed. Frédéric d'Agay (Paris: Mercure de France, 1986), Vol. 1, p. 268; and ASB, *Assunteria di Studio: Requisiti dei Lettori*, Box II, n. 1 (Laura Bassi, 1748).

to her and to hold literary discourses at their pleasure, often entailing formal disputes in her House on such occasions with the intervention of many Gentlemen and Scholars." This was in addition to her mathematical studies with Gabriele Manfredi and the teaching of a "Course in the Experiments of Newton regarding light and color." In two separate meetings held that December, Bassi was granted an increase of 160 *lire* and the restrictions placed upon her public teaching were substantially reduced.<sup>44</sup>

Possibly the modifications in the Senate's policy toward Bassi in 1739 were a reflection of the 1737 reform of the university that paved the way for the introduction of the experimental sciences in the curriculum. Bassi's colleague Beccari accepted the first university chair in chemistry as a result of this reorganization.<sup>45</sup> More likely, however, they testified to the growing strength of her connections in the Senate, where supporters like Aldrovandi rallied to her cause. Less than a decade after her installation as a "celebrated woman," Bassi's presence had achieved what her patrons hoped it would do: more foreigners were coming to Bologna, and the visibility, if not exactly the reputation, of the Studium had risen accordingly. As one of her biographers put it, "no scholar would pass through Bologna without being eager for her learned conversation." Contemporaries delighted in knowing about the "visitors of consequence" like Joseph II or the son of the Polish king who graced her philosophical conferences.<sup>46</sup> By acceding to the demands placed upon her by various patrons, Bassi eventually found herself in a position of strength, for she could expect some degree of reciprocation. This took the form of concessions to her desire to participate more actively in the culture of the Studium and the allocation of money to support the costly equipment and materials for the physical and electrical experiments that she and Veratti began to do at home. Still convinced that her situation was not all that it could be, Bassi gradually began to accelerate attempts to increase her responsibilities at the university and the Institute, as her circle of patrons grew.

#### ENTER THE PATRON: BENEDICT XIV AND EDUCATIONAL REFORM

While Bassi enjoyed the patronage of many contemporaries, Prospero Lambertini (1678–1758) shaped the early and most significant stages of her career. "Among these [admirers], Benedict XIV was one of the most insatiable in praising her," wrote the author of Bassi's obituary in the *Avvisi di Bologna* in 1778.<sup>47</sup> Cardinal Lambertini had only recently returned to Bologna as its archbishop when Bassi took her degree. The timing of these two events was hardly coincidental. Lambertini, passionately devoted to his birthplace and keenly interested in the sciences, was precisely the sort of patron that Bassi needed to catapult her from relative obscurity to international fame. As archbishop of Bologna (1731–1740), he encouraged the university and the Senate to recognize Bassi's accomplishments. As pope (1740–1758), he show-

<sup>44</sup> ASB, *Assunteria di Studio: Requisiti dei Lettori*, Box II, n. 21 (Laura Bassi, 1739) (quotations); *Assunteria di Studio: Atti* (1735–1743), Vol. 23 (5 Dec. 1739); and Melli, "Laura Bassi Veratti" (cit. n. 3), p. 74.

<sup>45</sup> Cavazza, "Scienziati in Arcadia" (cit. n. 39), p. 433; and Cavazza, *Settecento inquieto* (cit. n. 17), p. 77. For more on university reform see F. Baldelli, "Tentativi di regolamentazione e riforme dello Studio bolognese nel '700," *Carrobbio*, 1984, 10:9–23. Beccari had already held that position at the Institute since 1734.

<sup>46</sup> BCAB, B.2727, cc. 18v–19r; *Lettere inedite*, p. 201; and Comelli, "Laura Bassi e il suo primo trionfo" (cit. n. 21), pp. 222–223.

<sup>47</sup> *Avvisi di Bologna*, 25 Feb. 1778, in Cavazzuti, "Nuovi testi sull'attività scientifica e filosofica di Laura Bassi" (cit. n. 26), p. 66.

ered further gifts upon the Institute, of which Bassi was a member, and intervened when other academicians attempted to exclude Bassi from the activities of the Institute or limit her participation. Without the support of Lambertini, Bassi undoubtedly would have been a woman of note, but not someone who excited the admiration of princes and philosophes and earned a position in the Republic of Letters.

Despite his importance to the culture of Enlightenment Italy, Lambertini has not received the sort of scholarly attention that he merits. Holder of a degree in theology from La Sapienza, the University of Rome, Lambertini rose through the ecclesiastic ranks to become custodian of the Vatican Library (1712–1726). It was at the end of his tenure there that Monsignor Lambertini was called upon to arbitrate the acrimonious disputes between Luigi Ferdinando Marsili and the Senate of Bologna over the proposed reform of the Studium in 1726; he decided in favor of Marsili's more "modern" program. Five years later he returned to his native city as its archbishop. Once installed in Bologna, Lambertini renewed his contacts with the Institute and the Studium and strove to complete the work that Marsili had left unfinished.<sup>48</sup> Nurtured in the Italian Republic of Letters shaped by Lodovico Antonio Muratori and Scipione Maffei, and the heterodox scientific culture of eighteenth-century Rome embodied by his friend, the Jesuit Boscovich, Lambertini's plans for educational and religious reform reflected the optimism of the early decades of the eighteenth century, when much seemed possible. As pope, he would loosen the restrictions censoring Copernicus and Galileo and initiate a reorganization of La Sapienza that included the introduction of a chair in experimental physics.<sup>49</sup> For the moment, however, he confined himself to improving the state of learning in Bologna.

As a friend of Aldrovandi, Beccari, Eustachio Manfredi, the anatomist Ercole Lelli, the publisher Lelio della Volpe, and the Zanotti brothers, Lambertini quickly associated himself with the social and intellectual avant-garde. Through them, he must first have heard of the female prodigy of learning in their midst. Despite his reputed "abhorrence of women," Lambertini was so taken with Bassi that, according to one contemporary chronicler, he "encouraged her to take a degree and ordered the College of Doctors of Philosophy to award her a degree without considering to what extent the Imperial faculties of the same Collegians extended the awarding of degrees to women." Here we should recall Lambertini's presence at all of the ceremonies surrounding Bassi's intellectual ascension in the Studium. The archbishop was not simply a mute witness to her philosophical and oratorical skills. As two different witnesses tell us, "Signor Cardinal Prospero Lambertini wished to participate in the exam as a doctor in philosophy." On 1 June 1732 he visited Bassi at home to congratulate her on her recent success.<sup>50</sup>

<sup>48</sup> Cavazza, *Settecento inquieto* (cit. n. 17), p. 235. The most comprehensive treatment of Lambertini can be found in the articles collected in *Benedetto XIV (Prospero Lambertini): Convegno internazionale di studi storici*, ed. Marco Cecchelli, 2 vols. (Cento: Centro Studi "Ghirolamo Baruffaldi," 1981); Renée Haynes, *Philosopher King: The Humanist Pope Benedict XIV* (London: Weidenfeld & Nicolson, 1970), p. 37; and Rosen, "Academy of Sciences" (cit. n. 17), p. 56.

<sup>49</sup> Giuseppe Cenacchi, "Benedetto XIV e l'Illuminismo," in *Benedetto XIV*, ed. Cecchelli, Vol. 2, pp. 1079–1102, on p. 1094; and Heilbron, *Electricity in the Seventeenth and Eighteenth Centuries* (cit. n. 4), pp. 145–146. For more on the intellectual climate in Enlightenment Italy see Brendan Dooley, *Science, Politics, and Society in Eighteenth-Century Italy: The "Giornale de' letterati d'Italia" and Its World* (New York: Garland, 1991).

<sup>50</sup> BCAB, B.517, c. 4r (Giacomo Amadei, *Libro delle cose che vanno accadendo in Bologna . . . dal 1732 al 1743*), in *Benedetto XIV*, ed. Cecchelli, Vol. 1, p. 177 (urging the degree); BCAB, *Gozzadini*

Although never a member of the Institute academy, Lambertini was its most important benefactor after its founder Marsili. As he wrote to Marchese Paolo Magnani from Rome in 1744, "the Institute is capable of rendering famous our *patria*, as the university did in other times." While showering the Institute and its academicians and professors with gifts and preferments, he nonetheless was very much an absent patron. The records of the Institute indicate that he appeared only twice in any formal capacity: to pose two paradoxes for the academicians to solve in 1736, and to introduce the *motu proprio* for the formation of the *Benedettini* in 1745. Perhaps his most enduring legacy was the enormous library he bequeathed to the Institute upon his death. Benedict XIV, as Bassi's husband Giuseppe Veratti noted, remade the Institute through his patronage. "Now by the highest and incomparable beneficence of Our Great and Good Pontifex Benedict XIV, the Academy of this Institute for Sciences no less than the Institute itself recently has received a new form, indeed one could say that it was refounded," wrote Veratti in his *Physico-Medical Observations on Electricity* (1748).<sup>51</sup>

While Lambertini began with the regeneration of intellectual life in Bologna, as pope he strove to expand his reforms to encompass all of Italy. Women continued to have a place in his endeavors, since their accomplishments reflected the success of the new scientific learning as the core of an educational program that, he imagined, would eventually revitalize the Catholic world. Bassi was the first woman to whom he offered his patronage, but certainly not the last. After browsing through a copy of Agnesi's *Analytical Institutions* (1749), he encouraged the Milanese mathematician to become a professor for the "glory of Italy." A day later, he wrote again to urge her to accept the offer of membership in the academy of the Institute. By October 1750 the Senate had awarded Agnesi an honorary chair in mathematics, despite her lack of a degree, thanks to "the sovereign attention of His Beatitude, excited by your merits."<sup>52</sup> Thus Agnesi, like Bassi, was drawn into the orbit of the Institute and the Studium as a result of Lambertini's patronage.

Coming only four years after Châtelet had been admitted to the Institute, and within a year of the French *newtonienne's* death, the embracing of Agnesi by the academicians in Bologna looked suspiciously like the act of a society in search of external luster. Francesco Maria Zanotti, for example, described the decision to admit Madame du Châtelet as motivated by "a sort of ambition . . . that you, who are

140, c. 12r; and BUB, Codex 212 (116), no. 23, c. 94r; see also Haynes, *Philosopher King* (cit. n. 48), p. 67. On Lambertini's circle in Bologna see Mario Fanti, "Prospero Lambertini, Arcivescovo di Bologna (1731–1740)," in *Benedetto XIV*, ed. Cecchelli, Vol. 1, pp. 165–210, on p. 173; and Haynes, *Philosopher King*, pp. 47–48.

<sup>51</sup> In Paolo Prodi, "Carità e Galateo: La figura di Papa Lambertini nelle lettere al marchese Paolo Magnani (1743–1748)," in *Benedetto XIV*, ed. Cecchelli, Vol. 1, pp. 447–471, on p. 463; and Giovanni Giuseppe Veratti, *Osservazioni fisico-mediche intorno alla elettricità* (Bologna, 1748), sig. a.7r. See also Rosen, "Academy of Sciences" (cit. n. 17), pp. 216, 233. On the phenomenon of the "absent patron" see Mario Biagioli, "Scientific Revolution, Social Bricolage, and Absolutism," in *The Scientific Revolution in National Context*, ed. Roy Porter and M. Teich (Cambridge: Cambridge Univ. Press, 1992), pp. 26–32; Biagioli, "Galileo's System of Patronage" (cit. n. 15), pp. 36–38; and Prodi, "Carità e Galateo," p. 465, n. 34.

<sup>52</sup> Benedict XIV to Agnesi, 21 June 1749, Biblioteca Ambrosiana, ms. O.202 sup., c. 2; Benedict XIV to Agnesi, 22 June 1749, Biblioteca dell'Accademia delle Scienze dell'Istituto di Bologna, *Antica Accademia: Lettere ricevute*, fasc. 2 (1741–1750), A–B; and Camillo Grossi, ed., *Maria Gaetana Agnesi da Milano Professoressa Onoraria di Matematiche all'Università di Bologna l'Anno MDCCL: Documenti e note* (Bologna, 1843), letter 6 (8 Oct. 1750).

such an illustrious ornament of France, would begin in this way to be an ornament of Italy, particularly Bologna." Châtelet's untimely death in 1749 significantly reduced the ranks of illustrious women associated with the Institute. With the aggregation of Agnesi, corresponding members of the Institute academy like Giovanni Poleni in Padua could write that "Italy can no longer envy France, which boasts Madame du Châtelet." Benedict XIV, "content to see that the beautiful sex is devoted to the progress of the sciences," perceived the association between learned women and the scientific culture of Bologna to be a happy, albeit calculated, reflection of the *renovatio* of the sciences in his native land. And he expected Bassi, through her continued presence in the institutions of learning that he held so dear, to complete this circle by communicating her congratulations to the other women that he brought to the Institute's attention.<sup>53</sup>

### CHANNELS OF COMMUNICATION

Benedict XIV may have been Bassi's principal patron, but her communication with him was by no means direct. Intermediaries played a central role in her ability to accumulate privileges.<sup>54</sup> Her most important contact in this regard was Flaminio Scarselli. A member of the Institute since 1722, Scarselli was secretary to the Bolognese ambassador at the papal court. The primary intermediary between Benedict XIV and the people of Bologna, Scarselli returned to his native city in 1760; he served as secretary (*segretario maggiore*) to the Senate until his death in 1776.

Bassi's education in the vicissitudes of patronage began soon after she obtained her degree. Her contact with some of the most important men of the city—Aldrovandi, Lambertini, and Zanotti, to name a few—prior to her public appearance gave her instant cachet. With their backing, no palazzo was closed to her. No doubt at the encouragement of some of these patrons, she began to introduce herself to the wider learned community in Italy. As Ruth Perry notes, epistolary communication was as much a female as a male prerogative, and an appropriate means of expanding one's circle of acquaintances. In a letter to Giambattista Morgagni in 1733, for example, Bassi wrote: "Since I consider it to my greatest advantage to hear my insufficiency accredited by the greatest *letterato* that Italy has, I will never cease to profess to you my most obsequious and sincere obligation for many signal favors. May this gratify your Most Illustrious Signor, since I beg you dearly to continue [giving] me the honor of your most esteemed grace and patronage."<sup>55</sup> Through her adept use of the language of patronage, Bassi established a foothold in the world of learning by obliging scholars like Morgagni to protect and encourage her as a sign of their munificence. In a community bound by concepts such as honor and trust, to refuse the praise of a learned woman, a Minerva on the horizon, would be to

<sup>53</sup> Zanotti to Émilie du Châtelet, 7 Apr. 1746, Bologna, in De Zan, "Voltaire e Madame du Châtelet" (cit. n. 18), p. 156; Giovanni Poleni to Agnesi, 5 July 1749, Padua, Biblioteca Ambrosiana, ms. O.201 sup., c. 22v; Gino Evangelisti, *Arguzia petroniana nei motti di spirito di Papa Lambertini* (Bologna: Ponte Nuovo Editrice, 1990), p. 36 (quoting Benedict); and Bassi to Agnesi, 18 June 1749, Bologna, Biblioteca Ambrosiana, ms. O.201 sup., c. 10.

<sup>54</sup> On the brokerage system in Italy see Biagioli, "Galileo's System of Patronage" (cit. n. 15), esp. pp. 6–13; and Paula Findlen, "The Economy of Scientific Exchange in Early Modern Italy," in *Patronage and Institutions*, ed. Moran (cit. n. 15), pp. 5–24.

<sup>55</sup> Ruth Perry, "Radical Doubt and the Liberation of Women," *Eighteenth-Cent. Stud.*, 1985, 18:472–493, on p. 476; and Bassi to Giambattista Morgagni, 22 Aug. 1733, Villa di Secerno, in Melli, "Epistolario," p. 80.

ignore a scientific etiquette that depended on such relationships. Bassi, luminescent in her efforts to repay the honor of her patrons, was a client that no virtuoso could possibly refuse.

While mentors in Bologna encouraged her to cultivate the arbiters of the Italian Republic of Letters, like Morgagni, others introduced her to well-positioned individuals like Scarselli, who offered more concrete rewards to clients through his proximity to the pope. In 1742 Bassi's cousin, the canon Giambattista Bassi, praised the Bolognese ambassador, his secretary Scarselli, Countess Bolognetti, Cardinal Pompeo Aldrovandi, and "so many others working for the Pope," as "all most able to obtain for you more than you could seek." With the ascension of Lambertini to the papacy in 1740, Scarselli became an invaluable source of information and negotiator for the Bolognese *letterati*. Very little occurred in the academic and political world of the city that did not reach Benedict XIV's attention via Scarselli. Bassi was not the only person to communicate her frustrations and desires to the papal secretary. Scarselli was the main intermediary between the Institute, as a whole, and Lambertini.<sup>56</sup> When his cousin Beccari became president of the Institute in 1749, the web of relations between the pope, the secretary, and the Institute was completed.

The relationship between Scarselli and Bassi was one of friendship as well as patronage. They exchanged poetry and local gossip, and the secretary offered Bassi advice on the placement and preferment of various relatives within the ecclesiastical patronage network. In turn, Bassi informed him about the local scientific and political scene—a situation from which he was increasingly removed, the longer he stayed in Rome. While Scarselli advanced Bassi's position in Bologna through his encouragement of papal intervention, she commiserated with him about his wife's fragile health and had her husband—increasingly known for his electrical therapy—suggest various cures.<sup>57</sup>

Scarselli figured prominently in the later advancement of Bassi's career. Through his ministrations, Bassi was included as the twenty-fifth member of the *Benedettini*, and her role in the experimental culture of the academy was thus assured. The machinations surrounding this particular appointment tell us much about the importance of the brokers who helped Bassi expand the parameters of her position. On 22 June 1745 Benedict XIV issued a *motu proprio* establishing a new category of membership in the Institute, which he presented in person on 25 August. In response to waning attendance at the academy meetings and a noticeable decrease in the number of scientific papers presented, Lambertini decided to create new incentives for the academicians to produce original research. The twenty-four individuals designated *Benedettini* would receive a 50-lire stipend on the condition that they present one dissertation a year, describing the results of new work. Modeled in part on the practice of the Paris Academy of Sciences, which paid a select number of members to do research, such initiatives were designed to ensure a certain degree of stability in the educational reforms recently enacted by encouraging experimental studies. As Lambertini wrote to Paolo Magnani in January 1746, shortly after the *Benedettini* had been established, "our common *patria* will resume the true title of Mother of studies in the opinion of polite men, if not in law at least in the physical sciences."<sup>58</sup>

<sup>56</sup> *Lettere inedite*, p. 186 (quotation); and Rosen, "Academy of Sciences" (cit. n. 17), p. 7.

<sup>57</sup> The correspondence between Bassi and Scarselli is found in Melli, "Epistolario," pp. 89–157, *passim*; and *Lettere inedite*, pp. 108–124.

<sup>58</sup> In Prodi, "Carità e Galateo" (cit. n. 51), p. 463.

Benedict XIV's designs did not go unnoticed by the academicians. By April 1745 rumors about his proposal and the composition of the list of twenty-four were circulating. As a general rule, fourteen—the president and secretary, all the professors, and their assistants—were to be appointed by the Senate; the remaining ten were to be chosen by the *Benedettini*. To initiate the process, however, Lambertini handpicked all twenty-four. Bassi's name did not appear anywhere on that list. Made aware of this fact, she wrote immediately to Scarselli to pose her dilemma. While couching the letter in terms of her acceptance of the wisdom of the pope's decision, she nonetheless underscored her interest in belonging to the elite core of the Institute:

I know that I am not among the nominated, and am glad not to be when placing me there would have resulted in the exclusion of some of those who are there, and deserve such an honor more than I do. Yet it would be arbitrary of His Holiness to place me in the series as I was placed in the University, *per straordinaria*, that is, as an extra. Here is the deception that I beg of you, in all secrecy, with the confidence that Our Holiness wishes to maintain, it is worth saying, the good opinion that he has had of me, [which exists] only by his bounty. On this occasion, you can help me, and no one better than you can, insinuate to His Holiness to give me some reply, as a *motu proprio*.

As she assured Scarselli, she had many dissertations ready to present to the Institute but was hesitant to do so, unless she was added to the *Benedettini*, “for fear that perhaps some would conceive [of the idea] that I would aspire to one of the first vacancies of these posts.”<sup>59</sup>

With Bassi obliquely reminding Scarselli of the unusual nature of her position at the Institute and her high level of productivity relative to many of those selected as *Benedettini*, the papal secretary mustered all available resources to bring about an alteration in the original plan. A week later he responded. Urging Bassi to exercise discretion, he informed her that the matter had been brought to the attention of the pope and was now in the hands of the papal legate:

Now nothing should be easier than to move the spirit of His Eminence, who knows you well and esteems you, to propose your addition to the Pensioners as a supernumerary, in the same fashion that you were assigned the Lectureship in universal Philosophy above the number of seventy-two. Since it is unsuitable for you to do this part, an honest and efficacious friend could do it, and should, if he loves the merit and honor of the Academy and *Patria*.

June produced a flurry of correspondence between Bologna and Rome as Bassi and Scarselli made arrangements to add her name to the list. The proposal was presented not as Bassi's own, but as coming from Scarselli and his associates; as she later observed, “I would not have been able to procure this honor for myself without a trace of presumption.” Bassi scrupulously followed the secretary's advice in drafting her supplication to Benedict XIV, once it was requested, and thanked Scarselli for the “shrewdness and caution which you exercised in proportion to your love and kindness towards me.” By 19 June, only a few days before the public announcement

<sup>59</sup> Bassi to Flaminio Scarselli, 21 Apr. 1745, Bologna, in Melli, “Epistolario,” pp. 105–106. This correspondence is also reproduced in *Lettere di quattro gentildonne bolognesi: Bassi-Tambroni-Dalle Donne-Martinetti* (Bologna: Monti, 1883), pp. 24–26.



of the composition of the first *Benedettini*, Bassi could write to Scarselli that the “excellency of the means adopted make me certain of the success of the affair.”<sup>60</sup>

Scarselli’s intervention on Bassi’s behalf did not end here, however. By October he was actively encouraging Bassi and Veratti to submit printed dissertations, dedicated to the pope, for Benedict XIV’s approval. Having observed the success that greeted the arrival of Pietro Paolo Molinelli’s dissertation on aneurysms, and the attempts of Monsignor Antonio Leprotti to motivate other academicians to submit their dedicated work, he wrote encouragingly, “Now why couldn’t you be numbered among these others? And why couldn’t you have some dissertations printed separately, dedicating them to His Holiness? . . . Then whoever presents the book would have all the opportunity to present a petition shortly thereafter, without need of more powerful help.” Less than a month later, following a pattern exercised to great advantage by earlier natural philosophers such as Galileo, Scarselli reminded Bassi of “the necessity of exploring first the spirit of His Holiness, if he is content with the dedication.” Bassi responded with equal caution, assuring him that she did not wish to send the pope an “imperfect thing.”<sup>61</sup>

In the midst of these rather ordinary negotiations, designed to conclude a successful patronage transaction, disaster nearly intervened. At a November 1745 meeting of the *Benedettini* the question of Bassi’s vote had been raised; several members voiced the opinion that, given the special nature of her position, she should “remain segregated from that body in such cases.” Neither Bassi nor her husband was there to defend her. Upon getting wind of this dissent, Bassi immediately requested that Scarselli have Benedict XIV arbitrate the affair. While leaving the final word with the pope, she nonetheless expressed an opinion about the “legitimate significance” of her place as the sole *Benedettina*. Reminding Scarselli that both the Institute academy and the Studium accorded her voting privileges, the latter “on the occasion of the Doctorates,” she saw no obstacle to exercising such rights in her new situation. “Nor do I know how to persuade myself enough that the singular clemency of Our Signor intended to tacitly deprive me of the best prerogatives of the Academy, that is, to take part in the election of new subjects when it occurs, after having deigned to desire my participation in everything else pertaining to the above-mentioned Academy.” However, she awaited the pope’s decision about whether her position encompassed these privileges or was simply a “quid tertium, that is, neither yes nor no.” As with the earlier frustration about her initial exclusion from the *Benedettini*, Bassi’s efforts were soon repaid, and Benedict XIV handed down a decision in her favor. Two weeks later she wrote to Scarselli to thank him for quieting “the doubting minds of our Academicians.”<sup>62</sup>

Bassi’s correspondence with Scarselli throughout the next decade was filled with the mundane details of an extended patronage relationship. While she never managed to publish her own dissertations separately—the only one to appear in 1745 was on the compression of air and was published in the *Commentaries* of the Institute—she

<sup>60</sup> Scarselli to Bassi, 28 Apr. 1745, Rome, in *Lettere inedite*, p. 108; and Bassi to Scarselli, 5 and 19 June 1745, Bologna, in Melli, “Epistolario,” pp. 107–109.

<sup>61</sup> Scarselli to Bassi, 23 Oct. and 16 Nov. 1745, Rome, in *Lettere inedite*, pp. 110, 112; and Bassi to Scarselli, 30 Oct. 1745, Bologna, in Melli, “Epistolario,” p. 113. For a comparative view on these tactics see Mario Biagioli, “Galileo the Emblem Maker,” *Isis*, 1990, 81:230–258.

<sup>62</sup> Bassi to Scarselli, 27 Nov. and 11 Dec. 1745, Bologna, in Melli, “Epistolario,” pp. 115–117.

aided her husband in the publication of his *Physico-Medical Observations on Electricity* and followed Scarselli's advice about the etiquette of presenting copies to key members of the papal court. In 1749 Scarselli could report that the treatise had been well received by the "right people."<sup>63</sup> Despite the papal secretary's encouragement, perhaps Bassi, like many women during this period, concluded that the difficulties of getting her work published outweighed the potential benefits. Already ensconced in the university and the Institute, there was little room for her further advancement.

During the same period, Bassi expanded her teaching and research activities, "passing from Theory to experiments," as one biographer put it. Beginning in 1749, she offered private lessons in experimental physics at home and began to collaborate further with Veratti in his work on electricity. With the death of Matteo Bazzani, she took over "the exercises in Physics." All of these activities were costly, and Bassi and Veratti spared no expense in acquiring the most up-to-date equipment for their domestic laboratory, visited by luminaries such as Nollet—who was singularly unimpressed by Veratti's theories about the medical uses of electricity—and Beccaria. By 1755, frustrated in her attempts to get the Senate to increase her stipend, Bassi again turned to Scarselli for help, asking him "for your wisest counsel in this in order to understand what means I could employ to procure the help of Our Signor in this affair." Scarselli's response, in this instance, was more guarded:

But . . . from whom do you request that recompense? Whoever speaks of it to Our Signor easily will hear the response that, having often spent a great deal to provide machines and equipment, the Institute must not think of providing them still for private Houses. And as for the people [involved], he perhaps will believe that he has done enough, assigning and increasing the honors to the Professors and Academicians in that place.<sup>64</sup>

Ironically, Bassi had been right when she observed in 1745 that those who benefited from the creation of the *Benedettini* would receive no further favors from the pope. Her own situation now bore out this observation.

In a second letter to Scarselli, Bassi mustered all the ammunition that she could find to persuade the papal secretary that this was a battle worth fighting. Reminding him of the importance of experimental physics and of Bologna's primacy in the introduction of this field of study to Italy, she bemoaned its current state: "Now we must blush to see the damage to our University. Everywhere else but here one teaches with that method . . . , giving entire courses annually." Whether Bassi's pleas fell on deaf ears is hard to say. In March 1759, a year after the death of Lambertini, she received a raise of 140 *lire*. By 1760 she earned 1,200 *lire* annually, a salary higher than that of any of the other professors and members of the Institute, including the president Beccari and the secretary Zanotti.<sup>65</sup> This was undoubtedly the most

<sup>63</sup> Scarselli to Bassi, 18 Jan. and 15 Feb. 1749, Rome, in *Lettere inedite*, pp. 117–119; see also Bassi to Scarselli, 8 June 1749, Bologna, in Melli, "Epistolario," p. 129. On Bassi's dissertations see note 5.

<sup>64</sup> BCAB, B.2727, c. 17v; ASB, *Assunteria di Studio: Atti* (1743–1755), Vol. 24 (10 Apr. 1750); *Assunteria di Studio: Requisiti dei Lettori* (Laura Bassi, 1750); Bassi to Scarselli, 14 June 1755, Bologna, in Melli, "Epistolario," p. 149; and Scarselli to Bassi, 21 June 1755, Rome, in *Lettere inedite*, p. 123. For more on Nollet's reaction see Simon Schaffer, "Self Evidence," *Crit. Inq.*, 1992, 18:327–362, esp. pp. 339–349.

<sup>65</sup> Bassi to Scarselli, 16 July 1755, Bologna, in Melli, "Epistolario," p. 151. On Bassi's raise and for her salary see ASB, *Assunteria di Studio: Atti* (1756–1777), Vol. 25, fol. 16 (3 Mar. 1759); and Elena, "Introduction to Laura Bassi" (cit. n. 3), p. 514. Beccari and Zanotti both earned 800 *lire*.

tangible result of her continued efforts to have her activities rewarded. Thanks to the strong support of patrons such as Lambertini and intermediaries such as Scarselli, whatever qualms members of the Institute and the Studium may have had about fully integrating her into their activities slowly eroded.

While cultivating influential patrons, by mid career Bassi also offered similar services to younger scholars and foreigners seeking admittance to the academic world of Bologna. Her sex undoubtedly made it easier for her largely male clients to see her in this role, since Enlightenment salon culture privileged women as arbiters of intellectual debate. As early as 1745, Francesco Maria Zanotti declared that Bassi was the "arbiter of all his sentences." Visiting scholars like Nollet saw the Institute under her guidance and met the other academicians in her home. Many were directed to Bassi by Beccaria, professor of physics in Turin since 1749, who wrote letters of introduction for English and French visitors touring Italy. Writing to Veratti in 1763, he asked to be remembered to "Donna Laura, always my esteemed patron, to thank her for the Commemoration that she wished to make of my law of refraction in Rock Crystal." Like Zanotti, he consulted with her frequently, particularly before publishing his findings on electrical fluid.<sup>66</sup> She was a colleague with whom to share his discoveries—but also a patron whose visibility increased his own importance.

Bassi's other noteworthy clients were Voltaire and Spallanzani. While Voltaire was a one-time client, beseeching Bassi to submit his name as a candidate for admission to the Institute academy in 1744, Spallanzani developed a relationship with his cousin that extended well beyond any obligations he might have felt toward her as a tutor and a relative. Spallanzani's correspondence with Bassi spanned roughly the last decade of her life. Shortly after his admission to the Institute in 1768, he began to share his experiments on snails and salamanders with her, sending particularly fecund samples by courier so that she could observe their generative powers on her own and confirm his results. Spallanzani constantly repaid "the honor of her Patronage" by sending promising scholars in her direction. In 1770 he introduced Charles Bonnet; a year later he encouraged Alessandro Volta to send his "youthful productions" to the learned *dottoressa*. Like Giuseppe Testa, who sent his son to Bologna to study with Bassi, Spallanzani perceived Bassi to be one of the most inspiring teachers of experimental philosophy that he had encountered and an indefatigable patron of the sciences. Writing to Veratti in 1782, four years after Bassi died, he remarked: "I am truly pleased to hear that you are teaching Experimental Physics to studious youth in your House, continuing the work of the *Signora Dottoressa*, your dearest Wife and my venerable Mistress, whom I will always remember as long as I live. I can say truthfully that what little I know, I owe in origin to her wise teachings."<sup>67</sup>

Negotiating her way within the scientific networks of Enlightenment Italy, Bassi was able to collect as well as dispense patronage. Through her contacts in Rome, she maintained her ties to Lambertini as he moved from the episcopate of Bologna to the papacy. Well situated in her position as the Minerva of the Institute, she

<sup>66</sup> Zanotti to Bassi, 27 Nov. 1745, Di Casa, in *Lettere inedite*, p. 164. See also Goodman, "Enlightenment Salons" (cit. n. 10); Giambattista Beccaria to Veratti, 10 Oct. 1763 and 19 Jan. 1765, BCAB, *Coll. Ant.* VI, 1745–1746; BCAB, B.2727, c. 18r; and *Lettere inedite*, pp. 45, 50–51.

<sup>67</sup> Masi, "Laura Bassi ed il Voltaire" (cit. n. 2), pp. 166–167, 170. The material on Spallanzani's relationship with Bassi is culled from *Lettere inedite*, pp. 125–141, 147, 157, 218; and Melli, "Epistolario," pp. 162–167.

facilitated interactions between natural philosophers. Truly, when one contemporary described Italy as “now, perhaps more than Britain, the home of true physics” in 1784, this praise indirectly acknowledged the efforts of Bassi, Lambertini, and Scarcellini, whose negotiations had resulted in the institutionalization of experimental physics in that region.<sup>68</sup>

#### BASSI AT THE ISTITUTO DELLE SCIENZE

By the end of the 1750s, Bassi could take great pride in her accomplishments. Despite the ambivalence with which female ambition was regarded in the eighteenth century, her success testified to the possibility of a woman, albeit an exceptional one, taking a position in public scientific culture.<sup>69</sup> Her petitions to the Senate had partially eroded the restrictions placed upon her teaching and increased her stipend immensely. While still participating in the annual lectures given during the carnival anatomy, she regularly produced papers for the meetings of the Institute and managed a famous school for experimental physics. Thanks to the efforts of Scarcellini, and behind him Benedict XIV, she had been awarded additional recognition as a *Benedettina*, one of the Institute elite, with all the voting rights of her male counterparts. Yet Bassi was still not completely satisfied. In 1772 the death of Paolo Balbi, professor of experimental physics at the Institute since 1770, provided her with one last battle to wage.

The decision to award Bassi the chair in experimental physics in 1776 was the product of numerous debates and discussions on the part of the other voting members of the Institute. They arrived at that decision neither quickly nor easily. The death of Balbi had left the chair vacant. Veratti had been his assistant and was therefore a logical successor. The Institute, however, deliberated slowly about what to do. By May 1776, undoubtedly at the insistence of Bassi, Veratti, and their supporters, discussion was opened about the future of the course in experimental physics (*corso di fisica sperimentale*). After considering proposals to separate investigations of electricity from the study of experimental physics, mirrored by the idea of creating a separate room in the Institute museum for electrical apparati, the academicians, led by Senator Aldrovandi, finally came to the issue of the vacant chair. Those present considered three options: to promote Veratti; to promote Lorenzo Bonacorsi, academician since 1743, so that he could become a *Benedettino*; and to consider the request of Bassi that she be made a candidate. Undoubtedly the secretary who transcribed the proceedings expressed the exasperation of many participants in the ensuing debate when he recorded the following conversation:

finally to satisfy, if one ever can, the demands of Signora Laura Bassi who, although she has no right to be admitted among the Professors of the Institute, nevertheless has asked for this well over three Years, having nurtured some hope of this more than once. Given that she is a celebrated Woman known to the entire Republic of Letters, who truly brings great honor to her *Patria*, thus it seems that [her request] merits benign attention.<sup>70</sup>

<sup>68</sup> Quoted in Heilbron, *Electricity in the Seventeenth and Eighteenth Centuries* (cit. n. 4), p. 153.

<sup>69</sup> For more on the problem of female ambition see Goodman, “Enlightenment Salons” (cit. n. 10), p. 332; and Badinter, “Les limites de l’ambition féminine,” in *Émilie, Émilie* (cit. n. 16), pp. 417–464.

<sup>70</sup> ASB, *Assunteria dell’Istituto: Corsi, Laboratori e Professori: Diversorum*, Vol. 15, no. 42 (6 May 1776).

In the end, Bassi was awarded the chair and maintained Veratti as her assistant. He succeeded to the position in 1778 and was in turn succeeded by their son Paolo, who held the chair until 1796. Despite the attempts of some members to give her request only "benign attention," Bassi clearly commanded the loyalty of enough of a majority for her wish to be fulfilled. She became the Institute Professor of Experimental Physics at the age of sixty-five.

During his trip to Bologna in 1739 Charles de Brosses, like many other foreigners, had availed himself of the opportunity to see the fabled Institute. "I have made the acquaintance of the best [professors]," he wrote, "who know more than their profession because they are people of good society and *galants* in the service of women."<sup>71</sup> While Bassi never held office in the Institute—Veratti was vice-president of the academy six times and president twice—she nonetheless achieved a position of considerable significance. Even when intercessors such as Lambertini and Scarselli were no longer there to support her cause, she could count upon other allies from within the Institute to achieve the desired result. No doubt many of the members of the Institute learned from their experiences with this formidable woman. While they came to accept Bassi, they were increasingly less certain that the admission of women was beneficial to the Institute. Upon Bassi's death, the twenty-fifth position among the *Benedettini* was retired, to be reopened only when the obstetrician Maria Dalle Donne took up a professorship in 1800. The woman who accompanied Dalle Donne to the anatomical theater to defend her theses in 1799 was the classicist Clotilde Tambroni, professor of Greek at the University of Bologna since 1790; she was subsequently admitted to the Institute as an ordinary member in 1802. Having discovered how far an ambitious and persistent woman like Bassi could insinuate herself within the structure of the Institute, the male members of its academy were noticeably reluctant to allow another woman such latitude. Yet not until the end of the eighteenth century did they consider the possibility that an ideal scientific society should be a world without women, an image that their French and English counterparts had institutionalized a century earlier.<sup>72</sup>

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Bassi's death, like so many aspects of her life, did not go unmarked. Aside from the numerous eulogies given in her honor by members of the learned community, in Bologna and elsewhere, written notices of her accomplishments appeared in the journals serving the Republic of Letters. In Bologna, the Institute established a commission to judge a competition for a monument to their most famous female member. By 1781, the deliberations complete, work on a marble statue designed by Senator Antonio Bovio Silvestri was under way. After much discussion, it was decided that the image of Bassi should be placed above the door to the Nautical Room in the Institute, where many of Marsili's beloved model ships were housed.<sup>73</sup> During her

<sup>71</sup> *Lettres d'Italie du Président de Brosses*, ed. d'Agay (cit. n. 43), Vol. 1, p. 267.

<sup>72</sup> Renzo Tosi, "Clotilde Tambroni e il Classicismo tra Parma e Bologna alla fine del XVIII secolo," in *Alma mater studiorum* (cit. n. 3), pp. 119–134; and Olimpia Sanlorenzo, "Maria Dalle Donne e la Scuola di Ostetricia nel secolo XIX," *ibid.*, pp. 147–156. On all-male scientific societies as the ideal see David Noble, *A World without Women: The Christian Clerical Culture of Western Science* (New York: Knopf, 1992).

<sup>73</sup> ASB, *Assunteria dell'Istituto: Diversorum*, Vol. B6, no. 2 (*Concorso al monumento per Laura Bassi, 1778–1781*).

lifetime Bassi had constantly reminded her colleagues that she was not simply a figurehead, but a practicing experimental philosopher who wished to teach as well as perform research. She had fought long and hard to expand her role beyond its ceremonial functions, earning the respect, admiration, and, most important, support of many contemporaries in the process. Death, however, relegated her once again to a ceremonial position. Her likeness preserved in marble, positioned high above the doors through which the members of the Institute passed, she reclaimed her role as scientific muse. Smiling benignly down upon her former colleagues in effigy, and buried wearing her silver crown of laurels, Bassi reentered the realm of mythology from which she had emerged.

Despite this final apotheosis, the historical Bassi (rather than the mythical *filosofessa*) continues to elude easy categorization. Among her contemporaries, few, with the exception of Newton and perhaps Voltaire, enjoyed an equivalent degree of institutional recognition and public acclaim. Like her more illustrious predecessor Galileo, she was as keenly interested in her social advancement as in the image she would leave to posterity. While unable to create her own patronage “myths,” as Galileo did when he positioned himself as the giver of the Medicean stars to Cosimo II in 1610, she nonetheless deployed the symbols placed at her disposal to fashion an identity as a female natural philosopher; the strong classicizing elements that informed the Italian academic tradition allowed her to manipulate her image as Minerva and as Muse.<sup>74</sup> Her sharp appreciation of the social and political complexities of the scientific world allowed her, like her most successful male colleagues, to anticipate many of the obstacles that were thrown in her way and to draw upon the resources of the local and international learned community to resolve whatever problems arose. Most important, the unusual circumstances that first made Bassi a public figure offered her the opportunity to define the nature of her role. Unlike Galileo, searching for recognition and legitimation at the most powerful courts, Bassi *began* in the world of the scientific and literary salons and *moved into*, rather than *out of*, the institutional world of science. Having begun her career as the holder of a unique position, the first authorized female professor of any discipline at any university, she strove instead to “regularize” her situation, using the resources placed at her disposal to achieve this end. Which was the more successful is hard to say, depending on how we evaluate the long- and short-term consequences. While Galileo failed in his efforts to carve a stable niche for himself in the social world of seventeenth-century science, he left a lasting imprint on a discipline and on the contours of Italian science. Bassi, immensely successful in her own lifetime, receded into obscurity outside the parameters of her native city. Though an important figure in the introduction, teaching, and dissemination of Newtonianism and experimental philosophy in eighteenth-century Italy, Bassi was best remembered, even in her own day, for her exceptional circumstances rather than her ideas.

As the trajectory of Bassi’s career indicates, it is often easier to talk about the social and cultural roles of women in early modern science than about their intellectual presence. We know a great deal about how and where Bassi achieved her success, but very little about what she actually did in the classroom and the laboratory and how her students and colleagues responded. For different reasons, in the

<sup>74</sup> See particularly Mario Biagioli, “Galileo the Emblem Maker” (cit. n. 61); and Biagioli, “Galileo’s System of Patronage” (cit. n. 15).

case of Châtelet, we often know more about her relationship with Voltaire and its impact on her work than about the content of her publications. Despite the paucity of sources allowing us to connect social and intellectual issues, it is nonetheless evident that Bassi's success was seen by many contemporaries as indicative of the changing philosophical climate in Enlightenment Italy. In a less dramatic way, perhaps, than in France, the Italian community of philosophers was also in the process of making the transition from Cartesianism to Newtonianism, and Bassi became a symbol of that shift. While Bassi deftly persuaded patrons and colleagues to support her advancement within the academic hierarchy, her presence in the Studium and the Institute smoothed the way for the introduction of new and controversial philosophies of science and accelerated the institutionalization of experimental philosophy. She fought her battles not because she believed that women, in some abstract sense, deserved intellectual recognition—such a concept would have been inconceivable to her and to most of her contemporaries—but because she felt that her work as a teacher and experimental philosopher merited recognition. By the end of her career Bassi had, in essence, become the patron of the “new” science in Bologna, and it was in this capacity that she rightfully claimed the role of Minerva in the *Alma mater studiorum*.