

## Introduction

*Jeryldene M. Wood*

Piero della Francesca (ca. 1415/20–92) painted for ecclesiastics, confraternities, and the municipal government in his native Sansepolcro, for monks and nuns in the nearby towns of Arezzo and Perugia, and for illustrious nobles throughout the Italian peninsula. Justly esteemed as one of the great painters of the early Renaissance, Piero seems to balance abstraction and naturalism effortlessly, achieving unparalleled effects of quiet power and lyrical calm in such masterpieces as the *Resurrection* for the town hall of Sansepolcro and the *Legend of the True Cross* in the church of San Francesco at Arezzo (Plate 1 and Fig. 9). In these paintings, as throughout his oeuvre, clear, rationally conceived spaces populated by simplified figures and grand architecture coexist with exquisite naturalistic observations: reflections on the polished surfaces of gems and armor, luminous skies, and sparkling rivers and streams. The sixteenth-century biographer Giorgio Vasari praised Piero's close attention to nature, the knowledge of geometry seen in his pictures, and the artist's composition of learned treatises based on the study of Euclid.<sup>1</sup> His perceptions about the intellectual structure of the painter's work remain relevant to this day, for Piero's art, like Leonardo da Vinci's, has attracted a wide audience, appealing not only to enthusiasts of painting but also to devotees of science and mathematics.

In fact, Vasari's belief that the scholar Luca Pacioli stole Piero's mathematical ideas, which is expressed vehemently throughout the biography, doubtless contributed to the recognition and recovery of the painter's writings by later historians. Although it occasionally eclipses his discussion of Piero's paintings, Vasari's outrage also highlights how unusual the formulation of treatises on mathematics and perspective was for a fifteenth-century painter. But most importantly, Pacioli's theft provided the biographer with a central theme for characterizing Piero's life – the notion of loss. According to Vasari, the artist “is cheated of the honor due to him” by

2 Jeryldene M. Wood

Pacioli; his prestigious paintings in Urbino, Ferrara, and Rome were lost or painted over; and “he was prevented by the blindness that overtook him in his old age, and then by death, from making known his brilliant researches and the many books he had written.”<sup>2</sup> Vasari’s profile of Piero is indeed ironically prophetic because the destruction of several major paintings and the meager documentation of the artist’s life, projects, and workshop continue to plague modern studies of his work. Nevertheless, enough information survives to permit the construction of a reasonable chronology and to suggest how Piero gradually fashioned familial, communal, and artistic contacts into a network of individual and corporate patronage.

### The Life of Piero della Francesca

Piero della Francesca was at the height of his career when he painted the *Resurrection* in the municipal building of his native Sansepolcro (Plate 1). Rising triumphantly from a marble sarcophagus, the all-seeing and all-knowing Christ in this fresco masterfully fuses the religious faith and civic consciousness of a town named to honor its cherished relics from the Holy Sepulcher in Jerusalem.<sup>3</sup> Piero’s creation of such a striking communal symbol is not surprising, for in contrast to Leonardo and Raphael, who advanced their careers by moving to Milan and Rome, he remained a life-long citizen of Sansepolcro. Located amidst the rich agricultural lands of the Upper Tiber River, the town was a market center, a primary manufacturer of crossbows (emblazoned on its municipal coat-of-arms), and a crossroads for the trade routes traversing Tuscany, Umbria, Romagna, and the Marches.<sup>4</sup> By the time of his birth in the second decade of the fifteenth century, Piero’s family had lived in Sansepolcro for several generations and belonged to its affluent merchant class.<sup>5</sup> Like other youths of his class, Piero was educated to pursue a vocation in commerce. Presumably he learned reading, writing, and elementary Latin at a local grammar school and then received higher education in commercial mathematics at a *scuola dell’abaco* (abacus school).<sup>6</sup> Vasari tells us that Piero studied mathematics until he was fifteen years old, when he decided to become a painter, but unfortunately does not supply details about his apprenticeship. Archival records indicate that Piero probably learned tempera painting in Sansepolcro, where he assisted the local artist Antonio d’Anghiari on panels and cloth banners from 1432 to 1438, and that he may have acquired his skill in the fresco technique by working with Domenico Veneziano at Perugia in about 1438. To be sure, Piero must have been already proficient in this medium when he was hired in 1439 to paint frescoes in the hospital church of Sant’Egidio at Florence. Because his name is linked to payments made for Domenico Veneziano’s painting of the *Birth of the Virgin* in the Sant’Egidio records,

it also seems likely that his employment there was facilitated by the senior artist.<sup>7</sup>

During his stay in Florence, Piero had the opportunity to study the rich artistic patrimony of that city – from the fourteenth-century frescoes by Giotto in Santa Croce to the achievements of contemporary painters and sculptors during the 1420s and 1430s. Even a selective litany of the art available to Piero in Florence illustrates the difficulty of determining which works may have influenced him as a young artist. The paintings that he created in the 1440s, however, suggest his particular attentiveness to works of art in which monumental figures and architecture are set into illusionistic spaces composed according to the new science of perspective. For instance, Piero evidently responded to the imposing Brunelleschian architecture, coherent spatial structure, and solemn figures in Masaccio's *Trinity* at Santa Maria Novella, as well as to Masaccio and Masolino's dramatic history of Saint Peter in the Brancacci Chapel at Santa Maria del Carmine.<sup>8</sup> The perspective construction and simplified forms of Uccello's *John Hawkwood* in the Florentine cathedral and the lucid space and emotional restraint of Fra Angelico's *Descent from the Cross* in Santa Trinita also furnished compelling models. We do not know whether Piero saw Ghiberti's exquisite bronze reliefs for the second set of Baptistery doors, which were well under way during the late 1430s, but he would have known the heroic assembly of saints on the exterior of Orsanmichele, including Ghiberti's elegant *John the Baptist* and Donatello's ingenious *Saint George*. The inventive references to Roman art in Donatello's *Annunciation* in the Cavalcanti Chapel at Santa Croce and in the impressive *cantorie* (singing galleries) that he and Luca della Robbia had just completed for the cathedral, offered stimulating approaches to the synthesis of classical form and Christian content. Whether Piero also learned about the first contemporary treatise on painting by Leon Battista Alberti, composed after he too had been inspired by Florentine art during a visit in 1434, is a matter of conjecture.<sup>9</sup> Be that as it may, Alberti's explanation of perspective and the principles of painting in *Della pittura* (On Painting) not only accords with the morphology of Piero's paintings in the next decade, it also provides a singular precedent for the painter's own theoretical writings.

By 1445 Piero was back in Sansepolcro to sign a contract for his first major independent commission, an altarpiece for the chapel of the Confraternity of the Misericordia (Plate 2).<sup>10</sup> Family connections apparently contributed to his receipt of this commission. His father, like his grandfather, belonged to the confraternity; moreover, the della Francesca were acquainted with the Pichi family, the local nobles whose donation financed the altarpiece itself, and for whom Piero would compose a treatise on mathematics (the *Trattato d'abaco*).<sup>11</sup> For undetermined reasons, Piero left the Misericordia commission incomplete and journeyed north to work for several rulers, including the Este of Ferrara (in c. 1447–49) and

4 Jeryldene M. Wood

the Malatesta at Rimini, where his signed and dated fresco of 1451 still embellishes the chapel of Sigismondo Malatesta, the nephew of Sansepolcro's former lord (Plate 3).<sup>12</sup> Two panels of Saint Jerome, evidently painted for Venetian patrons, suggest that Piero attracted a local clientele along the Adriatic coast during his visits to Rimini, Ancona, and Loreto in those years (Plate 4).<sup>13</sup> Despite Vasari's emphasis on patronage from the Montefeltro family, Piero is not recorded in Urbino until 1469, where he had been called to estimate the value of a painting. How he came to the attention of the renowned Duke of Urbino is unknown, but he may well have benefited from the kinship uniting his Montefeltro, Malatesta, Este, and Sforza patrons.<sup>14</sup>

From the 1450s to the 1470s, the most productive decades of his career, Piero traveled regularly, completing frescoes for the Franciscan friars at Arezzo (c. 1452–66), in the Vatican Palace, and Santa Maria Maggiore at Rome (1458–59). He also provided a splendid polyptych for the church of Sant'Antonio at Perugia (c. 1455–68). At the same time, Piero preserved his commercial and domestic bonds with Sansepolcro, where he painted the high altarpiece for Sant'Agostino, contracted in 1454, and executed two frescoes in the municipal palace, representing the *Resurrection* and *Saint Louis of Toulouse*, in the 1460s (Plate 1).<sup>15</sup> During the last decades of his life Piero settled into a commodious new family home at Sansepolcro, which he decorated with paintings, including a *Hercules* that may have been part of a lost fresco cycle of heroes.<sup>16</sup> There, he composed treatises on mathematics (the *Trattato d'abaco* for the Pichi), perspective (*De prospectiva pingendi*, probably for Federigo da Montefeltro), and geometry (the *Libellus de quinque corporibus regularibus*, dedicated to Federigo's son Guidobaldo). Piero continued to accept commissions for paintings from relatives and acquaintances, such as the *Adoration of the Child* (Plate 19) for his nephew Francesco di Marco and his bride Madonna Laudomia in c. 1482–83, until his eyesight failed a few years before his death on 12 October 1492.<sup>17</sup>

### Piero's Theory and Practice of Painting

The Brera Altarpiece manifests Piero's continuing dialogue with the principles of Florentine painting encountered during his formative years (Plate 5). Destined for the site of his tomb in Urbino, Federigo da Montefeltro kneels before the Madonna and Child in this altarpiece with his hands clasped in prayer, his sword sheathed, and his helmet, gauntlets, and baton momentarily laid aside.<sup>18</sup> Piero's compositional structure in this painting, which relies on logically contrived perspective and imaginative architecture to center attention on the Madonna and Child, calls to mind Domenico Veneziano's Saint Lucy Altarpiece of the 1440s (Fig. 1). The



1. Domenico Veneziano, Saint Lucy Altarpiece, Florence, Galleria degli Uffizi (Photo: Scala/Art Resource, NY).

similarly complex illumination – direct, diffused, and reflected light – in both of these altarpieces models the figures and plays across opaque and transparent surfaces to create the illusion of generous space, volumetric figures, and diverse textures. Posed in a stepped semicircle and grouped by threes, Piero's saints, like Domenico's, perform distinct functions. John the Baptist establishes eye contact with viewers as he points to Christ and Mary (as Alberti recommended in *Della pittura*), whereas, the penitent Jerome looks toward the Madonna and Child to remind observers of the doctrine of salvation, and John the Evangelist, book in hand, exemplifies pious contemplation.<sup>19</sup>

Yet the verticality of the Brera Altarpiece – an anomaly that would have been even more obvious before a substantial strip was cut from the bottom of the painting – differs markedly from the square format typical of mid-fifteenth-century Florentine altarpieces like Domenico Veneziano's.<sup>20</sup> To counter the dense horizontal frieze of characters compressed in the

6 Jeryldene M. Wood

middle of the altarpiece, Piero creates an emphatic vertical axis through the architectural design and a perspective construction that converges at Mary's head.<sup>21</sup> The great barrel vault and the spectacular shell in the apse reiterate the slight curvilinear placement of the saints, while the perpendicular position of the vaults cropped at each side of the foreground extends the space outward towards the spectator. Dropping like a plumb line above and behind the head of the Virgin, an ostrich egg marks the center of the fictive space. Pictorial depth is measured around that egg, making visible what Pacioli called the "proper proportion of distance" in Piero's paintings.<sup>22</sup> As a result, the Virgin and saints, like the suspended egg, seem centered within the illusory space.

In addition to the Brera Altarpiece, Piero composed *De prospectiva pingendi* (On the Perspective of Painting) for the ducal court at Urbino. Written late in his career, the definition of painting espoused in this treatise refines the Florentine concept of *disegno* he had learned as a young artist.

Painting consists of three principal parts, which we call *disegno*, *commensuratio* and *colorare*. By *disegno* we mean profiles and contours which enclose objects. By *commensuratio* we mean the profiles and contours set in their proper places in proportion. By *colorare* we mean how colors show themselves on objects – lights and darks as the lighting changes them.<sup>23</sup>

If these principles are applied to the Brera Altarpiece, Piero's *disegno* ("the profiles and contours which enclose objects") distinguishes Duke Federigo from the saints, setting his famous features and stiff gleaming armor in sharp relief against the woolen garments of Saints John and Francis. At the same time, Piero unites the aging *condottiere* and the sleeping infant by isolating them below the horizon line and by aligning the duke's petitioning hands diagonally with the child's sloping body.<sup>24</sup> The relative scale of the figures dispersed on specific planes in the fictive space elucidates the concept of *commensuratio*: "the profiles and contours set in their proper places in proportion."<sup>25</sup> Duke Federigo's position as the figure closest to the picture plane explains his size, and the small stature of the angels surrounding the Virgin (elevated on a step so their feet roughly align with the other figures' knees, as Piero advised) is consistent with their location in the setting; only the Madonna is comparatively large given her relative position in the middle picture plane.<sup>26</sup> The light blue of the Baptist's mantle, shaded to a smoky gray-blue, the alternately shadowed and bright entablatures protruding at each side of the panel, and the gray and white pilasters in the apse exemplify Piero's *colorare*, "how colors show themselves on objects – the lights and darks as the lighting changes them." The surfaces of materials reflect or absorb light to convey the different textures of reflective armor, luminous pearls, burnished brocades, thick woolens, and diaphanous veils. Piero's *colorare* works in concert with his *disegno*

and *commensuratio*. It softens the profile of the Madonna's fully illuminated robe on the left while affirming the contour of her shaded right side. The dusky shadow behind the Madonna not only conveys the depth of the marble apse and the volume of the space around the ostrich egg, but its dark edge also strengthens the vertical axis of the painting. Touches of white selectively illuminate objects on each plane of the picture to interlock light and space; for example, on the duke's arm in the foreground, and on Jerome's left shoulder, Christ's crystal amulet, and John the Evangelist's beard in the middle ground.

Yet this kind of text/image analysis is ultimately unsatisfactory, for it fails to do justice to the translucent atmosphere, the gravity of the characters, and the fluency of Piero's picture as a whole; nor does it convey his eloquent interlacing of form and content. The pairing of Duke Federigo and the Christ Child, for instance, creates a psychological as well as a spatial interval. The distance between the sleeping baby and the duke provides a compelling reversal of the roles of God and man portrayed in the *Resurrection*, thereby deepening the poignant allusion to the *Pietà*. The superb compositional balance and the equilibrium of the monumental figures, as well as the exquisite details of Piero's picture, fashion a harmonious environment that stands in opposition to the chaotic reality of fifteenth-century Italy. Yet what a close study of the Brera Altarpiece elucidates most vividly is the subtle exaggeration of an art where space is excessively austere and ordered, where the light is too pure and bright for this world, and where the immobile characters are unusually quiescent.

The historical value of *De prospectiva pingendi* lies less in the direct application of its precepts to particular pictures than in the view it offers of Piero's cumulative thoughts about the conceptual and practical aspects of his craft after many years in the profession. The narrow parameters of Piero's treatise nevertheless raise questions about its purpose. For unlike Alberti's attention to the formal and psychological representation of the *istoria* (textual narrative) and his concern with the ethical training of painters in *Della pittura*, Piero explains only *commensuratio* – how artists should draw frequently encountered solid objects in correct foreshortening and properly position them in a measured three-dimensional space. Thus, when he explains the correct drawing of a man toward the end of the book, he addresses neither the spatial interaction of characters in the multifigured paintings typically commissioned in this era, nor the variations of pose, gesture, and expression needed to portray a narrative or a devotional image.<sup>27</sup>

Piero's extremely precise and detailed instructions for applying the principles of perspective to painting, which call to mind a modern programmer's complicated rendering of a simple task into computer language, are confusing in terms of the intended audience and function of the *Prospettiva*.<sup>28</sup> Most scholars concur on the sequence of Piero's three treatises.

tises: the *Trattato d'abaco* (Abacus Treatise) was composed first, followed by *De prospectiva pingendi*, and then the *Libellus de quinque corporibus regularibus* (The Book on the Five Regular Bodies).<sup>29</sup> The *Prospectiva*, however, differs from the earlier and later texts, which are both instructional manuals in applied mathematics. The *Trattato d'abaco*, according to its preface, is a textbook on commercial mathematics written in Italian for a member of the Pichi family of Sansepolcro, and the *Libellus*, dedicated to Duke Guidobaldo of Urbino, treats advanced studies in geometry to further the young prince's humanist education. Piero's explicit request that the *Libellus* be shelved next to his own book on perspective in the library at Urbino indicates that it was meant as a companion to the *Prospectiva* and that the latter was probably composed for the duke's father, Federigo da Montefeltro, who had established the collection.<sup>30</sup> That Piero had the Urbino treatises translated into Latin supports the notion that he directed his literary efforts toward these two *principi*, for both cultivated intellectual reputations. If Duke Federigo was indeed the intended patron for *De prospectiva pingendi*, this treatise presumably predates his death in 1482 and was likely composed in c. 1470–82, the decade of Piero's most sustained interaction with the Urbino court.<sup>31</sup>

Federigo da Montefeltro's education in classical history and literature, his interest in mathematics, and his aesthetic preferences imply that he would have been well disposed to the nuances of geometry and perspective addressed in Piero's *Prospectiva*. The duke's avid acquisition of manuscripts – be they ancient texts or contemporary interpretations of them – evinces his penchant for humanist studies; his magnificent library counted among its volumes antique texts such as Vitruvius's *Ten Books on Architecture* and Alberti's modern sequel, *De Re Aedificatoria*.<sup>32</sup> These architectural treatises clearly contributed to his ideas for the renovation and expansion of the palace at Urbino, which expressly manifests a visual aesthetic grounded in classical ideals of moderation and geometrically devised proportions. The harmoniously proportioned Court of Honor, the carefully crafted frames surrounding intricate intarsia doors, and the adornment of the latter with mythological deities and heroes, female personifications of virtue, and architectural prospects, exemplify the duke's passion for the classical. The astonishing trompe l'oeil cabinetry of the *studiolo* most famously represents the duke's taste in visual art. There, an expansive perspective view and beautifully rendered solid objects – a celestial globe, books, a cuirass – coexist with personifications, personal emblems and devices, and “portraits” of illustrious men. Duke Federigo's patronage demonstrates surprisingly little interest in narrative art. On the contrary, he favored portraits, allegories, and artfully rendered illusions, as in the *studiolo*, or as depicted in the painting of an “Ideal City,” at one time attributed to Piero (see Fig. 28).<sup>33</sup> Piero's application of the principles of solid geometry to pictorial design and his adaptation of classical motifs to



a contemporary genre in his portraits of Federigo and his consort Battista Sforza are logical in light of the duke's preferences (Plates 26 and 27). Set before sweeping landscapes, the clean, volumetric profiles of the rulers dominate the front of this diptych, while erudite references to ancient coins, medallions, and epigrams enrich the Petrarchan triumphs on the reverse. Just as the visual virtuosity of Piero's ducal portraits doubtless pleased the duke's connoisseurship, the mathematical resolution of design problems in his *Prospettiva* most likely delighted his intellectual curiosity. One suspects that Federigo da Montefeltro agreed with Alberti's dictum: "I want the painter as far as he is able to be learned in all of the liberal arts, but I wish him above all to have a good knowledge of geometry."<sup>34</sup>

### Formal and Iconographical Problems in Piero's Oeuvre

Seemingly irresolvable issues of style and iconography immediately confront scholars of Piero's work. In addition to the loss of important paintings, as Vasari recognized in the sixteenth century, our inadequate knowledge about Piero's workshop and the original locations of some pictures has hampered efforts to fix a chronology of his works or to interpret the enigmatic iconography of several paintings.<sup>35</sup> While debates over the dating and subject matter of pictures such as the *Flagellation of Christ* show little signs of abating, as we shall see, restorers and archivists have laid to rest similar arguments about other paintings, such as the Sant'Antonio Altarpiece.

The singular consistency of Piero's style throughout his career has frustrated attempts to establish a satisfactory sequence of his artistic development. Although his paintings verify the extensive employment of assistants, possibly even more than was customary practice among Renaissance artists during the busy 1450s and 1460s, we possess little information about Piero's actual workshop. Documents name Giovanni da Piamonte as his assistant on the *Legend of the True Cross* at Arezzo, and Vasari lists Luca Signorelli and Lorentino d'Andrea, whose paintings clearly demonstrate his influence, as well as the unknown Piero da Castel della Pieve, as his students.<sup>36</sup> Where Piero trained these apprentices is not clear either, though he must have operated an active workshop in Sansepolcro for most of his career, since he worked there continually from the mid-1450s until his death. In addition to the Aretine origins of Signorelli and Lorentino, the demands of the fresco medium and the magnitude of the project for San Francesco suggest that Piero probably maintained a second workshop at Arezzo during the execution of the *Legend of the True Cross* (c. 1450–66).<sup>37</sup>

Piero's *Flagellation of Christ* exemplifies the perplexing iconographical problems faced by scholars (Plate 6). First mentioned in an eighteenth-century inventory of the cathedral sacristy at Urbino, the painting was transferred to the ducal palace in 1916, but no earlier provenance has come

## 10 Jeryldene M. Wood

to light. The odd size of this painting – too large for a predella and smaller than an altarpiece or most independent panels of this period – precludes determining whether it was painted for religious or secular purposes. Though the inscription *PETRI DE BVRGO SCI SEPVLCRI* on Pilate's throne attests his authorship, the date when Piero actually executed the painting has been much debated; various suggestions range from c. 1444 to 1469.<sup>38</sup> The stylistic relationship of the *Flagellation* to Piero's other works, particularly to the *Legend of the True Cross* at Arezzo, has been rendered all the more problematic by the absence of firm dates for these paintings as well.<sup>39</sup> An inscription noted by Passavant in 1839, which no longer survives but was most likely on the original frame of the *Flagellation*, records the phrase "they met together" (*convenerunt in unam*) taken from Psalms 2:2: "The kings of the earth stood up, and the princes met together, against the Lord and against his Christ." The lost inscription, the resemblance of Pilate to the Byzantine Emperor John VIII Paleologus, and the peculiar mixture of Greek, Italian, and pseudoclassical clothing worn by the three figures in the right foreground have prompted iconographical explanations that associate the panel with mid-fifteenth-century issues such as the reunification of the Greek Orthodox and Roman Catholic churches and papal appeals for crusades to recover the Holy Land from Islam. Attempts to identify the three characters as portraits, taken in conjunction with a popular legend that the barefoot youth represents Count Oddantonio da Montefeltro, who was assassinated in 1443, have generated interpretations that connect the picture specifically with Federigo da Montefeltro's accession to power after his half-brother's murder. But in the end, such theories circle around a pair of assumptions: that the *Flagellation* was always at Urbino and that the three figures portray actual individuals.<sup>40</sup>

The Sant'Antonio Altarpiece presents a different set of problems (Plate 7). In contrast to the *Flagellation*, the location of Piero's polyptych in Sant'Antonio di Padova, the church of the Franciscan female tertiaries in Perugia, has been established since Vasari saw it there in the sixteenth century. But unlike the praise consistently bestowed on the *Flagellation*, the Sant'Antonio Altarpiece was criticized for the considerable participation of assistants in its production, for the perceived incongruity of its parts, and for the "old-fashioned" gold background in the central section. In a fortuitous turn of events for Piero studies, a recent campaign of restoration and archival research resolved a number of these crucial questions.

Documents discovered in the Perugian archives now persuasively date Piero's execution of the work to the years between 1455, when the sisters of Sant'Antonio received permission to have Masses said on the altar of their church, and 1468, when they requested assistance from the town council to pay for their completed altarpiece.<sup>41</sup> Additional records indicate that Franciscan and family connections may well have secured Piero's commission from the tertiaries. For not only was Piero employed on the