



21-1 PIERO DELLA FRANCESCA, detail of *Flagellation of Christ* (FIG. 21-43), ca. 1455–1465. Galleria Nazionale delle Marche, Urbino.

One hallmark of Italian Renaissance painting is the representation of architecture using the new mathematically based science of linear perspective. Piero della Francesca was a master of perspective painting.

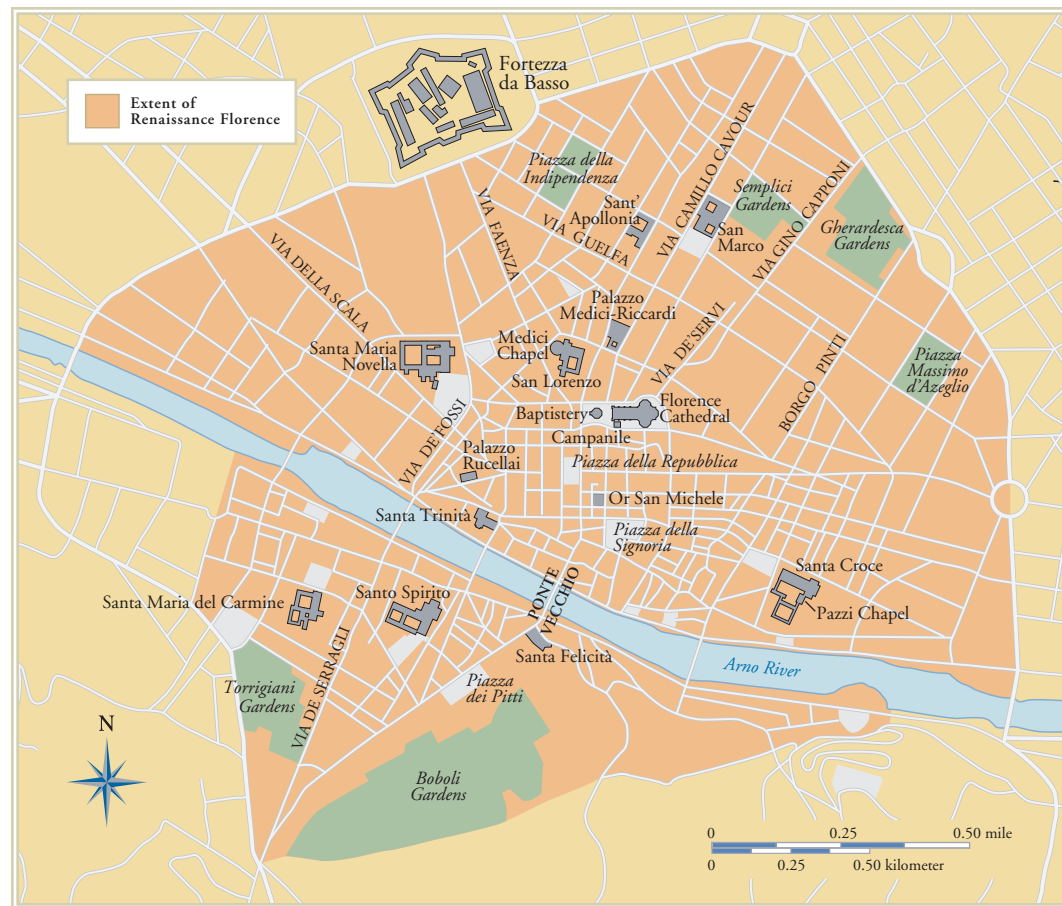
ITALY, 1400 TO 1500

The humanism that Petrarch and Boccaccio promoted during the 14th century (see Chapter 19) fully blossomed in the 15th century. Increasingly, Italians in elite circles embraced the tenets underlying humanism—an emphasis on education and on expanding knowledge (especially of classical antiquity), the exploration of individual potential and a desire to excel, and a commitment to civic responsibility and moral duty. Italy in the 1400s also enjoyed an abundance of artistic talent. The fortunate congruence of artistic genius, the spread of humanism, and economic prosperity nourished a significantly new and expanded artistic culture—the Renaissance. Artistic developments in 15th-century Italy forever changed the direction and perception of art in the Western world.

For the Italian humanists, the quest for knowledge began with the legacy of the Greeks and Romans—the writings of Socrates, Plato, Aristotle, Ovid, and others. The development of a literature based on the commonly spoken Tuscan dialect expanded the audience for humanist writings. Further, the invention of movable metal type in Germany around 1450 (see Chapter 20) facilitated the printing and widespread distribution of books. Italians enthusiastically embraced this new printing process. By 1464 Subiaco (near Rome) boasted a press, and by 1469 Venice had established one as well. Among the first books printed in Italy using this new press was Dante’s vernacular epic about Heaven, Purgatory, and Hell, *Divine Comedy*. The production of editions in Foligno (1472), Mantua (1472), Venice (1472), Naples (1477 and 1478–1479), and Milan (1478) testifies to the extensive popularity of Dante’s work.

The humanists also avidly acquired information in a wide range of subjects, including botany, geology, geography, optics, medicine, and engineering. Leonardo da Vinci’s phenomenal expertise in many fields—from art and architecture to geology, aerodynamics, hydraulics, botany, and military science, among others—still defines the modern notion of a “Renaissance man.” Humanism also fostered a belief in individual potential and encouraged individual achievement as well as civic responsibility. Whereas people in medieval society accorded great power to divine will in determining the events that affected lives, those in Renaissance Italy adopted a more secular stance. Humanists not only encouraged individual improvement but also rewarded excellence with fame and honor. Achieving and excelling through hard work became moral imperatives.

Fifteenth-century Italy witnessed constant fluctuations in its political and economic spheres, including shifting power relations among the numerous city-states and the rise of princely courts (see “Italian Princely Courts and Artistic Patronage,” page 569). *Condottieri* (military leaders) with large numbers of mercenary

MAP 21-1**Renaissance Florence.**

troops at their disposal played a major role in the ongoing struggle for power. Princely courts, such as those in Urbino and Mantua, emerged as cultural and artistic centers alongside the great art centers of the 14th century, especially the Republic of Florence. The association of humanism with education and culture appealed to accomplished individuals of high status, and humanism had its greatest impact among the elite and powerful, whether in the republics or the princely courts. These individuals were in the best position to commission art. As a result, humanist ideas permeate Italian Renaissance art. The intersection of art with humanist doctrines during the Renaissance is evident in the popularity of subjects selected from classical history or mythology; the increased concern with developing perspectival systems and depicting anatomy accurately; the revival of portraiture and other self-aggrandizing forms of patronage; and citizens' extensive participation in civic and religious art commissions.

FLORENCE

Because high-level patronage required significant accumulated wealth, the individuals and families who had managed to prosper economically, whether princes or merchants, came to the fore in artistic circles. The best-known Italian Renaissance art patrons were the Medici of the Republic of Florence (MAP 21-1). Early in the 15th century, the banker Giovanni de' Medici (ca. 1360–1429) had established the family fortune. His son Cosimo (1389–1464) expanded his family's dominance in financial circles, which led to considerable political power as well. This consolidation of power in a city that prided itself on its republicanism did not go unchallenged. In the early 1430s, a power struggle with other elite families led to the family's expulsion from Florence. In 1434 the Medici returned and used their tremendous wealth to commission art and architecture on a scale rarely seen.

The Medici were avid humanists. Cosimo began the first public library since the ancient world, and historians estimate that in some 30 years he and his descendants expended the equivalent of more than \$20 million for manuscripts and books. Scarcely a great architect, painter, sculptor, philosopher, or humanist scholar escaped the family's notice. Cosimo was the very model of the cultivated humanist. His grandson Lorenzo (1449–1492), called "the Magnificent," was a talented poet himself and gathered about him a galaxy of artists and gifted men in all fields, extending the library Cosimo had begun and revitalizing his academy for instructing artists. Lorenzo also participated in what some have called the Platonic Academy of Philosophy (most likely an informal reading group), and lavished funds (often the city's own) on splendid buildings, festivals, and pageants. The Medici were such grand patrons of art and learning that, to this day, a generous benefactor of the fine arts is often called "a Medici."

Sculpture

The earliest important artistic commission in 15th-century Florence was not, however, a Medici project, but a guild-sponsored competition in 1401 for a design for the east doors of the city's baptistery (FIG. 17-26). Artists and public alike considered this commission particularly prestigious because of the intended placement of the doors on the building's east side, facing Florence Cathedral (FIG. 19-18). Several traits associated with mature Renaissance art already characterized the baptistery competition: patronage as both a civic imperative and a form of self-promotion, the esteem accorded to individual artists, and the development of a new pictorial illusionism.

SACRIFICE OF ISAAC Andrea Pisano (ca. 1270–1348), unrelated to the two 13th-century Pisan sculptors Nicola and Giovanni discussed in Chapter 19, had designed the south doors of Florence's

baptistry between 1330 and 1335. The wool merchants' guild sponsored the 1401 competition for the second set of doors, requiring each entrant to submit a relief panel depicting the sacrifice of Isaac. This biblical event centers on God's order to Abraham that he sacrifice his son Isaac as a demonstration of Abraham's devotion to God (see "Jewish Subjects in Christian Art," Chapter 11, page 293). Just as Abraham is about to comply, an angel intervenes and stops him from plunging the knife into his son's throat. Because of the parallel between Abraham's willingness to sacrifice Isaac and God's sacrifice of his son Jesus to redeem mankind, the sacrifice of Isaac was often linked to the Crucifixion. Both refer to covenants, and given that the sacrament of baptism initiates the newborn or the convert into the possibilities of these covenants, Isaac's sacrifice was certainly appropriate for representation on a baptistry.

Contemporary events, however, may have been an important factor in the selection of this theme. In the late 1390s, Giangaleazzo Visconti, the first duke of Milan (r. 1378–1395), began a military campaign to take over the Italian peninsula. By 1401, when the cathedral's art directors initiated the baptistry competition, Visconti's troops had surrounded Florence, and its independence was in serious jeopardy. Despite dwindling water and food supplies, Florentine officials exhorted the public to defend the city's freedom. For example, the humanist chancellor Coluccio Salutati (1331–1406) urged his fellow citizens to adopt the republican ideal of civil and political liberty associated with ancient Rome and to identify themselves with its spirit. To be Florentine was to be Roman. Freedom was the distinguishing virtue of both republics. The story of Abraham and Isaac, with its

theme of sacrifice, paralleled the message city officials had conveyed to inhabitants. It is certainly plausible that the wool merchants, asserting both their preeminence among Florentine guilds and their civic duty, selected the subject with this in mind. The Florentines' reward for their faith and sacrifice came in 1402 when Visconti died suddenly, ending the invasion threat.

BRUNELLESCHI AND Ghiberti The jury selected seven semifinalists from among the many who entered the widely advertised competition for the baptistry commission. Only the panels of the two finalists, FILIPPO BRUNELLESCHI (1377–1446) and LORENZO Ghiberti (1378–1455), have survived. As instructed, both artists used the same French Gothic *quatrefoil* frames Andrea Pisano had used for the baptistry's south doors and depicted the same moment of the narrative—the angel's halting of the action. Brunelleschi's panel (FIG. 21-2) shows a sturdy and vigorous interpretation of the theme, with something of the emotional agitation of Giovanni Pisano's relief sculptures (FIG. 19-4). Abraham seems suddenly to have summoned the dreadful courage needed to kill his son at God's command. He lunges forward, robes flying, exposing Isaac's throat to the knife. Matching Abraham's energy, the saving angel darts in from the left, grabbing Abraham's arm to stop the killing. Brunelleschi's figures demonstrate his ability to observe carefully and represent faithfully all the elements in the biblical narrative.

Whereas Brunelleschi imbued his image with dramatic emotion, Ghiberti, the youngest artist in the competition, emphasized grace and smoothness. In Ghiberti's panel (FIG. 21-3), Abraham



1 in.

21-2 FILIPPO BRUNELLESCHI, *Sacrifice of Isaac*, competition panel for east doors of the baptistry, Florence, Italy, 1401–1402. Gilded bronze, 1' 9" × 1' 5½". Museo Nazionale del Bargello, Florence.

Brunelleschi's entry in the competition to create new bronze doors for the Florentine baptistry shows a frantic angel about to halt an emotional, lunging Abraham clothed in swirling Gothic robes.



1 in.

21-3 LORENZO Ghiberti, *Sacrifice of Isaac*, competition panel for east doors of the baptistry, Florence, Italy, 1401–1402. Gilded bronze, 1' 9" × 1' 5½". Museo Nazionale del Bargello, Florence.

In contrast to Brunelleschi's panel (FIG. 21-2), Ghiberti's entry in the baptistry competition features gracefully posed figures that recall classical statuary. Even Isaac's altar has a Roman acanthus frieze.

appears in a typically Gothic pose with outthrust hip (compare FIG. 18-26) and seems to contemplate the act he is about to perform, even as he draws his arm back to strike. The figure of Isaac, beautifully posed and rendered, recalls Greco-Roman statuary and could be regarded as the first classical nude since antiquity. (Compare, for example, the torsion of Isaac's body and the dramatic turn of his head with those of the Hellenistic statue of a Gaul plunging a sword into his own chest, FIG. 5-80). Unlike his medieval predecessors, Ghiberti revealed a genuine appreciation of the nude male form and a deep interest in how the muscular system and skeletal structure move the human body. Even the altar on which Isaac kneels displays Ghiberti's emulation of antique models. Decorating it are acanthus scrolls of a type that commonly adorned Roman temple friezes in Italy and throughout the former Roman Empire (for example, FIG. 10-32). These classical references reflect the increasing influence of humanism in the 15th century. Ghiberti's entry in the baptistery competition is also noteworthy for the artist's interest in spatial illusion. The rocky landscape seems to emerge from the blank panel toward the viewer, as does the strongly foreshortened angel. Brunelleschi's image, in contrast, emphasizes the planar orientation of the surface.

Ghiberti's training included both painting and metalwork. His careful treatment of the gilded bronze surfaces, with their sharply and accurately incised detail, proves his skill as a goldsmith. That Ghiberti cast his panel in only two pieces (thereby reducing the amount of bronze needed) no doubt impressed the selection committee. Brunelleschi's panel consists of several cast pieces. Thus, not only would Ghiberti's doors, as proposed, be lighter and more impervious to the elements, but they also represented a significant cost savings. The younger artist's submission clearly had much to recommend it, both stylistically and technically, and the judges awarded the commission to him. Ghiberti's pride in winning is evident in his description of the award, which also reveals the fame and glory increasingly accorded to individual achievement during the Early Renaissance:

To me was conceded the palm of the victory by all the experts and by all who had competed with me. To me the honor was conceded universally and with no exception. To all it seemed that I had at that time surpassed the others without exception, as was recognized by a great council and an investigation of learned men. . . . There were thirty-four judges from the city and the other surrounding countries. The testimonial of the victory was given in my favor by all.¹

OR SAN MICHELE A second major Florentine sculptural project of the early 1400s was the decoration of Or San Michele, an early-14th-century building prominently located on the main street connecting the Palazzo della Signoria (seat of the *signoria*, Florence's governing body) and the cathedral (MAP 21-1). At various times Or San Michele housed a church, a granary, and the headquarters of Florence's guilds. After construction of the building, city officials assigned each of the niches on the exterior to a specific guild for decoration with a sculpture of its patron saint. By 1406 the guilds had placed statues in only 5 of the 14 niches, so the officials issued a dictum requiring the guilds to comply with the original plan and fill their assigned niches. A few years later, Florence was once again under siege, this time by King Ladislaus (r. 1399–1414) of Naples. Ladislaus had marched north, occupied Rome and the Papal States (MAP 19-1) by 1409, and threatened to overrun Florence. As they had previously, Florentine officials urged citizens to stand firm and defend their city-state from tyranny. Once again,

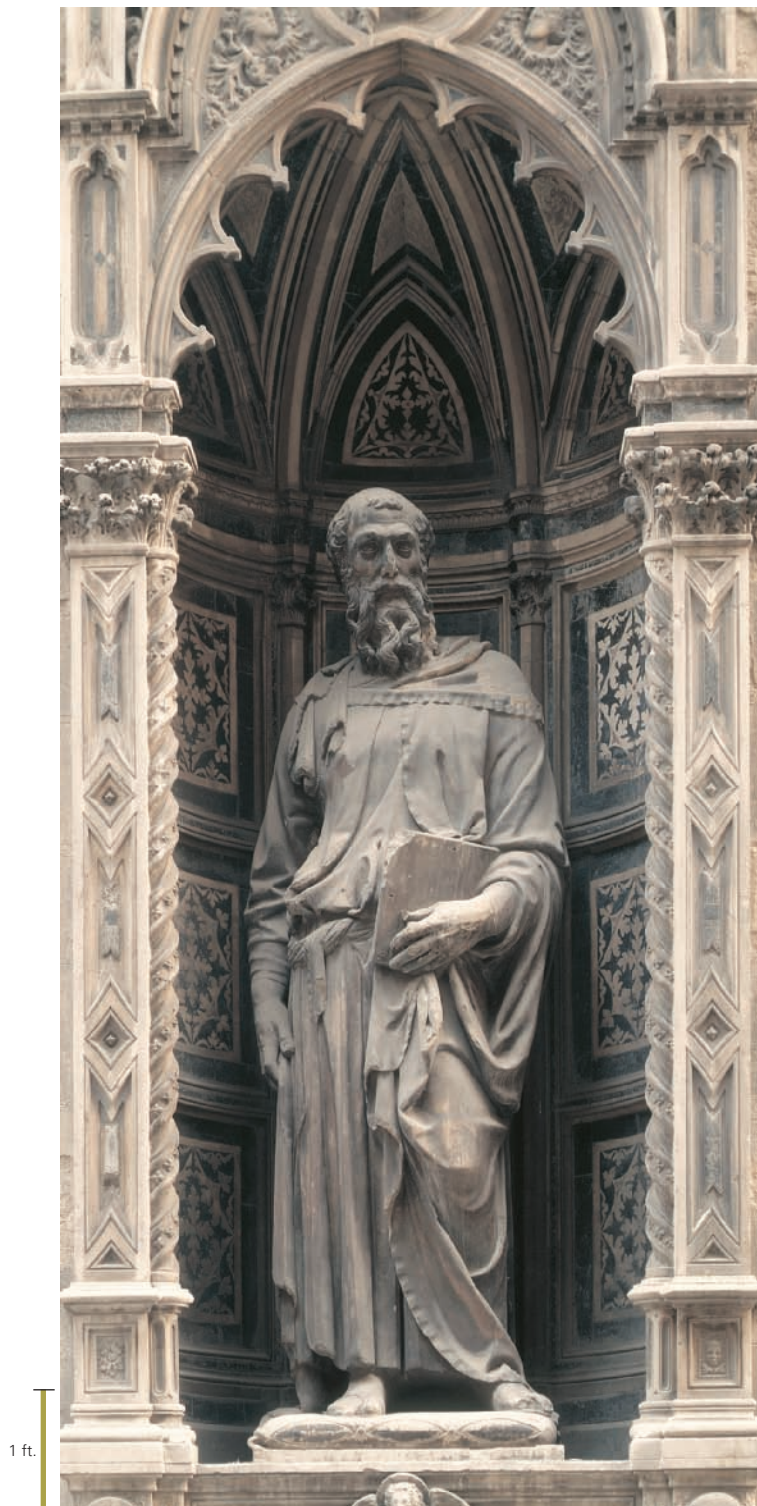


21-4 NANNI DI BANCO, *Four Crowned Saints, Or San Michele*, Florence, Italy, ca. 1410–1416. Marble, figures 6' high. Modern copy in exterior niche. Original sculpture in museum on second floor of Or San Michele, Florence.

Nanni's group representing the four martyred patron saints of Florence's sculptors' guild is an early example of Renaissance artists' attempt to liberate statuary from its architectural setting.

Florence escaped unscathed. Ladislaus, on the verge of military success in 1414, fortuitously died. The guilds may well have viewed this new threat as an opportunity to perform their civic duty by rallying their fellow Florentines while also promoting their own importance and position in Florentine society. By 1423 statues by Ghiberti and other leading Florentine artists filled the nine remaining niches of Or San Michele.

NANNI DI BANCO Among the niches filled during the Neapolitan king's attempted siege was that assigned to the Florentine guild



21-5 DONATELLO, *Saint Mark*, Or San Michele, Florence, Italy, ca. 1411–1413. Marble, 7' 9" high. Modern copy in exterior niche. Original sculpture in museum on second floor of Or San Michele, Florence.

In this statue carved for the guild of linen drapers, Donatello introduced the classical principle of *contrapposto* into Early Renaissance sculpture. The drapery falls naturally and moves with the body.

of stone- and woodworkers. They chose one of their members, NANNI DI BANCO (ca. 1380–1421), to create four life-size marble statues of the guild's martyred patron saints. These four Christian sculptors had defied an order from the Roman emperor Diocletian to carve a statue of a pagan deity. In response, the emperor ordered

them put to death. Because they placed their faith above all else, these saints were perfect role models for the 15th-century Florentines whom city leaders exhorted to stand fast in the face of the armies of Ladislaus.

Nanni's sculptural group, *Four Crowned Saints* (FIG. 21-4), is an early attempt to solve the problem of integrating figures and space on a monumental scale. The artist's positioning of the figures, which stand in a niche that is *in* but confers some separation from the architecture, furthered the gradual emergence of sculpture from its architectural setting. This process began with works such as the 13th-century jamb statues (FIG. 18-24) on the west front of Reims Cathedral. At Or San Michele, the niche's spatial recess permitted a new and dramatic possibility for the interrelationship of the figures. By placing them in a semicircle within their deep niche and relating them to one another by their postures and gestures, as well as by the arrangement of robes, Nanni arrived at a unified spatial composition. A remarkable psychological unity also connects these unyielding figures, whose bearing expresses the discipline and integrity necessary to face adversity. As the figure on the right speaks, pointing to his right, the two men opposite listen, and the one next to him looks out into space, pondering the meaning of the words and reinforcing the formal unity of the figural group with psychological cross-references.

In *Four Crowned Saints*, Nanni also displayed a deep respect for and close study of Roman portrait statues. The emotional intensity of the faces of the two inner saints owes much to the extraordinarily moving portrayals in stone of third-century Roman emperors (FIG. 10-68), and the bearded heads of the outer saints reveal a familiarity with second-century imperial portraiture (FIG. 10-59). Often, when Renaissance artists sought to portray individual personalities, they turned to ancient Roman models for inspiration, but they did not simply copy them. Rather, they strove to interpret or offer commentary on their classical models in the manner of humanist scholars dealing with classical texts.

DONATELLO Another sculptor who carved statues for Or San Michele's facade was Donato di Niccolò Bardi, or DONATELLO (ca. 1386–1466), who incorporated Greco-Roman sculptural principles in his *Saint Mark* (FIG. 21-5), executed for the guild of linen drapers. In this sculpture, Donatello took a fundamental step toward depicting motion in the human figure by recognizing the principle of weight shift, or *contrapposto*. Greek sculptors of the fifth century BCE were the first to grasp that the act of standing requires balancing the position and weight of the different parts of the human body, as they demonstrated in works such as the *Kritios Boy* (FIG. 5-34) and the *Doryphoros* (FIG. 5-40). In contrast to earlier sculptors, they recognized that the human body is not a rigid mass but a flexible structure that moves by continuously shifting its weight from one supporting leg to the other, its constituent parts moving in consonance. Donatello reintroduced this concept into Renaissance statuary. As the saint's body "moves," his garment "moves" with it, hanging and folding naturally from and around different body parts so that the viewer senses the figure as a clothed nude human, not a stone statue with arbitrarily incised drapery. Donatello's *Saint Mark* is the first Renaissance statue whose voluminous cloth garment (the pride of the Florentine guild that paid for the statue) does not conceal but accentuates the movement of the arms, legs, shoulders, and hips. This development further contributed to the sculpted figure's independence from its architectural setting. Saint Mark's stirring limbs, shifting weight, and mobile drapery suggest impending movement out of the niche.

21-6 DONATELLO, *Saint George, Or San Michele*, Florence, Italy, ca. 1410–1415. Marble, 6' 10" high. Museo Nazionale del Bargello, Florence.

Donatello's statue for the armorers' guild once had a bronze sword and helmet. The warrior saint stands defiantly, ready to spring from his niche to defend Florence, his sword pointed at the spectator.

SAINTE GEORGE For the Or San Michele niche of the armorers' and swordmakers' guild, Donatello made a statue of *Saint George* (FIG. 21-6). The saintly knight stands proudly with his shield in front of him. He once held a bronze sword in his right hand and wore a bronze helmet on his head, both fashioned by the sponsoring guild. The statue continues the Gothic tradition of depicting warrior saints on church facades, as seen in the statue of Saint Theodore (FIG. 18-18) on the south-transept portal of Chartres Cathedral, but here it has a civic role to play. Saint George stands in a defiant manner—ready to spring out of his niche to defend Florence against attack from another Visconti or Ladislaus, his sword jutting out threateningly at all passersby. The saint's body is taut, and Donatello has given him a face filled with nervous energy.

Directly below the statue's base is Donatello's marble relief representing *Saint George and the Dragon* (FIG. 21-7). Commissioned about two years after he installed the statue in its niche, the relief marks a turning point in Renaissance sculpture. Even the landscapes



1 ft.



1 ft.

21-8 DONATELLO, *Feast of Herod*, panel on the baptismal font of Siena Cathedral, Siena, Italy, 1423–1427. Gilded bronze, 1' 11 1/2" × 1' 11 1/2".

Donatello's *Feast of Herod* marked the advent of rationalized perspective space in Renaissance relief sculpture. Two arched courtyards of diminishing size open the space of the action well into the distance.

in the baptistery competition reliefs (FIGS. 21-2 and 21-3) are modeled forms seen against a blank background. In *Saint George and the Dragon*, Donatello took a painterly approach to representation, creating an atmospheric effect by using incised lines. It is impossible to talk about a background plane in this work. The landscape recedes into distant space. The depth of that space cannot be measured. The relief is a window onto an infinite vista.

FEAST OF HEROD Donatello's mastery of relief sculpture is also evident in *Feast of Herod* (FIG. 21-8), a bronze relief on the baptismal font in Siena Cathedral. Some of the figures, especially the dancing Salome (to the right), derive from classical reliefs, but nothing in Greco-

Roman art can match the illusionism of Donatello's rendition of this New Testament scene. In Donatello's relief, Salome has already delivered the severed head of John the Baptist, which the kneeling executioner offers to King Herod. The other figures recoil in horror in two groups. At the right, one man covers his face with his



1 in.

21-7 DONATELLO, *Saint George and the Dragon*, relief below the statue of Saint George (FIG. 21-6), Or San Michele, Florence, Italy, ca. 1417. Marble, 1' 3 1/4" × 3' 11 1/4". Museo Nazionale del Bargello, Florence.

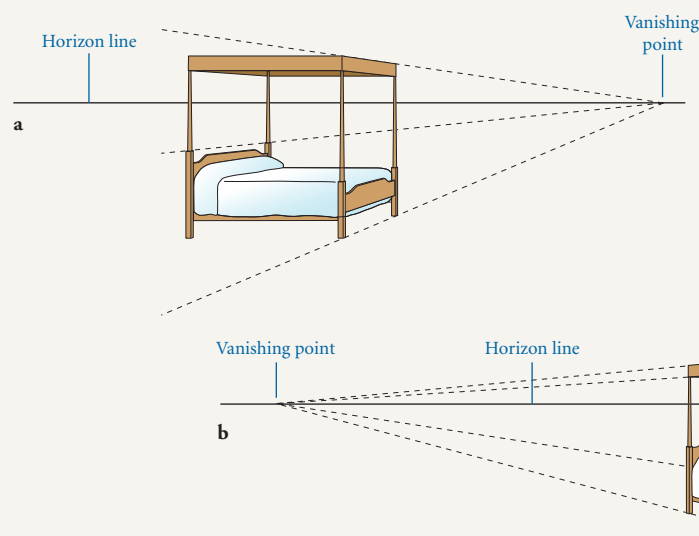
Donatello's relief marked a turning point in Renaissance sculpture. He took a painterly approach, creating an atmospheric effect by using incised lines. The depth of the background cannot be measured.

Renaissance Perspectival Systems

Scholars long have noted the Renaissance fascination with perspective. In essence, portraying perspective involves constructing a convincing illusion of space in two-dimensional imagery while unifying all objects within a single spatial system. Renaissance artists were not the first to focus on depicting illusionistic space. Both the Greeks and the Romans were well versed in perspectival rendering. Many frescoes of buildings and colonnades (for example, FIG. 10-19, right) using a Renaissance-like system of converging lines survive on the walls of Roman houses. However, the Renaissance rediscovery of and interest in perspective contrasted sharply with the portrayal of space during the Middle Ages, when spiritual concerns superseded the desire to depict objects illusionistically.

Renaissance perspectival systems included both linear perspective and atmospheric perspective. Developed by Filippo Brunelleschi, *linear perspective* allows artists to determine mathematically the relative size of rendered objects to correlate them with the visual recession into space. Linear perspective can be either one-point or two-point.

- In one-point linear perspective (FIG. 21-9a), the artist first must identify a horizontal line that marks, in the image, the horizon in the distance (hence the term *horizon line*). The artist then selects a *vanishing point* on that horizon line (often located at the exact center of the line). By drawing *orthogonals* (diagonal lines) from the edges of the picture to the vanishing point, the artist creates a



21-9 One-point (a) and two-point (b) linear perspective.

Linear perspective reflected the emergence of modern science itself. With its mathematical certitude, perspective also elevated the stature of painting by making pictures rational and measurable.

structural grid that organizes the image and determines the size of objects within the image's illusionistic space. Among the works that provide clear examples of one-point linear perspective are Masaccio's *Holy Trinity* (FIG. 21-20), Leonardo da Vinci's *Last Supper* (FIG. 22-4), and Raphael's *School of Athens* (FIG. 22-9). All of these are representations of figures in architectural settings, but linear perspective can also be applied to single figures. An especially dramatic example of the use of one-point perspective to depict a body receding into the background is Andrea Mantegna's *Foreshortened Christ* (FIG. 21-49).

- Two-point linear perspective (FIG. 21-9b) also involves the establishment of a horizon line. Rather than using a single vanishing point along this horizon line, the artist identifies two of them. The orthogonals that result from drawing lines from an object to each of the vanishing points create, as in one-point perspective, a grid that indicates the relative size of objects receding into space. An example of two-point perspective is Titian's *Madonna of the Pesaro Family* (FIG. 22-38).
- Unlike linear perspective, which relies on a structured mathematical system, *atmospheric perspective* involves optical phenomena. Artists using atmospheric (sometimes called *aerial*) perspective exploit the principle that the farther back the object is in space, the blurrier, less detailed, and bluer it appears. Further, color saturation and value contrast diminish as the image recedes into the distance. Leonardo da Vinci used atmospheric perspective to great effect, as seen in works such as *Madonna of the Rocks* (FIG. 22-2) and *Mona Lisa* (FIG. 22-5).

These two methods of creating the illusion of space in pictures are not exclusive, and Renaissance artists often used both linear and atmospheric perspective in the same work to heighten the sensation of three-dimensional space, as in Raphael's *Marriage of the Virgin* (FIG. 22-7).

hand. At the left, Herod and two terrified children shrink back in dismay. The psychic explosion drives the human elements apart, leaving a gap across which the emotional electricity crackles. This masterful stagecraft obscures another drama Donatello was playing out on the stage itself. His *Feast of Herod* marks the advent of rationalized perspective space, long prepared for in 14th-century Italian art. As in *Saint George and the Dragon* (FIG. 21-7), Donatello opened the space of the action well into the distance. But here he employed the new mathematically based science of linear perspective to depict two arched courtyards and the groups of attendants in the background.

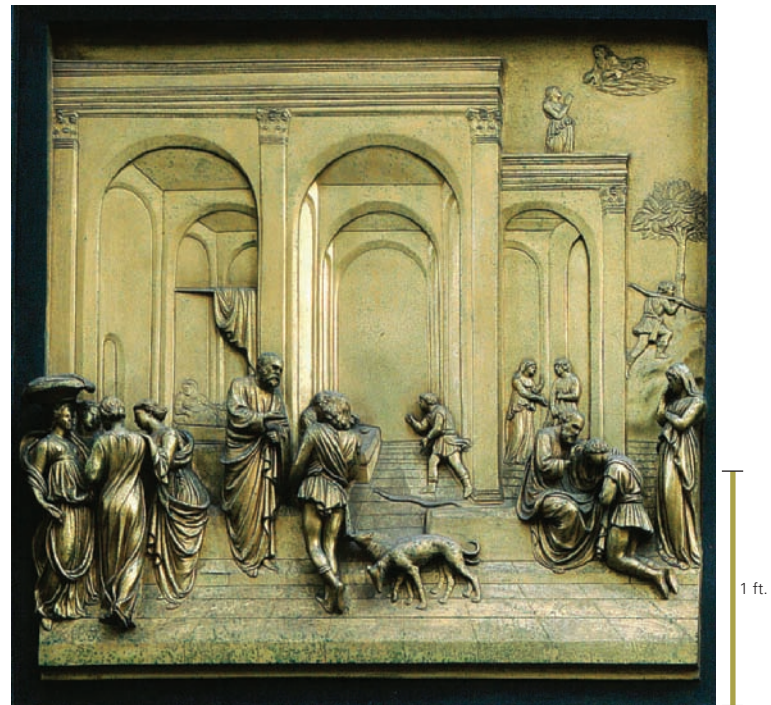
RENAISSANCE PERSPECTIVE In the 14th century, Italian artists, such as Duccio and the Lorenzetti brothers, had used several devices to indicate distance, but with the development of *linear perspective* (FIG. 21-9), Early Renaissance artists acquired a way to make the illusion of distance certain and consistent (see "Renaissance Perspectival Systems," above). In effect, they conceived the picture plane as a transparent window through which the observer looks to see the constructed pictorial world. This discovery was enormously important, for it made possible what has been called the "rationalization of sight." It brought all random and infinitely various visual



21-10 LORENZO Ghiberti, east doors (*Gates of Paradise*), baptistery, Florence, Italy, 1425–1452. Gilded bronze, 17' high. Modern copy, ca. 1980. Original panels in Museo dell'Opera del Duomo, Florence.

In Ghiberti's later doors for the Florentine baptistery, the sculptor abandoned the Gothic quatrefoil frames for the biblical scenes (compare FIG. 21-3) and employed painterly illusionistic devices.

sensations under a simple rule that could be expressed mathematically. Indeed, Renaissance artists' interest in perspective reflects the emergence at this time of modern science itself. Of course, 15th-century artists were not primarily scientists. They simply found perspective an effective way to order and clarify their compositions. Nonetheless, there can be little doubt that perspective, with its new mathematical certitude, conferred a kind of aesthetic legitimacy on painting by making the picture measurable and exact. According to Plato, measure is the basis of beauty, and Classical Greek art reflects this belief (see "Polykleitos," Chapter 5, page 124). In the Renaissance, when humanists rediscovered Plato and eagerly read his works, artists once again exalted the principle of measure as the foundation of the beautiful in the fine arts. The projection of measurable objects on flat surfaces influenced the character of Renais-



21-11 LORENZO Ghiberti, *Isaac and His Sons* (detail of FIG. 21-10), east doors (*Gates of Paradise*), baptistery, Florence, Italy, 1425–1452. Gilded bronze, 2' 7½" × 2' 7½". Museo dell'Opera del Duomo, Florence.

In this relief, Ghiberti employed linear perspective to create the illusion of distance, but he also used sculptural aerial perspective, with forms appearing less distinct the deeper they are in space.

sance paintings and made possible scale drawings, maps, charts, graphs, and diagrams—means of exact representation that laid the foundation for modern science and technology. Mathematical truth and formal beauty united in the minds of Renaissance artists.

GATES OF PARADISE Ghiberti was among the first Italian artists in the 15th century to embrace a unified system for representing space. His enthusiasm for perspectival illusion is particularly evident in the famous east doors (FIG. 21-10) that in 1425 church officials commissioned him to make for the Florentine baptistery (FIG. 17-26). Michelangelo later declared these as "so beautiful that they would do well for the gates of Paradise."² Three sets of doors provide access to the building. Andrea Pisano created the first set, on the south side, between 1330 and 1335. Ghiberti made his first pair of doors (1403–1424), the result of the competition, for the east portal, but church officials moved those doors to the north entrance so that his second pair of doors (1425–1452) could be placed on the east side. In the *Gates of Paradise*, Ghiberti abandoned the quatrefoil pattern that frames the reliefs on the south and north doors and reduced the number of panels from 28 to 10. Each panel contains a relief set in plain moldings and depicts a scene from the Old Testament. The complete gilding of the reliefs creates an effect of great splendor and elegance.

The individual panels, such as *Isaac and His Sons* (FIG. 21-11), clearly recall painting techniques in their depiction of space as well as in their treatment of the narrative. Some exemplify more fully than painting many of the principles the architect and theorist Leon Battista Alberti formulated in his 1435 treatise, *On Painting*. In his relief, Ghiberti created the illusion of space partly through the use of pictorial perspective and partly by sculptural means. He represented buildings according to a painter's one-point perspective construction, but the figures (in the bottom section of the relief, which

actually projects slightly toward the viewer) appear almost fully in the round, some of their heads standing completely free. As the eye progresses upward, the relief increasingly flattens, concluding with the architecture in the background, which Ghiberti depicted in barely raised lines. In this manner, the artist created a sort of sculptor's aerial perspective, with forms appearing less distinct the deeper they are in space. Ghiberti described the east doors as follows:

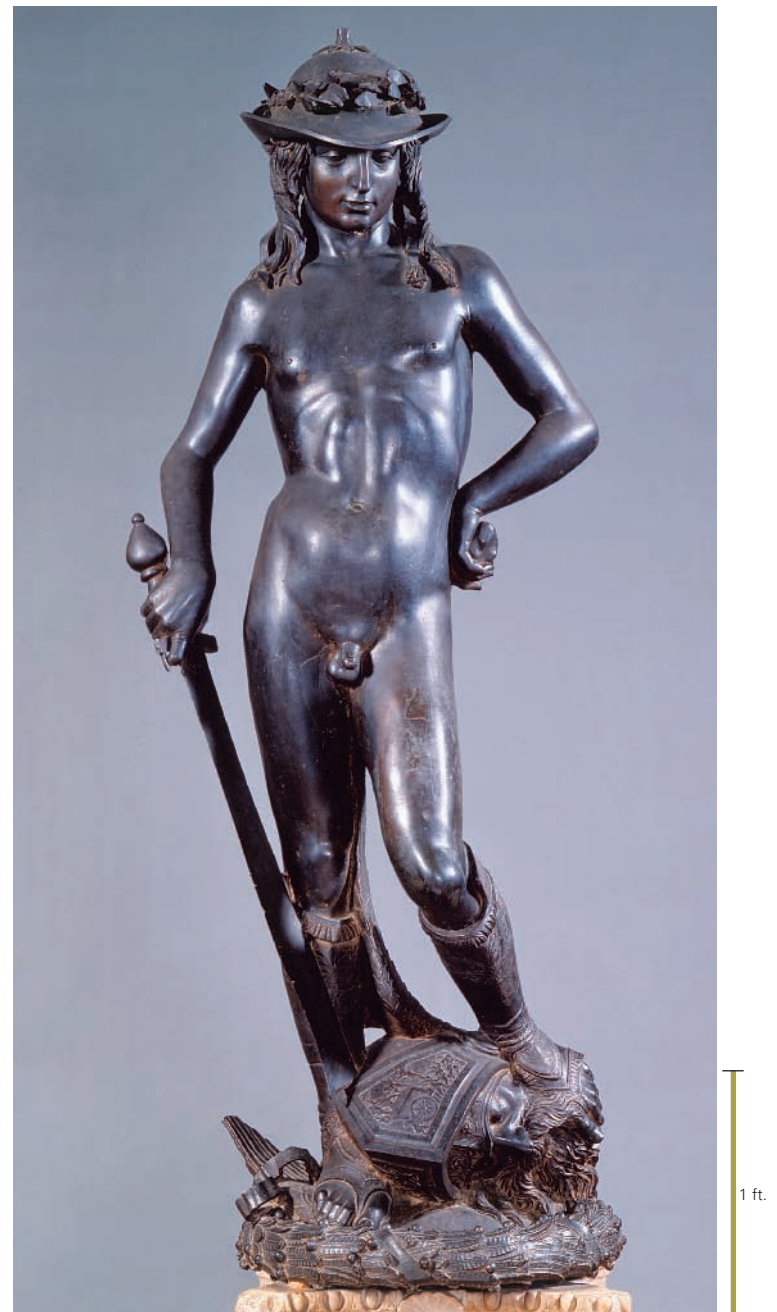
I strove to imitate nature as closely as I could, and with all the perspective I could produce [to have] excellent compositions rich with many figures. In some scenes I placed about a hundred figures, in some less, and in some more. . . . There were ten stories, all [sunk] in frames because the eye from a distance measures and interprets the scenes in such a way that they appear round. The scenes are in the lowest relief and the figures are seen in the planes; those that are near appear large, those in the distance small, as they do in reality. I executed this entire work with these principles.³

In these panels, Ghiberti achieved a greater sense of depth than had previously seemed possible in a relief. His principal figures do not occupy the architectural space he created for them. Rather, the artist arranged them along a parallel plane in front of the grandiose architecture. (According to Leon Battista Alberti, in his *On the Art of Building*, the grandeur of the architecture reflects the dignity of the events shown in the foreground.) Ghiberti's figure style mixes a Gothic patterning of rhythmic line, classical poses and motifs, and a new realism in characterization, movement, and surface detail. Ghiberti retained the medieval narrative method of presenting several episodes within a single frame. In *Isaac and His Sons*, the women in the left foreground attend the birth of Esau and Jacob in the left background. In the central foreground, Isaac sends Esau and his dogs to hunt game. In the right foreground, Isaac blesses the kneeling Jacob as Rebecca looks on. Yet viewers experience little confusion because of Ghiberti's careful and subtle placement of each scene. The figures, in varying degrees of projection, gracefully twist and turn, appearing to occupy and move through a convincing stage space, which Ghiberti deepened by showing some figures from behind. The classicism derives from the artist's close study of ancient art. Ghiberti admired and collected classical sculpture, bronzes, and coins. Their influence appears throughout the panel, particularly in the figure of Rebecca, which Ghiberti based on a popular Greco-Roman statuary type. The emerging practice of collecting classical art in the 15th century had much to do with the incorporation of classical motifs and the emulation of classical style in Renaissance art.

DONATELLO, DAVID The use of perspectival systems in relief sculpture and painting represents only one aspect of the Renaissance revival of classical principles and values in the arts. Another was the revival of the freestanding nude statue. The first Renaissance sculptor to portray the nude male figure in statuary was Donatello. The date of his bronze *David* (FIG. 21-12) is unknown, but he probably cast it sometime between 1440 and 1460 for display in the courtyard (FIG. 21-37) of the Medici palace in Florence. In the Middle Ages, the clergy regarded nude statues as both indecent and idolatrous, and nudity in general appeared only rarely in art—and then only in biblical or moralizing contexts, such as the story of Adam and Eve or depictions of sinners in Hell. With *David*, Donatello reinvented the classical nude. His subject, however, was not a pagan god, hero, or athlete but the youthful biblical slayer of Goliath who had become the symbol of the independent Florentine republic—and therefore an ideal choice of subject for the residence of the most powerful family in Florence. The Medici were aware of Donatello's earlier *David* in the Palazzo della Signoria, Florence's town hall. The artist had pro-

duced it during the threat of invasion by King Ladislaus. Their selection of the same subject suggests that the Medici identified themselves with Florence or, at the very least, saw themselves as responsible for Florence's prosperity and freedom. The invoking of classical poses and formats also appealed to the humanist Medici. Donatello's *David* possesses both the relaxed classical contrapposto stance and the proportions and sensuous beauty of the gods (FIG. 5-63) of Praxiteles, a famous Greek sculptor. These qualities were, not surprisingly, absent from medieval figures.

VERROCCHIO Another *David* (FIG. 21-13), by ANDREA DEL VERROCCHIO (1435–1488), one of the most important sculptors during the second half of the century, reaffirms the Medici family's identification with Florence. A painter as well as a sculptor, Verrocchio



21-12 DONATELLO, *David*, ca. 1440–1460. Bronze, 5' 2 ¼" high. Museo Nazionale del Bargello, Florence.

Donatello's *David* possesses both the relaxed contrapposto and the sensuous beauty of nude Greek gods (FIG. 5-60). The revival of classical statuary style appealed to the sculptor's patrons, the Medici.



21-13 ANDREA DEL VERROCCHIO, *David*, ca. 1465–1470. Bronze, 4' 1 ½" high. Museo Nazionale del Bargello, Florence.

Verrocchio's *David*, also made for the Medici, displays a brash confidence. The statue's narrative realism contrasts strongly with the quiet classicism of Donatello's *David* (FIG. 21-12).

directed a flourishing *bottega* (studio-shop) in Florence that attracted many students, among them Leonardo da Vinci. Verrocchio, like Donatello, also had a broad repertoire. His *David* contrasts strongly in its narrative realism with the quiet classicism of Donatello's *David*. Verrocchio's *David* is a sturdy, wiry, young apprentice clad in a leathern doublet who stands with a jaunty pride. As in Donatello's version, Goliath's head lies at David's feet. He poses like a hunter with his kill. The easy balance of the weight and the lithe, still thinly adolescent musculature, with prominent veins, show how closely Verrocchio read the biblical text and how clearly he knew the psychology of brash young men. The Medici eventually sold Verrocchio's bronze *David* to the Florentine government for placement in the Palazzo della Signoria. After the expulsion of the Medici from Florence, officials appropriated Donatello's *David* for civic use and moved it to the city hall as well.

POLLAIUOLO The Renaissance interest in classical culture naturally also led to the revival of Greco-Roman mythological themes in art. The Medici were leading patrons in this sphere as well. Around 1470, ANTONIO DEL POLLAIUOLO (ca. 1431–1498), who was also important as a painter and engraver (FIG. 21-29), received a Medici com-



21-14 ANTONIO DEL POLLAIUOLO, *Hercules and Antaeus*, ca. 1470–1475. Bronze, 1' 6" high with base. Museo Nazionale del Bargello, Florence.

The Renaissance interest in classical culture led to the revival of Greco-Roman mythological themes in art. *Hercules and Antaeus* exhibits the stress and strain of the human figure in violent action.

mission to produce a small-scale sculpture, *Hercules and Antaeus* (FIG. 21-14). The subject matter, derived from Greek mythology, and the emphasis on human anatomy reflect the Medici preference for humanist imagery. Even more specifically, the state seal of Florence had featured Hercules since the end of the 13th century. As commissions such as the two *David* sculptures demonstrate, the Medici clearly embraced every opportunity to associate themselves with the glory of the Florentine Republic, surely claiming much of the credit for it.

In contrast to the placid presentation of Donatello's *David* (FIG. 21-12), Pollaiuolo's *Hercules and Antaeus* exhibits the stress and strain of the human figure in violent action. This sculpture departs dramatically from the convention of frontality that had dominated statuary during the Middle Ages and the Early Renaissance. Only 18 inches high, *Hercules and Antaeus* embodies the ferocity and vitality of elemental physical conflict. The group illustrates the wrestling match between Antaeus (Antaios), a giant and son of the goddess Earth, and Hercules (Herakles), a theme the Greek painter Euphronios had represented on an ancient Greek vase (FIG. 5-23) 2,000 years before. According to the Greek myth, each time Hercules threw him down, Antaeus sprang up again, his strength renewed by

contact with the earth. Finally, Hercules held him aloft so that he could not touch the ground, and strangled him around the waist. Pollaiuolo strove to convey the final excruciating moments of the struggle—the straining and cracking of sinews, the clenched teeth of Hercules, and the kicking and screaming of Antaeus. The figures intertwine and interlock as they fight, and the flickering reflections of light on the dark gouged bronze surface contribute to a fluid play of planes and the effect of agitated movement.

GATTAMELATA Given the increased emphasis on individual achievement and recognition that humanism fostered, it is not surprising that portraiture enjoyed a revival in the 15th century. Commemorative portraits of the deceased were common, and patrons also commissioned portraits of themselves. In 1443, Donatello left Florence for northern Italy to accept a rewarding commission from the Republic of Venice to create a commemorative monument in honor of the recently deceased Venetian condottiere Erasmo da Narni (1370–1443), nicknamed Gattamelata (“honeyed cat,” a wordplay on his mother’s name, Melania Gattelli). Although Gattamelata’s family paid for the general’s portrait (FIG. 21-15), the Venetian senate formally authorized its erection in the square in front of the church of Sant’Antonio in Padua, the condottiere’s birthplace. Equestrian statues occasionally had been set up in Italy in the late Middle Ages, but Donatello’s *Gattamelata* was the first to rival the grandeur of the mounted portraits of antiquity, such as that of Marcus Aurelius (FIG. 10-59), which the artist must have

seen in Rome. Donatello’s contemporaries, one of whom described Gattamelata as sitting “there with great magnificence like a triumphant Caesar,”⁴ recognized this reference to antiquity. The statue stands on a lofty elliptical base, set apart from its surroundings, and almost celebrates sculpture’s liberation from architecture. Massive and majestic, the great horse bears the armored general easily, for, unlike the sculptor of Marcus Aurelius, Donatello did not represent the Venetian commander as superhuman and more than life-size. Gattamelata dominates his mighty steed by force of character rather than sheer size. The Italian rider, his face set in a mask of dauntless resolution and unshakable will, is the very portrait of the Renaissance individualist. Such a man—intelligent, courageous, ambitious, and frequently of humble origin—could, by his own resourcefulness and on his own merits, rise to a commanding position in the world. Together, man and horse convey an overwhelming image of irresistible strength and unlimited power—an impression Donatello reinforced visually by placing the left forehoof of the horse on an orb, reviving a venerable ancient symbol for hegemony over the earth (compare FIG. 16-12). The imperial imagery is all the more remarkable because Erasmo da Narni was not a head of state.

BARTOLOMMEO COLLEONI Verrocchio also received a commission to make an equestrian statue of a Venetian condottiere, Bartolommeo Colleoni (1400–1475). His portrait (FIG. 21-16) provides a counterpoint to Donatello’s statue. Eager to garner the same fame



21-15 DONATELLO, *Gattamelata* (equestrian statue of Erasmo da Narni), Piazza del Santo, Padua, Italy, ca. 1445–1453. Bronze, 12' 2" high.

Donatello based his giant portrait of a Venetian general on equestrian statues of ancient Roman emperors (FIG. 10-59). Together, man and horse convey an overwhelming image of irresistible strength.



21-16 ANDREA DEL VERROCCHIO, *Bartolommeo Colleoni* (equestrian statue), Campo dei Santi Giovanni e Paolo, Venice, Italy, ca. 1481–1496. Bronze, 13' high.

Eager to compete with Donatello’s *Gattamelata* (FIG. 21-15), Colleoni provided the funds for his own equestrian statue in his will. The statue stands on a pedestal even taller than Gattamelata’s.



21-17 GENTILE DA FABRIANO, *Adoration of the Magi*, altarpiece from Strozzi Chapel, Santa Trinità, Florence, Italy, 1423. Tempera on wood, 9' 11" × 9' 3". Galleria degli Uffizi, Florence.

Gentile was the leading Florentine painter working in the International Style, but he successfully blended naturalistic details with Late Gothic splendor in color, costume, and framing ornament.

the *Gattamelata* portrait achieved, Colleoni provided funds in his will for his own statue. Since both Donatello and Verrocchio executed their statues after the deaths of their subjects, neither artist knew personally the individual he portrayed. The result is a fascinating difference of interpretation (like that between their two *Davids*) as to the demeanor of a professional captain of armies. Verrocchio placed the statue of the bold equestrian general on a pedestal even higher than that Donatello used for *Gattamelata* so that viewers could see the dominating, aggressive figure from all major approaches to the piazza (the Campo dei Santi Giovanni e Paolo). In contrast to the near repose of the *Gattamelata* steed and rider, the *Colleoni* horse moves in a prancing stride, arching and curving its powerful neck, while the commander seems suddenly to shift his whole weight to the stirrups and rise from the saddle with a violent twist of his body. The artist depicted the figures with an exaggerated tautness—the animal's bulging muscles and the man's fiercely erect and rigid body together convey brute strength. In *Gattamelata*, Donatello created a portrait of grim sagacity. Verroc-

chio's *Bartolommeo Colleoni* is a portrait of merciless might. Niccolò Machiavelli wrote in his famous political treatise of 1513, *The Prince*, that the successful ruler must combine the traits of the lion and the fox. Donatello's *Gattamelata* approaches the latter, whereas Verrocchio's *Bartolommeo Colleoni* tilts toward the former.

Painting

In 15th-century Italy, humanism and the celebration of classical artistic values also characterized panel and mural painting. The new Renaissance style did not, however, immediately displace all vestiges of the Late Gothic style. In particular, the International Style, the dominant mode in painting around 1400 (see Chapter 19) persisted well into the century.

GENTILE DA FABRIANO The leading Florentine master of the International Style was GENTILE DA FABRIANO (ca. 1370–1427), who in 1423 painted *Adoration of the Magi* (FIG. 21-17) as the

Cennino Cennini on Imitation and Emulation in Renaissance Art

The familiar premium that contemporary Western society places on artistic originality is actually a fairly recent phenomenon. Among the concepts Renaissance artists most valued were imitation and emulation. Although many Renaissance artists did develop unique, recognizable styles, convention, in terms of both subject matter and representational practices, predominated. In a review of Italian Renaissance art, certain themes, motifs, and compositions surface with great regularity, and the traditional training practices reveal the importance of imitation and emulation to aspiring Renaissance artists.

■ **Imitation** Imitation was the starting point in a young artist's training (see "Artistic Training in Renaissance Italy," Chapter 19, page 510). Italian Renaissance artists believed that the best way to learn was to copy the works of masters. Accordingly, much of an apprentice's training consisted of copying exemplary artworks. Leonardo da Vinci filled his sketchbooks with drawings of well-known sculptures and frescoes, and Michelangelo spent days sketching artworks in churches around Florence and Rome.

■ **Emulation** The next step was emulation, which involved modeling one's art after that of another artist. Although imitation still provided the foundation for this practice, an artist used features of another's art only as a springboard for improvements or innovations. Thus, developing artists went beyond previous artists and attempted to prove their own competence and skill by improving on established and recognized masters. Comparison and a degree of competition were integral to emulation. To evaluate the "improved" artwork, viewers had to know the original "model."

Renaissance artists believed that developing artists would ultimately arrive at their own unique style through this process of imitation and emulation. Cennino Cennini (ca. 1370–1440) explained the value of this training procedure in a book he published in 1400, *Il Libro dell'Arte* (*The Artist's Handbook*), which served as a practical guide to producing art:

Having first practiced drawing for a while, . . . take pains and pleasure in constantly copying the best things which you can find done by the hand of great masters. And if you are in a place where many good masters have been, so much the better for you. But I give you this advice: take care to select the best one every time, and the one who has the greatest reputation. And, as you go on from day to day, it will be against nature if you do not get some grasp of his style and of his spirit. For if you undertake to copy after one master today and after another one tomorrow, you will not acquire the style of either one or the other, and you will inevitably, through enthusiasm, become capricious, because each style will be distracting your mind. You will try to work in this man's way today, and in the other's tomorrow, and so you will not get either of them right. If you follow the course of one man through constant practice, your intelligence would have to be crude indeed for you not to get some nourishment from it. Then you will find, if nature has granted you any imagination at all, that you will eventually acquire a style individual to yourself, and it cannot help being good; because your hand and your mind, being always accustomed to gather flowers, would ill know how to pluck thorns.*

* Translated by Daniel V. Thompson Jr., *Cennino Cennini, The Artist's Handbook (Il Libro dell'Arte)*, (New York: Dover Publications, 1960; reprint of 1933 ed.), 14–15.

altarpiece for the family chapel of Palla Strozzi (1372–1462) in the church of Santa Trinità in Florence. At the beginning of the 15th century, the Strozzi family was the wealthiest in Florence. The altarpiece, with its elaborate gilded Gothic frame, is testimony to Strozzi's lavish tastes. So too is the painting itself, with its gorgeous surface and sumptuously costumed kings, courtiers, captains, and retainers accompanied by a menagerie of exotic animals. Gentile portrayed all these elements in a rainbow of color with extensive use of gold. The painting presents all the pomp and ceremony of chivalric etiquette in a scene that sanctifies the aristocracy in the presence of the Madonna and Child. Although the style is fundamentally Late Gothic, Gentile inserted striking naturalistic details. For example, the artist depicted animals from a variety of angles and foreshortened the forms convincingly, most notably the horse at the far right seen in a three-quarter rear view. Gentile did the same with human figures, such as the kneeling man removing the spurs from the standing *magus* in the center foreground. In the left panel of the predella, Gentile painted what may have been the very first nighttime Nativity with the central light source—the radiant Christ Child—introduced into the picture itself. Although predominantly conservative, Gentile demonstrated that he was not oblivious to contemporary experimental trends and that he could blend naturalistic and

inventive elements skillfully and subtly into a traditional composition without sacrificing Late Gothic splendor in color, costume, and framing ornament.

MASACCIO The artist who epitomizes the innovative spirit of early-15th-century Florentine painting was Tommaso di ser Giovanni di Mone Cassai, known as MASACCIO (1401–1428). Although his presumed teacher, Masolino da Panicale (see "Italian Artists' Names," Chapter 19, page 498), had worked in the International Style, Masaccio broke sharply from the normal practice of imitating his master's style (see "Imitation and Emulation in Renaissance Italy," above). He moved suddenly, within the short span of six years, into unexplored territory. Most art historians recognize no other painter in history to have contributed so much to the development of a new style in so short a time as Masaccio, whose untimely death at age 27 cut short his brilliant career. Masaccio was the artistic descendant of Giotto (see Chapter 19), whose calm, monumental style he revolutionized with a whole new repertoire of representational devices that generations of Renaissance painters later studied and developed. Masaccio also knew and understood the innovations of his great contemporaries, Ghiberti, Brunelleschi, and Donatello, and he introduced new possibilities for both form and content.



21-18 MASACCIO, *Tribute Money*, Brancacci Chapel, Santa Maria del Carmine, Florence, Italy, ca. 1424–1427. Fresco, 8' 4 $\frac{1}{8}$ " \times 19' 7 $\frac{1}{8}$ ".

Masaccio's figures recall Giotto's in their simple grandeur, but they convey a greater psychological and physical credibility. He modeled his figures with light coming from a source outside the picture.

BRANCACCI CHAPEL The frescoes Masaccio painted in the Brancacci family chapel of Santa Maria del Carmine in Florence provide excellent examples of his innovations. In *Tribute Money* (FIG. 21-18), painted shortly before his death, Masaccio depicted a seldom-represented narrative from the Gospel of Matthew (17:24–27). As the tax collector confronts Christ at the entrance to the Roman town of Capernaum, Christ directs Saint Peter to the shore of Lake Galilee. There, as Christ foresaw, Peter finds the tribute coin in the mouth of a fish and returns to pay the tax. Art historians have debated why Felice Brancacci (1382–1447), the chapel's patron, selected this obscure biblical narrative. Some scholars have suggested that *Tribute Money*, in which Christ condones taxation, served as a commentary on the income tax the Florentine republic was considering implementing at the time. However, Brancacci's considerable wealth makes it unlikely he would have supported a tax on income. Moreover, this fresco's placement in a private family chapel meant that the public had only limited access. Therefore, because this fresco lacked the general audience enjoyed by, for example, the Or San Michele niche sculptures, it seems ill-suited for public statements.

Whatever the reason for the choice of subject, Masaccio decided to divide the story into three episodes within the fresco. In the center, Christ, surrounded by his disciples, tells Saint Peter to retrieve the coin from the fish, while the tax collector stands in the foreground, his back to spectators and hand extended, awaiting payment. At the left, in the middle distance, Saint Peter extracts the coin from the fish's mouth, and, at the right, he thrusts the coin into the tax collector's hand. Masaccio's figures recall Giotto's in their simple grandeur, but they convey a greater psychological and physical credibility. Masaccio created the bulk of the figures by modeling not with a flat, neutral light lacking an identifiable source but with a light coming from a specific source outside the picture. The light comes from the right and strikes the figures at an angle, illuminating the parts of the solids that obstruct its path and leaving the rest in shadow, producing the illusion of deep sculptural relief. Between the extremes of light and dark, the light appears as a constantly active but fluctuating force highlighting the

scene in varying degrees, almost a tangible substance independent of the figures. In his frescoes, Giotto used light only to model the masses. In Masaccio's works, light has its own nature, and the masses are visible only because of its direction and intensity. The viewer can imagine the light as playing over forms—revealing some and concealing others, as the artist directs it. The individual figures in *Tribute Money* are solemn and weighty, but they also move freely and reveal body structure, as do Donatello's statues. Masaccio's representations adeptly suggest bones, muscles, and the pressures and tensions of joints. Each figure conveys a maximum of contained energy. *Tribute Money* helps the viewer understand Giorgio Vasari's comment: "[T]he works made before his [Masaccio's] day can be said to be painted, while his are living, real, and natural."⁵

Masaccio's arrangement of the figures is equally inventive. They do not appear as a stiff screen in the foreground. Instead, the artist grouped them in circular depth around Christ, and he placed the whole group in a spacious landscape, rather than in the confined stage space of earlier frescoes. The group itself generates the foreground space that the architecture on the right amplifies. Masaccio depicted the building in one-point perspective, locating the vanishing point, where all the orthogonals converge, at Christ's head. Atmospheric perspective—the diminishing of light and the blurring of outlines as the distance increases (see "Renaissance Perspectival Systems," page 547)—unites the foreground with the background. Although ancient Roman painters used atmospheric perspective (FIG. 10-20), medieval artists had abandoned it. Thus, it virtually disappeared from art until Masaccio and his contemporaries rediscovered it. They came to realize that the light and air interposed between viewers and what they see are two parts of the visual experience called "distance."

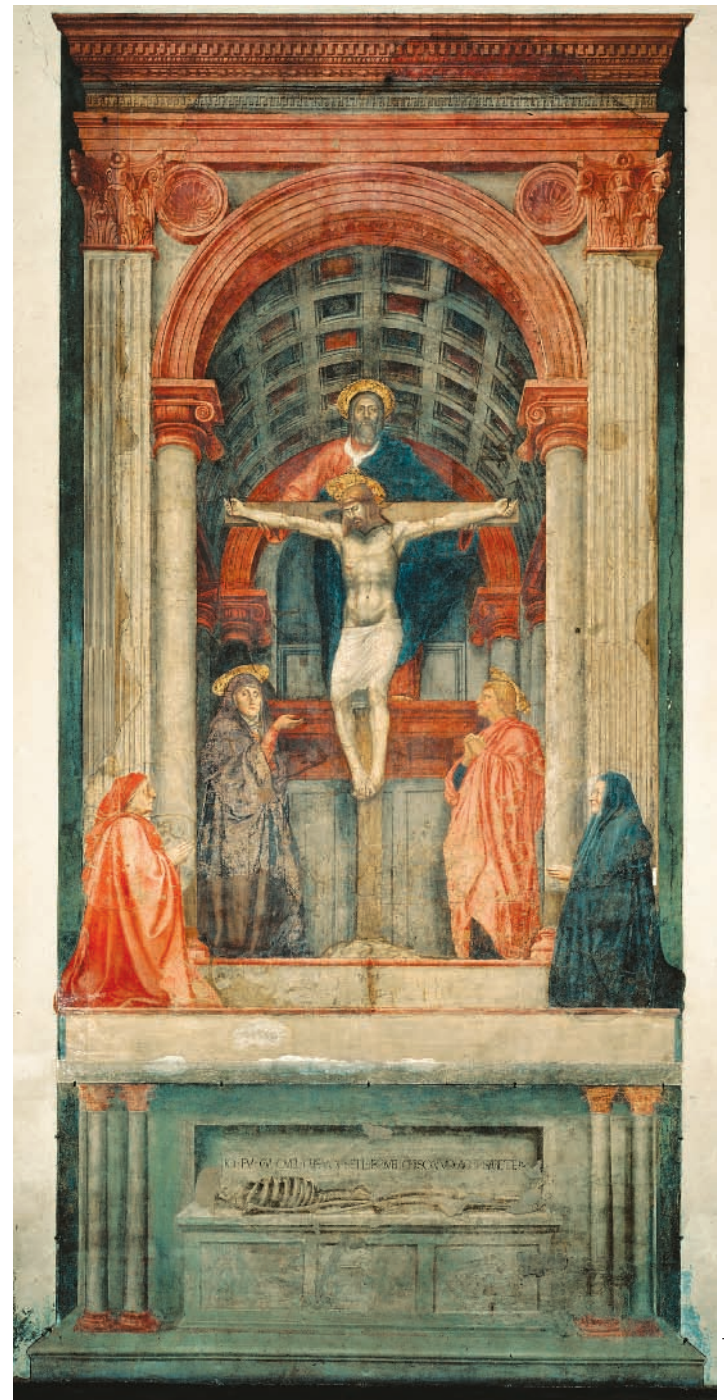
In an awkwardly narrow space at the entrance to the Brancacci Chapel, Masaccio painted *Expulsion of Adam and Eve from Eden* (FIG. 21-19), another fresco displaying the representational innovations of *Tribute Money*. For example, the sharply slanted light from an outside source creates deep relief, with lights placed alongside darks, and acts as a strong unifying agent. Masaccio also presented the figures



21-19 MASACCIO, *Expulsion of Adam and Eve from Eden*, Brancacci Chapel, Santa Maria del Carmine, Florence, Italy, ca. 1424–1427. Fresco, 7' × 2' 11".

Adam and Eve, expelled from Eden, stumble on blindly, driven by the angel's will and their own despair. The hazy background specifies no locale but suggests a space around and beyond the figures.

with convincing structural accuracy, thereby suggesting substantial body weight. Further, the hazy background specifies no locale but suggests a space around and beyond the figures. Adam's feet, clearly in contact with the ground, mark the human presence on earth, and



21-20 MASACCIO, *Holy Trinity*, Santa Maria Novella, Florence, Italy, ca. 1424–1427. Fresco, 21' 10 $\frac{5}{8}$ " × 10' 4 $\frac{3}{4}$ ".

Masaccio's *Holy Trinity* is the premier early-15th-century example of the application of mathematics to pictorial organization in Brunelleschi's new science of perspective. The illusionism is breathtaking.

the cry issuing from Eve's mouth voices her anguish. The angel does not force them physically from Eden. Rather, they stumble on blindly, the angel's will and their own despair driving them. The composition is starkly simple, its message incomparably eloquent.

HOLY TRINITY Masaccio's *Holy Trinity* fresco (FIG. 21-20) in Santa Maria Novella is another of the young artist's masterworks and the premier early-15th-century example of the application of mathematics to the depiction of space. Masaccio painted the composition on two levels of unequal height. Above, in a *coffered* barrel-vaulted chapel reminiscent of a Roman *triumphal arch*

21-21 FRA ANGELICO, *Annunciation*, San Marco, Florence, Italy, ca. 1438–1447. Fresco, 7' 1" × 10' 6".

Painted for the Dominican monks of San Marco, Fra Angelico's fresco is simple and direct. Its figures and architecture have a pristine clarity that befits the fresco's function as a devotional image.

(FIG. 10-39), the Virgin Mary and Saint John appear on either side of the crucified Christ. God the Father emerges from behind Christ, supporting the arms of the cross and presenting his Son to the worshiper as a devotional object. The dove of the Holy Spirit hovers between God's head and Christ's head. Masaccio also included portraits of the donors of the painting, Lorenzo Lenzi and his wife, who kneel just in front of the *pilasters* that frame the chapel's entrance. Below, the artist painted a tomb containing a skeleton. An inscription in Italian painted above the skeleton reminds the spectator that "I was once what you are, and what I am you will become."

The illusionism of *Holy Trinity* is breathtaking. In this fresco, Masaccio brilliantly demonstrated the principles and potential of Brunelleschi's new science of perspective. Indeed, some historians have suggested Brunelleschi may have collaborated with Masaccio. The vanishing point of the composition is at the foot of the cross. With this point at eye level, spectators look up at the Trinity and down at the tomb. About five feet above the floor level, the vanishing point pulls the two views together, creating the illusion of an actual structure that transects the wall's vertical plane. Whereas the tomb appears to project forward into the church, the chapel recedes visually behind the wall and appears as an extension of the spectator's space. This adjustment of the pictured space to the viewer's position was an important innovation in illusionistic painting that other artists of the Renaissance and the later Baroque period would develop further. Masaccio was so exact in his metrical proportions that it is possible to calculate the dimensions of the chapel (for example, the span of the painted vault is seven feet and the depth of the chapel is nine feet). Thus, he achieved not only a successful illusion but also a rational measured coherence that is responsible for the unity and harmony of the fresco. *Holy Trinity* is, however, much more than a demonstration of Brunelleschi's perspective or of the painter's ability to represent fully modeled figures bathed in light. In this painting, Masaccio also powerfully conveyed one of the central tenets of Christian faith. The ascending pyramid of figures leads viewers from the despair of death to the hope of resurrection and eternal life through Christ's crucifixion.

FRA ANGELICO As Masaccio's *Holy Trinity* clearly demonstrates, humanism and religion were not mutually exclusive, but for many 15th-century Italian artists, humanist concerns were not a primary consideration. The art of FRA ANGELICO (ca. 1400–1455) focused on serving the Roman Catholic Church. In the late 1430s, the abbot of the Dominican monastery of San Marco (Saint Mark) in Florence asked Fra Angelico to produce a series of frescoes for the monastery. The Dominicans (see "The Great Schism," Chapter 19, page 501) of San Marco had dedicated themselves to lives of prayer



and work, and the religious compound was mostly spare and austere to encourage the monks to immerse themselves in their devotional lives. Fra Angelico's *Annunciation* (FIG. 21-21) appears at the top of the stairs leading to the friars' cells. Appropriately, Fra Angelico presented the scene of the Virgin Mary and the Archangel Gabriel with simplicity and serenity. The two figures appear in a plain *loggia* resembling San Marco's *portico*, and the artist painted all the fresco elements with a pristine clarity. As an admonition to heed the devotional function of the images, Fra Angelico included a small inscription at the base of the image: "As you venerate, while passing before it, this figure of the intact Virgin, beware lest you omit to say a Hail Mary." Like most of Fra Angelico's paintings, *Annunciation's* simplicity and directness still have an almost universal appeal and fully reflect the artist's simple, humble character.

ANDREA DEL CASTAGNO Like Fra Angelico, ANDREA DEL CASTAGNO (ca. 1421–1457) accepted a commission to produce a series of frescoes for a religious establishment. His *Last Supper* (FIG. 21-22) in the *refectory* (dining hall) of Sant'Apollonia in Florence, a convent for Benedictine nuns, manifests both a commitment to the biblical narrative and an interest in perspective. The lavishly painted room that Christ and his 12 disciples occupy suggests Castagno's absorption with creating the illusion of three-dimensional space. However, close scrutiny reveals inconsistencies, such as the fact that Renaissance perspectival systems make it impossible to see both the ceiling from inside and the roof from outside, as Castagno depicted. The two side walls also do not appear parallel. The artist chose a conventional compositional format, with the figures seated at a horizontally placed table. Castagno derived the apparent self-absorption of most of the disciples and the malevolent features of Judas (who sits alone on the outside of the table) from the Gospel of Saint John, rather than the more familiar version of the Last Supper recounted in the Gospel of Saint Luke. Castagno's dramatic and spatially convincing depiction of the event no doubt was a powerful presence for the nuns during their daily meals.

FRA FILIPPO LIPPI A younger contemporary of Fra Angelico, FRA FILIPPO LIPPI (ca. 1406–1469), was also a friar—but there all resemblance ends. Fra Filippo seems to have been unsuited for



1 ft.

21-22 ANDREA DEL CASTAGNO, *Last Supper*, the refectory, convent of Sant'Apollonia, Florence, Italy, 1447. Fresco, 15' 5" × 32'.

Judas sits isolated in this *Last Supper* fresco based on the Gospel of Saint John. The figures are small compared to the setting, reflecting Castagno's preoccupation with the new science of perspective.

monastic life. He indulged in misdemeanors ranging from forgery and embezzlement to the abduction of a pretty nun, Lucretia, who became his mistress and the mother of his son, the painter Filippo Lippi (1457–1504). Only the intervention of the Medici on his behalf at the papal court saved Fra Filippo from severe punishment and total disgrace. An orphan, Fra Filippo spent his youth in a monastery adjacent to the church of Santa Maria del Carmine. When he was still in his teens, he must have met Masaccio there and witnessed the decoration of the Brancacci Chapel. Fra Filippo's early work survives only in fragments, but these show that he tried to work with Masaccio's massive forms. Later, probably under the influence of Ghiberti's and Donatello's relief sculptures, he developed a linear style that emphasized the contours of his figures and permitted him to suggest movement through flying and swirling draperies.

A painting from Fra Filippo's later years, *Madonna and Child with Angels* (FIG. 21-23), shows his skill in employing a wonderfully fluid line, which unifies the composition and contributes to the precise and smooth delineation of forms. Fra Filippo interpreted his subject in a surprisingly worldly manner. The Madonna, a beautiful young mother, is not at all spiritual or fragile, and neither is the Christ Child, whom two angels hold up. One of the angels turns with the mischievous, puckish grin of a boy refusing to behave for the pious occasion. Significantly, all figures reflect the use of live models (perhaps even Lucretia for the Madonna). Fra Filippo plainly relished the charm of youth and beauty as he found it in this world. He

21-23 FRA FILIPPO LIPPI, *Madonna and Child with Angels*, ca. 1455. Tempera on wood, 2' 11½" × 2' 1". Galleria degli Uffizi, Florence.

Fra Filippo, a monk guilty of many misdemeanors, represented the Virgin and Christ Child in a distinctly worldly manner, carrying the humanization of the holy family further than ever before.



1 ft.

21-24 DOMENICO GHIRLANDAIO, *Birth of the Virgin*, Cappella Maggiore, Santa Maria Novella, Florence, Italy, ca. 1485–1490. Fresco, 24' 4" × 14' 9".

Ludovica Tornabuoni holds as prominent a place in Ghirlandaio's fresco as she must have held in Florentine society—evidence of the secularization of sacred themes in 15th-century Italian painting.



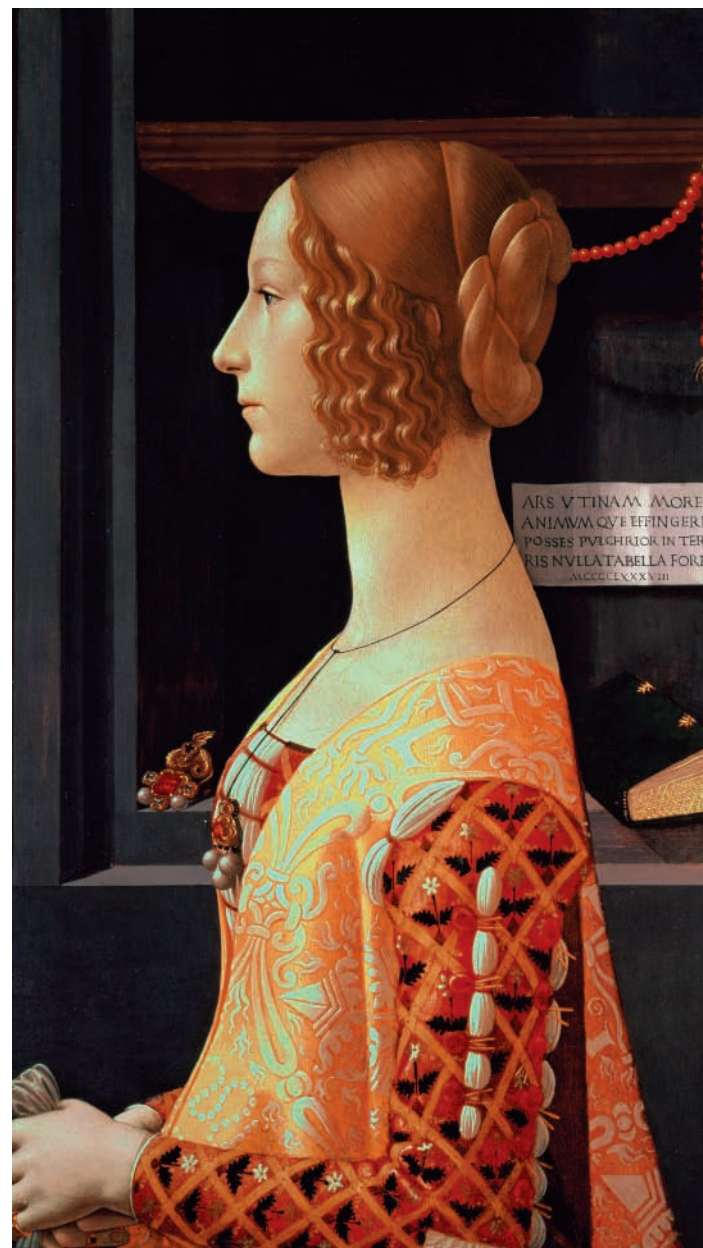
1 ft.

preferred the real in landscape also. The background, seen through the window, incorporates recognizable features of the Arno River valley. Compared with the earlier Madonnas by Giotto (FIG. 19-8) and Duccio (FIG. 19-10), this work shows how far artists had carried the humanization of the religious theme. Whatever the ideals of spiritual perfection may have meant to artists in past centuries, Renaissance artists realized those ideals in terms of the sensuous beauty of this world.

DOMENICO GHIRLANDAIO Toward the end of the 15th century, DOMENICO GHIRLANDAIO (1449–1494) received an important commission from Giovanni Tornabuoni, one of the wealthiest Florentines of his day. Tornabuoni asked Ghirlandaio to paint a cycle of frescoes depicting scenes from the lives of the Virgin and Saint John the Baptist for the choir of Santa Maria Novella, the Dominican church where Masaccio had earlier painted his revolutionary *Holy Trinity* (FIG. 21-20). In *Birth of the Virgin* (FIG. 21-24), Mary's mother, Saint Anne, reclines in a palatial Renaissance room embellished with fine wood inlay and sculpture, while midwives prepare the infant's bath. From the left comes a grave procession of women led by a young Tornabuoni family member, probably Ludovica, Giovanni's daughter. Ghirlandaio's composition epitomizes the achievements of 15th-century Florentine painting: clear spatial representation, statuesque figures, and rational order and logical relations among all figures and objects. If anything of earlier artistic traits remains here, it is the arrangement of the figures, who still cling somewhat rigidly to layers parallel to the picture plane. New, however, and in striking contrast to the dignity and austerity of Fra Angelico's frescoes (FIG. 21-21) for the Dominican monastery of San Marco, is the dominating presence of the donor's family in the religious tableau. Ludovica holds as prominent a place in the composition (close to the central axis) as she must have held in Florentine society.

21-25 DOMENICO GHIRLANDAIO, *Giovanna Tornabuoni(?)*, 1488. Oil and tempera on wood, 2' 6" × 1' 8". Museo Thyssen-Bornemisza, Madrid.

Renaissance artists revived the ancient art of portraiture. This portrait reveals the great wealth, courtly manners, and humanistic interest in classical literature that lie behind much 15th-century Florentine art.



1 in.



21-26 PAOLO UCCELLO, *Battle of San Romano*, ca. 1455 (?). Tempera on wood, 6' × 10' 5". National Gallery, London.

In this panel once in the bedchamber of Lorenzo de' Medici, Niccolò da Tolentino leads the charge against the Sienese. The foreshortened spears and figures reveal Uccello's fascination with perspective.

Her appearance in the painting (a different female member of the house appears in each fresco) is conspicuous evidence of the secularization of sacred themes. Artists depicted living persons of high rank not only as being present at biblical dramas (as Masaccio did in *Holy Trinity*) but also as even stealing the show—as here, where the Florentine women upstage the Virgin and Child. The display of patrician elegance tempers the biblical narrative and subordinates the fresco's devotional nature.

Ghirlandaio also painted individual portraits of wealthy Florentines. His 1488 panel painting (FIG. 21-25) of an aristocratic young woman is probably a portrait of Giovanna Tornabuoni (1468–1488), a member of the powerful Albizzi family and wife of Lorenzo Tornabuoni. Although artists at this time were beginning to employ three-quarter and full-face views for portraits in place of the more traditional profile pose, Ghirlandaio used the conventional format. This did not prevent him from conveying a character reading of the sitter. His portrait reveals the proud bearing of a sensitive and beautiful young woman. It also tells viewers much about the advanced state of culture in Florence, the value and careful cultivation of beauty in life and art, the breeding of courtly manners, and the great wealth behind it all. In addition, the painting shows the powerful attraction classical literature held for Italian humanists. In the background, an epitaph (Giovanna Tornabuoni died in childbirth) quotes the ancient Roman poet Martial.

PAOLO UCCELLO This secular side of Florentine art is on display in *Battle of San Romano* (FIG. 21-26) by PAOLO UCCELLO (1397–1475), a Florentine painter trained in the International Style. The panel painting is one of a series of three that Lorenzo de' Medici acquired for his bedchamber in the palatial family residence (FIGS. 21-26 and 21-37) in Florence. There is some controversy about the date of the painting because recently discovered documents suggest that Lorenzo may have purchased at least two of the paintings from a previous owner instead of commissioning the full series himself. The scenes commemorate the Florentine victory over the Sienese in 1432 and must have been painted no earlier than the mid-1430s if

not around 1455, the traditional date assigned to the commission. In the panel illustrated, Niccolò da Tolentino (ca. 1350–1435), a friend and supporter of Cosimo de' Medici, leads the charge against the Sienese. Although the painting focuses on Tolentino's military exploits, it also acknowledges the Medici, albeit in symbolic form. The bright orange fruit (appropriately placed) behind the unbroken and sturdy lances on the left were known as "mela medica" (Italian, "medicinal apples"). Given that the name Medici means "doctors," this fruit was a fitting symbol (one of many) of the family. It also suggests that at least this panel was a Medici commission.

Uccello was one of many 15th-century painters (and patrons) obsessed with the new science of perspective. The development of perspectival systems intrigued the humanists, because perspective represented the rationalization of vision. As staunch humanists, the Medici pursued all facets of expanding knowledge. In *Battle of San Romano*, Uccello created a composition that recalls the International Style processional splendor of Gentile's *Adoration of the Magi* (FIG. 21-17). But in contrast with Gentile, who emphasized surface decoration, Uccello painted immobilized solid forms. He foreshortened broken spears, lances, and a fallen soldier and carefully placed them along the converging orthogonals of the perspectival system to create a base plane like a checkerboard, on which he then placed the larger volumes in measured intervals. This diligently created space recedes to a landscape that resembles the low cultivated hillsides between Florence and Lucca. The rendering of three-dimensional form, used by other painters for representational or expressive purposes, became for Uccello a preoccupation. For him, it had a magic of its own, which he exploited to satisfy his inventive and original imagination.

SANDRO BOTTICELLI Of all the Florentine painters the Medici employed, perhaps the most famous today is SANDRO BOTTICELLI (1444–1510), a pupil of Fra Filippo Lippi (FIG. 21-23), who must have taught him the method of using firm, pure outlines with light shading within the contours. Art historians universally recognize Botticelli as one of the great masters of line. He was, however, a

21-27 SANDRO BOTTICELLI, *Primavera*, ca. 1482. Tempera on wood, 6' 8" × 10' 4". Galleria degli Uffizi, Florence.

Probably intended to commemorate the May 1482 wedding of Lorenzo di Pierfrancesco de' Medici, Botticelli's lyrical painting celebrates love in spring, with Venus and Cupid at the center of the composition.



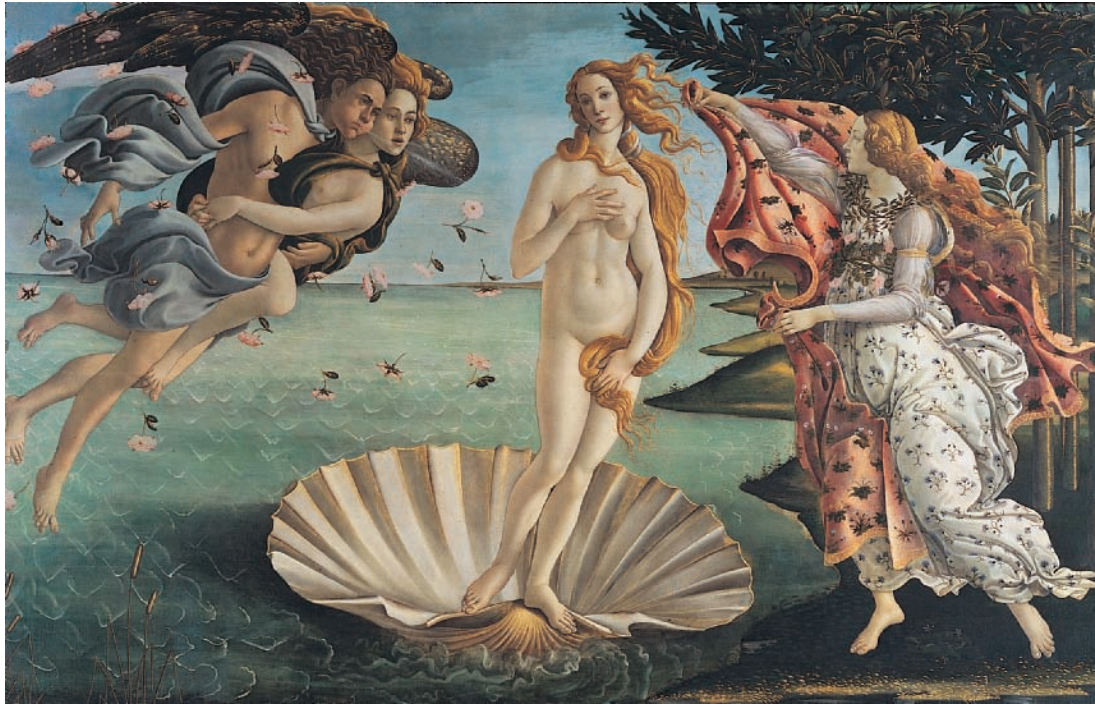
brilliant colorist as well, as is evident in *Primavera* (Spring; FIG. 21-27), one of the most popular paintings among a host of other extraordinary works in the collection of the Uffizi Gallery in Florence. The precise meaning of this painting continues to elude scholars. Created for Lorenzo di Pierfrancesco de' Medici, one of Lorenzo the Magnificent's cousins, it features a friezelike series of classically inspired figures in the foreground and a lush backdrop of orange trees in honor of the patron (compare FIG. 21-26). Venus stands just to the right of center with her son Cupid hovering above her head. Botticelli drew attention to the goddess of love by opening the landscape behind her to reveal a portion of sky that forms a kind of halo around her head. To Venus's right, seemingly the target of Cupid's arrow, are the dancing Three Graces, based closely on ancient prototypes but clothed, albeit in thin, transparent garments. At the right, the blue ice-cold Zephyrus, the west wind, is about to carry off and then marry the nymph Chloris, whom he transforms into Flora, goddess of spring, appropriately shown wearing a rich floral gown. At the far left, the enigmatic figure of Mercury turns away from all the others and reaches up with his distinctive staff, the *caduceus*, perhaps to dispel storm clouds. The sensuality of the representation, the appearance of Venus in springtime, and the abduction and marriage of Chloris all suggest that the painting was commissioned on the occasion of young Lorenzo's May 1482 wedding.

BIRTH OF VENUS Rivaling *Primavera* in fame is Botticelli's tempera on canvas *Birth of Venus* (FIG. 21-28), which the painter also created for the Medici family. The theme was the subject of a poem by Angelo Poliziano (1454–1494), a leading humanist of the day. In Botticelli's lyrical painting of the poet's retelling of the Greek myth, Zephyrus, carrying Chloris, blows Venus, born of sea foam and carried on a cockle shell, to her sacred island, Cyprus. There, the nymph Pomona runs to meet her with a brocaded mantle. The lightness and bodilessness of the winds propel all the figures without effort. Draperies undulate easily in the gentle gusts, perfumed by rose petals that fall on the whitecaps. In this painting, unlike *Primavera*, Botticelli depicted Venus as nude. As noted earlier, the nude, especially the female nude, was exceedingly rare during the Middle Ages. The artist's

use (particularly on such a large scale) of an ancient Venus statue (a Hellenistic variant of Praxiteles' famous *Aphrodite of Knidos*, FIG. 5-62) as a model could have drawn the charge of paganism. But in the more accommodating Renaissance culture and under the protection of the powerful Medici, the depiction went unchallenged.

Botticelli's style is clearly distinct from the earnest search many other artists pursued to comprehend humanity and the natural world through a rational, empirical order. Indeed, Botticelli's elegant and beautiful style seems to have ignored all of the scientific knowledge 15th-century artists had gained in the areas of perspective and anatomy. For example, the seascape in *Birth of Venus* is a flat backdrop devoid of atmospheric perspective. Botticelli's style paralleled the Florentine allegorical pageants that were chivalric tournaments structured around allusions to classical mythology. The same trend is evident in the poetry of the 1470s and 1480s. Artists and poets at this time did not directly imitate classical antiquity but used the myths, with delicate perception of their charm, in a way still tinged with medieval romance. Ultimately, Botticelli created a style of visual poetry parallel to the love poetry of Lorenzo de' Medici. His paintings possess a lyricism and courtliness that appealed to cultured Florentine patrons.

MEDICI PATRONAGE The wide range of Medici commissions illustrated in this chapter makes clear that the Florentine banking family did not restrict its collecting to any specific style or artist. Medici acquisitions ranged from mythological to biblical to contemporary historical subject matter and included both paintings and sculptures. Collectively, the art of the Medici reveals their wide and eclectic tastes and sincere love of art and learning and makes a statement about the patrons themselves as well. Careful businessmen that they were, the Medici were not sentimental about their endowment of art and scholarship. Cosimo acknowledged that his good works were not only for the honor of God but also to construct his own legacy. Fortunately, the Medici desired to promote their own fame, and this led to the creation of many of the most cherished masterpieces in the history of Western art.

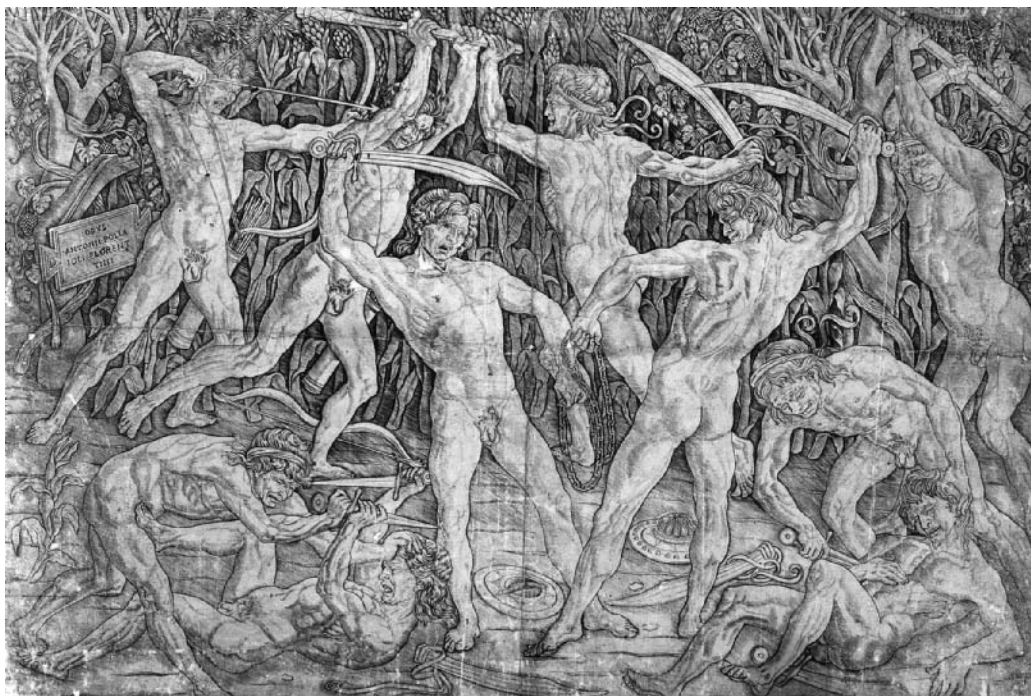


21-28 SANDRO BOTTICELLI, *Birth of Venus*, ca. 1484–1486. Tempera on canvas, 5' 9" × 9' 2". Galleria degli Uffizi, Florence.

Inspired by an Angelo Poliziano poem and classical statues of Aphrodite (FIG. 5-62), Botticelli revived the theme of the female nude in this elegant and romantic representation of Venus born of sea foam.

ENGRAVING Although the most prestigious commissions in 15th-century Florence were for large-scale panel paintings and frescoes and for monumental statues and reliefs, some artists also produced important small-scale works, such as Pollaiuolo's *Hercules and Antaeus* (FIG. 21-14). Pollaiuolo also experimented with the new medium of engraving, which Northern European artists had pioneered around the middle of the century. But whereas German graphic artists, such as Martin Schongauer (FIG. 20-22), used cross hatching that followed the forms, Italian engravers, such as Pollaiuolo, preferred parallel hatching. The former method was in keeping with the general Northern European approach to art, which tended to describe surfaces of forms rather than their underlying structures, whereas the latter better suited the anatomical studies that preoccupied Pollaiuolo and his Italian contemporaries.

Pollaiuolo's *Battle of the Ten Nudes* (FIG. 21-29), like his *Hercules and Antaeus*, reveals the artist's interest in the realistic presentation of human figures in action. Earlier artists, such as Donatello and Masaccio, had dealt effectively with the problem of rendering human anatomy, but they usually depicted their figures at rest or in restrained motion. As is evident in his engraving as well as in his sculpture, Pollaiuolo took delight in showing violent action. He conceived the body as a powerful machine and liked to display its mechanisms, such as knotted muscles and taut sinews that activate the skeleton as ropes pull levers. To show this to best effect, Pollaiuolo developed a figure so lean and muscular that it appears *écorché* (as if without skin), with strongly accentuated delineations at the wrists, elbows, shoulders, and knees. *Battle of the Ten Nudes* shows this figure type in a variety of poses and from numerous



21-29 ANTONIO DEL POLLAIUOLO, *Battle of the Ten Nudes*, ca. 1465. Engraving, 1' 3 $\frac{1}{8}$ " × 1' 11 $\frac{1}{4}$ ". Metropolitan Museum of Art, New York (bequest of Joseph Pulitzer, 1917).

Pollaiuolo was fascinated by how muscles and sinews activate the human skeleton. He delighted in showing nude figures in violent action and from numerous foreshortened viewpoints.

viewpoints, allowing Pollaiuolo to demonstrate his prowess in rendering the nude male figure. In this, he was a kindred spirit of late-sixth-century Greek vase painters, such as Euthymides (FIG. 5-24), who had experimented with foreshortening for the first time in history. Even though Pollaiuolo's figures hack and slash at each other without mercy, they nevertheless seem somewhat stiff and frozen, because Pollaiuolo depicted *all* the muscle groups at maximum tension. Not until several decades later did an even greater anatomist, Leonardo da Vinci, observe that only part of the body's muscle groups participate in any one action, while the others remain relaxed.

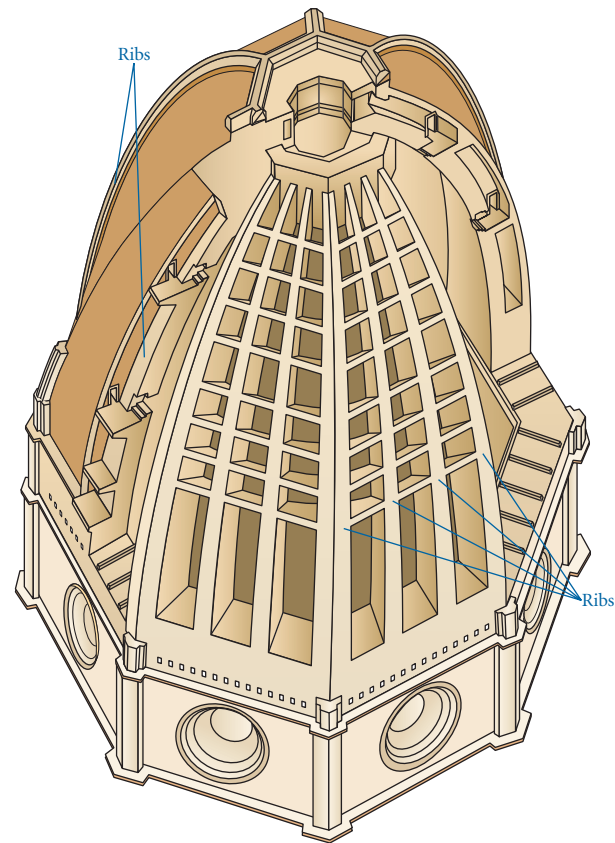
Architecture

Filippo Brunelleschi's ability to codify a system of linear perspective derived in part from his skill as an architect. Although in a biography of him written around 1480, Antonio Manetti (1423–1497) reported that Brunelleschi turned to architecture out of disappointment over the loss of the commission for Florence's baptistery doors, he continued to work as a sculptor for several years and received commissions for sculpture as late as 1416. It is true, however, that as the 15th century progressed, Brunelleschi's interest turned increasingly toward architecture. Several trips to Rome (the first in 1402, probably with his friend Donatello), where the ruins of the ancient city captivated him, heightened his fascination with architecture. His close study of Roman monuments and his effort to make an accurate record of what he saw may well have been the catalyst that led Brunelleschi to develop his revolutionary system of geometric linear perspective.

FLORENCE CATHEDRAL Brunelleschi's broad knowledge of Roman construction principles, combined with an analytical and inventive mind, permitted him to solve an engineering problem that no other 15th-century architect could tackle. The challenge was the design and construction of a *dome* for the huge *crossing* of the unfinished Florence Cathedral (FIG. 19-18). The problem was staggering. The space to be spanned (140 feet) was much too wide to permit construction with the aid of traditional wooden centering. Nor was it possible (because of the crossing plan) to support the dome with *buttressed* walls. Brunelleschi began work on the problem about 1417. In 1420 the officials overseeing cathedral projects awarded Brunelleschi and Ghiberti a joint commission. The latter, however, soon retired from the project.

With exceptional ingenuity, Brunelleschi not only discarded traditional building methods and devised new ones but also invented much of the machinery necessary for the job. Although he might have preferred the hemispheric shape of Roman domes, Brunelleschi raised the center of his dome and designed it around an *ogival* (pointed arch) section (FIG. 21-30), which is inherently more stable because it reduces the outward *thrust* around the dome's base. To minimize the structure's weight, he designed a relatively thin double shell (the first in history) around a skeleton of 24 *ribs*. The eight most important are visible on the exterior. Finally, in almost paradoxical fashion, Brunelleschi anchored the structure at the top with a heavy lantern, built after his death but from his design. Despite Brunelleschi's knowledge of and admiration for Roman building techniques, and even though Florence Cathedral's dome was his most outstanding engineering achievement, he solved this critical structural problem through what were essentially Gothic building principles. Thus, the dome, which also had to harmonize in formal terms with the century-old building, does not express Brunelleschi's Renaissance architectural style.

SANTO SPIRITO Santo Spirito (FIGS. 21-31 and 21-32), begun around 1436 and completed, with some changes, after Brunel-



21-30 FILIPPO BRUNELLESCHI, cutaway view of the dome of Florence Cathedral, Florence, Italy, 1420–1436 (after Piero Sanpaolesi).

Brunelleschi solved the problem of placing a dome over the 140-foot-wide crossing of Florence Cathedral by designing a thin double shell that was ogival in section. A heavy lantern anchors the dome at the top.

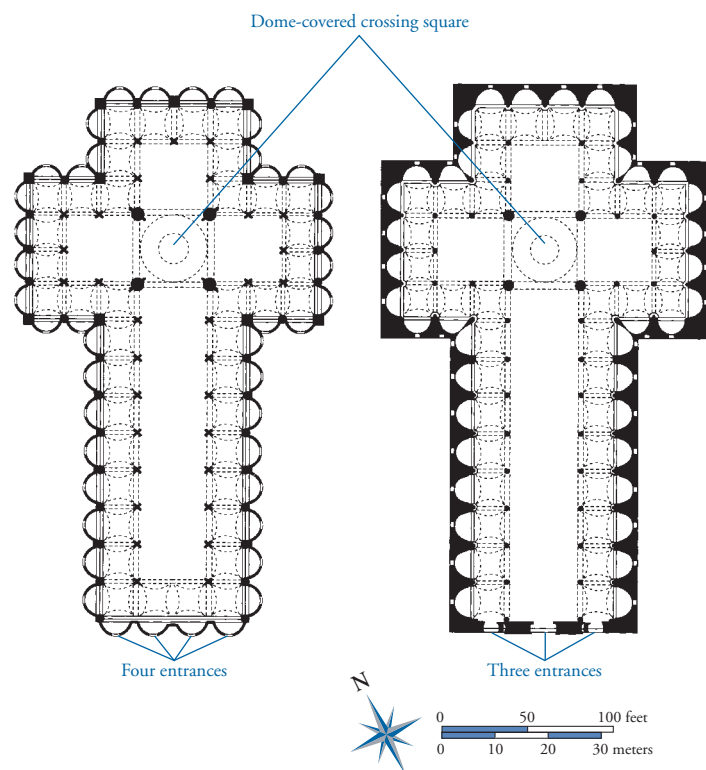
leschi's death, is one of two *basilican* churches the architect built in Florence. It showcases the clarity and classically inspired rationality that characterize Brunelleschi's mature designs. Brunelleschi laid out this *cruciform* building in either multiples or segments of the dome-covered *crossing square*. The aisles, subdivided into small squares covered by shallow, saucer-shaped vaults, run all the way around the flat-roofed central space. They have the visual effect of compressing the longitudinal design into one comparable to a *central plan*, because the various aspects of the interior resemble one another, no matter where an observer stands. Originally, this centralization effect would have been even stronger. Brunelleschi had planned to extend the aisles across the front of the nave as well, as shown on the plan (FIG. 21-32, *left*). However, adherence to that design would have required four entrances in the facade, instead of the traditional and symbolic three, a feature hotly debated during Brunelleschi's lifetime and changed after his death. Successor builders later also modified the appearance of the exterior walls (compare the two plans in FIG. 21-32) by filling in the recesses between the projecting semicircular chapels to convert the original highly sculpted wall surface into a flat one.

The major features of Santo Spirito's interior (FIG. 21-31), however, are much as Brunelleschi designed them. In this *modular* scheme, a mathematical unit served to determine the dimensions of every aspect of the church. This unit, repeated throughout the interior, creates a rhythmic harmony. For example, the nave is twice as high as it is wide, and the arcade and clerestory are of equal height, which means that the height of the arcade equals the nave's width.



21-31 FILIPPO BRUNELLESCHI, interior of Santo Spirito (looking northeast), Florence, Italy, designed 1434–1436; begun 1446.

The austerity of the decor and the mathematical clarity of the interior of Santo Spirito contrast sharply with the soaring drama and spirituality of the nave arcades and vaults of Gothic churches.



21-32 FILIPPO BRUNELLESCHI, early plan (*left*) and plan as constructed (*right*) of Santo Spirito, Florence, Italy, designed 1434–1436; begun 1446.

Santo Spirito displays the classically inspired rationality of Brunelleschi's mature architectural style in its all-encompassing modular scheme based on the dimensions of the dome-covered crossing square.



21-33 FILIPPO BRUNELLESCHI, facade of the Pazzi Chapel, Santa Croce, Florence, Italy, designed ca. 1423, begun 1442.

The Pazzi family erected this chapel as a gift to the Franciscan church of Santa Croce. One of the first independent Renaissance central-plan buildings, it served as the monks' chapter house.

Astute observers can read the proportional relationships among the interior's parts as a series of mathematical equations. The austerity of the decor enhances the rationality of the design and produces a restful and tranquil atmosphere. Brunelleschi left no space for expansive wall frescoes that only would interrupt the clarity of his architectural scheme. The calculated logic of the design echoes that of ancient Roman buildings, such as the Pantheon (FIG. 10-50, *right*). The rationality of Santo Spirito contrasts sharply, however, with the soaring drama and spirituality of the nave arcades and vaults of Gothic churches (for example, FIGS. 18-19 and 18-20). It even deviates from the design of Florence Cathedral's nave (FIG. 19-19), whose verticality is restrained compared with its Northern European counterparts. Santo Spirito fully expresses the new Renaissance spirit that placed its faith in reason rather than in the emotions.

PAZZI CHAPEL Brunelleschi's apparent effort to impart a centralized effect to the interior of Santo Spirito suggests that the compact and self-contained qualities of earlier central-plan buildings, such as the Roman Pantheon (FIGS. 10-49 to 10-51), intrigued him. The Pazzi Chapel (FIG. 21-33) presented Brunelleschi with the opportunity to explore this interest, in a structure much better suited to a centralized design than a basilican church. The chapel was the Pazzi family's gift to the Franciscan church of Santa Croce in Florence (see "Renaissance Family Chapel Endowments," page 564) and served as

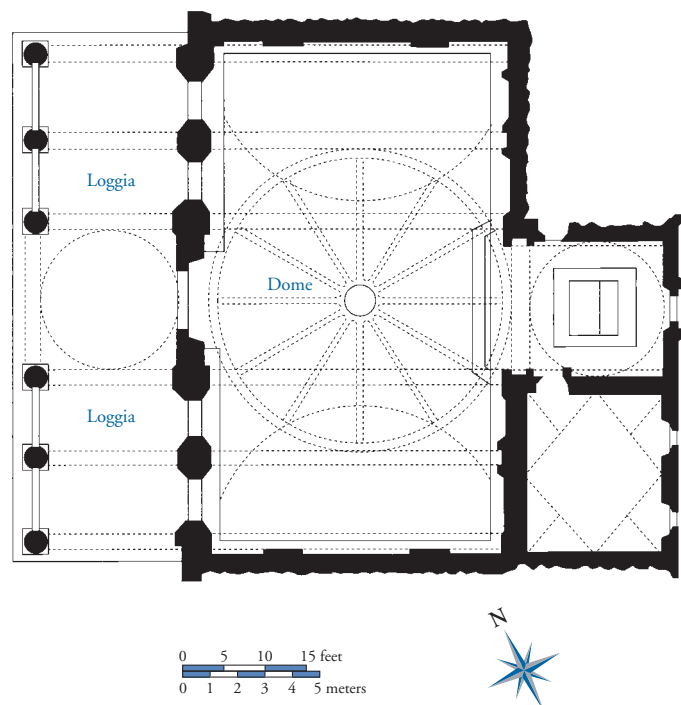
Renaissance Family Chapel Endowments

During the 14th through 16th centuries in Italy, wealthy families regularly endowed chapels in or adjacent to major churches. These family chapels were usually on either side of the choir near the altar at the church's east end. Particularly wealthy families endowed chapels in the form of separate buildings constructed adjacent to churches. For example, the Medici Chapel (Old Sacristy) abuts San Lorenzo in Florence. Powerful banking families, such as the Baroncelli, Bardi, and Peruzzi, each sponsored chapels in the Florentine church of Santa Croce. The Pazzi commissioned a chapel (FIGS. 21-33 to 21-35) adjacent to Santa Croce, and the Brancacci family sponsored the decorative program (FIGS. 21-18 and 21-19) of their chapel in Santa Maria del Carmine.

These families endowed chapels to ensure the well-being of the souls of individual family members and ancestors. The chapels served as burial sites and as spaces for liturgical celebrations and commemorative services. Chapel owners sponsored Masses for the dead, praying to the Virgin Mary and the saints for intercession on behalf of their deceased loved ones. Changes in Christian doctrine

prompted these concerted efforts to improve donors' chances for eternal salvation. Until the 13th century, Christians believed that after death, souls went either to Heaven or to Hell. After that time, the concept of Purgatory—a way station between Heaven and Hell where souls could atone for sins before Judgment Day—increasingly won favor. Pope Innocent III (1198–1216) recognized the existence of such a place in 1215. Because Purgatory represented an opportunity for the faithful to improve their chances of eventually gaining admission to Heaven, they eagerly embraced this opportunity. When they extended this idea to improving their chances while alive, charitable work, good deeds, and devotional practices proliferated. Family chapels provided the space necessary for the performance of devotional rituals. Most chapels included altars as well as chalices, vestments, candlesticks, and other objects used in the Mass. Most patrons also commissioned decorations, such as painted altarpieces, frescoes on the walls, and sculptural objects. The chapels were therefore expressions of piety and devotion but also opportunities for the donors to burnish their images in the larger community.

the monk's *chapter house* (meeting hall). Brunelleschi began to design the Pazzi Chapel around 1423, but work continued until the 1460s, long after his death. The exterior (FIG. 21-33) probably does not reflect Brunelleschi's original design. The loggia, admirable as it is, seems to have been added as an afterthought, perhaps by the sculptor-architect Giuliano da Maiano (1432–1490). Historians have



21-34 FILIPPO BRUNELLESCHI, plan of the Pazzi Chapel, Santa Croce, Florence, Italy, designed ca. 1423, begun 1442.

Although the Pazzi Chapel is rectangular, rather than square or round, Brunelleschi created a central plan by placing all emphasis on the dome-covered space at the heart of the building.



21-35 FILIPPO BRUNELLESCHI, interior of the Pazzi Chapel (looking northeast), Santa Croce, Florence, Italy, designed ca. 1423, begun 1442, with glazed terracotta roundels by LUCA DELLA ROBBIA.

The interior trim of the Pazzi Chapel is gray pietra serena, which stands out against the white stuccoed walls and crisply defines the modular relationships of Brunelleschi's plan and elevation.

21-36 MICHELOZZO DI BARTOLOMMEO, facade of the Palazzo Medici-Riccardi, Florence, Italy, begun 1445.

The Medici palace, with its combination of dressed and rusticated masonry and classical moldings, draws heavily on ancient Roman architecture, but Michelozzo creatively reinterpreted his models.

suggested that the local chapter of Franciscan monks who held meetings in the chapel needed the expansion. Behind the loggia stands one of the first independent Renaissance buildings conceived basically as a central-plan structure. Although the plan (FIG. 21-34) is rectangular, rather than square or round, the architect placed all emphasis on the central dome-covered space. The short barrel-vaulted sections that brace the dome on two sides appear to be incidental appendages. The interior trim (FIG. 21-35) is gray pietra serena (“serene stone”), which stands out against the white stuccoed walls and crisply defines the modular relationships of plan and elevation. As he did in his design for Santo Spirito, Brunelleschi used a basic unit that allowed him to construct a balanced, harmonious, and regularly proportioned space.

Circular medallions, or *tondi*, in the dome’s *pendentives* (see “Pendentives and Squinches,” Chapter 12, page 315) consist of *glazed terracotta* reliefs representing the four evangelists. The technique for manufacturing these baked clay reliefs was of recent invention. Around 1430, LUCA DELLA ROBBIA (1400–1482) perfected the application of vitrified (heat-fused) colored potters’ glazes to sculpture. Inexpensive and durable, these colorful sculptures became extremely popular and provided the basis for a flourishing family business. Luca’s nephew Andrea della Robbia (1435–1525) and Andrea’s sons, Giovanni della Robbia (1469–1529) and Girolamo della Robbia (1488–1566), carried on this tradition well into the 16th century. Most of the *roundels* in the Pazzi Chapel are the work of Luca della Robbia himself. Together with the images of the 12 apostles on the pilaster-framed wall panels, they add striking color accents to the tranquil interior.

PALAZZO MEDICI It seems curious that Brunelleschi, the most renowned architect of his time, did not participate in the upsurge of palace building that Florence experienced in the 1430s and 1440s. This proliferation of palazzi testified to the stability of the Florentine economy and to the affluence and confidence of the city’s leading citizens. Brunelleschi, however, confined his efforts in this field to work on the Palazzo di Parte Guelfa (headquarters of Florence’s then-ruling “party”) and to a rejected model for a new palace that Cosimo de’ Medici intended to build. When the Medici returned to Florence in 1434 after their short-lived exile, Cosimo, aware of the importance of public perception, attempted to maintain a lower profile and to wield his power from behind the scenes. In all probability, this attitude accounted for his rejection of Brunelleschi’s design for the Medici residence, which he evidently found



too imposing and ostentatious to be politically wise. Cosimo eventually awarded the commission to MICHELOZZO DI BARTOLOMMEO (1396–1472), a young architect who had collaborated with Donatello in several sculptural enterprises. Although Cosimo passed over Brunelleschi, his architectural style in fact deeply influenced Michelozzo. To a limited extent, the Palazzo Medici (FIG. 21-36) reflects Brunelleschian principles.

Later bought by the Riccardi family (hence the name Palazzo Medici-Riccardi), who almost doubled the facade’s length in the 18th century, the palace, both in its original and extended form, is a simple, massive structure. Heavy *rustication* (rough unfinished masonry) on the ground floor accentuates its strength. Michelozzo divided the building block into stories of decreasing height by using long, unbroken *stringcourses* (horizontal bands), which give it coherence. *Dressed* (smooth, finished) *masonry* on the second level and an even smoother surface on the top story modify the severity of the ground floor and make the building appear progressively lighter as the eye moves upward. The extremely heavy *cornice*, which Michelozzo related not to the top story but to the building as a whole, dramatically reverses this effect. Like the ancient Roman cornices that served as

21-37 MICHELOZZO DI BARTOLOMMEO, interior court of the Palazzo Medici-Riccardi, Florence, Italy, begun 1445.

The Medici palace's interior court surrounded by a round-arched colonnade was the first of its kind, but the austere design clearly reveals Michelozzo's debt to Brunelleschi (FIG. 21-31).



Michelozzo's models (compare FIGS. 10-32, 10-39, and 10-47), the Palazzo Medici-Riccardi cornice is an effective lid for the structure, clearly and emphatically defining its proportions. Michelozzo also may have drawn inspiration from the many extant examples of Roman rusticated masonry, and Roman precedents even existed for the juxtaposition of rusticated and dressed stone masonry on the same facade (FIG. 10-34). However, nothing in the ancient world precisely compares to Michelozzo's design. The Palazzo Medici exemplifies the simultaneous respect for and independence from the antique that characterize the Early Renaissance in Italy.

The heart of the Palazzo Medici is an open colonnaded court (FIG. 21-37) that clearly shows Michelozzo's debt to Brunelleschi. The round-arched colonnade, although more massive in its proportions, closely resembles other buildings Brunelleschi designed. This internal court surrounded by an arcade was the first of its kind and influenced a long line of descendants in Renaissance domestic architecture.

LEON BATTISTA ALBERTI Although he entered the profession of architecture rather late in life, LEON BATTISTA ALBERTI (1404–1472) nevertheless made a remarkable contribution to architectural design. He was the first to study seriously the ancient Roman architectural treatise of Vitruvius, and his knowledge of it, combined with his own archaeological investigations, made him the first Renaissance architect to understand classical architecture in depth. Alberti's most influential theoretical work, *On the Art of Building* (written about 1450, published 1486), although inspired by Vitruvius, contains much original material. Alberti advocated a system of ideal proportions and believed that the central plan was the ideal form for a Christian church. He also considered incongruous the combination of column and arch, which had persisted since Roman times and throughout the Middle Ages. He argued that the arch is a wall opening that should be supported only by a section of wall (a pier), not by an independent sculptural element (a column) as in Brunelleschi's and Michelozzo's buildings (FIGS. 21-31, 21-33, and 21-37).

PALAZZO RUCELLAI Alberti's own architectural style represents a scholarly application of classical elements to contemporary buildings. He designed the Palazzo Rucellai (FIG. 21-38) in Flor-



21-38 LEON BATTISTA ALBERTI and BERNARDO ROSSELLINO, Palazzo Rucellai, Florence, Italy, ca. 1452–1470.

Alberti was an ardent student of classical architecture. He created the illusion that the Palazzo Rucellai becomes lighter toward its top by adapting the Roman manner of using different capitals for each story.



21-39 LEON BATTISTA ALBERTI, west facade of Santa Maria Novella, Florence, Italy, 1456–1470.

Alberti's design for the facade of this Gothic church features a pediment-capped temple front and pilaster-framed arcades. Numerical ratios are the basis of the proportions of all parts of the facade.

his cue from a *Romanesque* design—that of the Florentine church of San Miniato al Monte (FIG. 17-27). Following his medieval model, he designed a small, pseudoclassical, *pediment*-capped temple front for the facade's upper part and supported it with a pilaster-framed arcade that incorporates the six tombs and three doorways of the Gothic building. But in the organization of these elements, Alberti applied Renaissance principles. The height of Santa Maria Novella (to the pediment tip) equals its width so that the entire facade can be inscribed in a square. Throughout the facade, Alberti defined areas and related them to one another in terms of proportions that can be expressed in simple numerical ratios. For example, the upper structure can be encased in a square one-fourth the size of the main square. The cornice separating the two levels divides the major square in half so that the lower portion of the building is a rectangle twice as wide as it is high. In his treatise,

ence, although his pupil and collaborator, BERNARDO ROSSELLINO (1409–1464), actually constructed the building using Alberti's plans and sketches. The facade of the palace is much more severe than that of the Palazzo Medici-Riccardi (FIG. 21-36). Pilasters define each story, and a classical cornice crowns the whole. Between the smooth pilasters are subdued and uniform wall surfaces. Alberti created the sense that the structure becomes lighter in weight toward its top by adapting the ancient Roman manner of using different capitals for each story. He chose *Tuscan* (the Etruscan variant of the Greek *Doric order*; FIG. 5-14 or page xxviii in Volume II) for the ground floor, *Composite* (the Roman combination of *Ionic volutes* with the acanthus leaves of the *Corinthian*; FIG. 5-73 or page xxviii in Volume II) for the second story, and *Corinthian* for the third floor. Alberti modeled his facade on the most imposing Roman ruin of all, the Colosseum (FIG. 10-1), but he was no slavish copyist. On the Colosseum's facade, the capitals employed are, from the bottom up, Tuscan, Ionic, and Corinthian. Moreover, Alberti adapted the Colosseum's varied surface to a flat facade, which does not allow the deep penetration of the building's mass that is so effective in the Roman structure. By converting his ancient model's *engaged columns* (half-round columns attached to a wall) into shallow pilasters that barely project from the wall, Alberti created a large-meshed linear net. Stretched tightly across the front of his building, it not only unifies the three levels but also emphasizes the wall's flat, two-dimensional qualities.

SANTA MARIA NOVELLA The Rucellai family also commissioned Alberti to design the facade (FIG. 21-39) of the 13th-century Gothic church of Santa Maria Novella in Florence. Here, Alberti took

Alberti wrote at length about the necessity of employing harmonic proportions to achieve beautiful buildings. Alberti shared this conviction with Brunelleschi, and this fundamental dependence on classically derived mathematics distinguished their architectural work from that of their medieval predecessors. They believed in the eternal and universal validity of numerical ratios as the source of beauty. In this respect, Alberti and Brunelleschi revived the true spirit of the High Classical age of ancient Greece, as epitomized by the sculptor Polykleitos and the architect Iktinos, who produced canons of proportions for the perfect statue and the perfect temple (see Chapter 5). But it was not only a desire to emulate Vitruvius and the Greek masters that motivated Alberti to turn to mathematics in his quest for beauty. His contemporary, the Florentine humanist Giannozzo Manetti (1396–1459), had argued that Christianity itself possessed the order and logic of mathematics. In his 1452 treatise, *On the Dignity and Excellence of Man*, Manetti stated that Christian religious truths were as self-evident as mathematical axioms.

The Santa Maria Novella facade was an ingenious solution to a difficult design problem. On the one hand, it adequately expressed the organization of the structure attached to it. On the other hand, it subjected preexisting and quintessentially medieval features, such as the large round window on the second level, to a rigid geometrical order that instilled a quality of classical calm and reason. This facade also introduced a feature of great historical consequence—the scrolls that simultaneously unite the broad lower and narrow upper level and screen the sloping roofs over the aisles. With variations, similar spirals appeared in literally hundreds of church facades throughout the Renaissance and Baroque periods.

GIROLAMO SAVONAROLA In the 1490s, Florence underwent a political, cultural, and religious upheaval. Florentine artists and their fellow citizens responded then not only to humanist ideas but also to the incursion of French armies and especially to the preaching of the Dominican monk Girolamo Savonarola (1452–1498), the reforming priest-dictator who denounced the paganism of the Medici and their artists, philosophers, and poets. Savonarola exhorted the people of Florence to repent their sins, and when Lorenzo de' Medici died in 1492, he prophesied the downfall of the city and of Italy and assumed absolute control of the state. Together with a large number of citizens, Savonarola believed that the Medici's political, social, and religious power had corrupted Florence and had invited the scourge of foreign invasion. Savonarola denounced humanism and encouraged citizens to burn their classical texts, scientific treatises, and philosophical publications. The Medici fled in 1494. Scholars still debate the significance of Savonarola's brief span of power. Apologists for the undoubtedly sincere monk deny that his actions played a role in the decline of Florentine culture at the end of the 15th century. But the puritanical spirit that moved Savonarola must have dampened considerably the neopagan enthusiasm of the Florentine Early Renaissance. Certainly, his condemnation of humanism as heretical nonsense, and his banishing of the Medici, Tornabuoni, and other wealthy families from Florence, deprived local artists of some of their major patrons. There were, however, abundant commissions for artists elsewhere in Italy.

THE PRINCELY COURTS

Although Florentine artists led the way in creating the Renaissance in art and architecture, art production flourished throughout Italy in the 15th century. The papacy in Rome and the princely courts in Urbino, Mantua, and elsewhere also deserve credit for nurturing Renaissance art (see "Italian Princely Courts and Artistic Patronage," page 569). These princely courts consisted of the prince (whose title varied from city to city), his consort and children, courtiers, household staff, and administrators. The considerable wealth these princes possessed, coupled with their desire for recognition, fame, and power, resulted in major art commissions.

Rome and the Papal States

Although not a secular ruler, the pope in Rome was the head of a court with enormous wealth at his disposal. In the 16th and 17th centuries, the popes became the major patrons of art and architecture in Italy (see Chapters 22 and 24), but even in the 15th century, the papacy was the source of some significant artistic commissions.

PERUGINO Between 1481 and 1483, Pope Sixtus IV (r. 1414–1484) summoned a group of artists, including Botticelli and Ghirlandaio, to Rome to decorate the walls of the newly completed Sistine Chapel (MAP 24-1). Pietro Vannucci of Perugia in Umbria, who was known as PERUGINO (ca. 1450–1523), was among the painters the pope em-



21-40 PERUGINO, *Christ Delivering the Keys of the Kingdom to Saint Peter*, Sistine Chapel, Vatican, Rome, Italy, 1481–1483. Fresco, 11' 5½" × 18' 8½".

Painted for the Vatican, this fresco depicts the event on which the papacy bases its authority. The converging lines of the pavement connect the action in the foreground with the background.

Italian Princely Courts and Artistic Patronage

The absence of a single sovereign ruling all of Italy and the fragmented nature of the independent city-states (MAP 19-1) provided a fertile breeding ground for the ambitions of the power-hungry. In the 15th century, Italian society witnessed the expansion of princely courts throughout the peninsula. A prince was in essence the lord of a territory, and despite this generic title, he could have been a duke, marquis, tyrant, cardinal, pope, or papal vicar. At this time, major princely courts emerged in papal Rome, Milan, Naples, Ferrara, Savoy, Urbino, and Mantua. Rather than denoting a specific organizational structure or physical entity, the term “princely court” refers to a power relationship between the prince and the territory’s inhabitants based on imperial models. Each prince worked tirelessly to preserve and extend his control and authority, seeking to establish a societal framework of people who looked to him for jobs, favors, protection, prestige, and leadership. The importance of these princely courts derived from their role as centers of power and culture.

The efficient functioning of a princely court required a sophisticated administrative structure. Each prince employed an extensive household staff, ranging from counts, nobles, cooks, waiters, stewards, footmen, stable hands, and ladies-in-waiting to dog handlers, leopard keepers, pages, and runners. The duke of Milan had more than 40 chamberlains to attend to his personal needs alone. Each prince also needed an elaborate bureaucracy to oversee political, economic, and military operations and to ensure his continued control. These officials included secretaries, lawyers, captains, ambassadors, and condottieri. Burgeoning international diplomacy and trade made each prince the center of an active and privileged sphere. The princes’ domains extended to the realm of culture, for they saw themselves as more than political, military, and economic leaders. They felt responsible for the vitality of cultural life in their territories, and art was a major component for developing a cultured populace. Visual imagery also appealed to them as effective propaganda for reinforcing their control. As the wealthiest individuals in their regions, princes possessed the means to commission numerous artworks and buildings. Thus, art functioned in several ca-

pacities—as evidence of princely sophistication and culture, as a form of prestige or commemoration, as public education and propaganda, as a demonstration of wealth, and as a source of visual pleasure.

Princes often researched in advance the reputations and styles of the artists and architects they commissioned. Such assurances of excellence were necessary, because the quality of the work reflected not just on the artist but on the patron as well. Yet despite the importance of individual style, princes sought artists who also were willing, at times, to subordinate their personal styles to work collaboratively on large-scale projects.

Princes bestowed on selected individuals the title of “court artist.” Serving as a court artist had its benefits, among them a guaranteed salary (not always forthcoming), living quarters in the palace, liberation from guild restrictions, and, on occasion, status as a member of the prince’s inner circle, perhaps even a knighthood. For artists struggling to elevate their profession from the ranks of craftspeople, working for a prince presented a marvelous opportunity. Until the 16th century, artists had limited status and were in the same class as small shopkeepers and petty merchants. Indeed, at court dinners, artists most often sat with the other members of the salaried household: tailors, cobblers, barbers, and upholsterers. Thus, the possibility of advancement was a powerful and constant incentive.

Princes demanded a great deal from court artists. Artists not only created the frescoes, portraits, and sculptures that have become their legacies but also designed tapestries, seat covers, costumes, masks, and decorations for various court festivities. Because princes constantly entertained, received ambassadors and dignitaries, and needed to maintain a high profile to reinforce their authority, lavish social functions were the norm. Artists often created gifts for visiting nobles and potentates. Recipients judged such gifts on the quality of both the work and the materials. By using expensive materials—gold leaf, silver leaf, lapis lazuli (a rich azure-blue stone imported from Afghanistan), silk, and velvet brocade—princes could impress others with their wealth and good taste.

played. His contribution to the fresco cycle of the Sistine Chapel was *Christ Delivering the Keys of the Kingdom to Saint Peter* (FIG. 21-40). The papacy had, from the beginning, based its claim to infallible and total authority over the Roman Catholic Church on this biblical event, and therefore the subject was one of obvious appeal to Sixtus IV. In Perugino’s version, Christ hands the keys to Saint Peter, who stands amid an imaginary gathering of the 12 apostles and Renaissance contemporaries. These figures occupy the apron of a great stage space that extends into the distance to a point of convergence in the doorway of a central-plan temple. (Perugino used parallel and converging lines in the pavement to mark off the intervening space.) Figures in the middle distance complement the near group, emphasizing its density and order by their scattered arrangement. At the corners of the great piazza, duplicate triumphal arches serve as the base angles of a distant compositional triangle whose apex is in the central building. Perugino modeled the arches very closely on the Arch of Constantine (FIG. 10-75) in Rome. Although an anachronism in a painting depicting a scene from Christ’s life, the arches served to underscore the close ties between

Saint Peter and Constantine, the first Christian emperor and the builder of the great basilica (FIG. 11-9) over Saint Peter’s tomb in Rome. Christ and Peter flank the triangle’s central axis, which runs through the temple’s doorway, the perspective’s vanishing point. Thus, the composition interlocks both two-dimensional and three-dimensional space, and the placement of central actors emphasizes the axial center. This spatial science allowed the artist to organize the action systematically. Perugino, in this single picture, incorporated the learning of generations.

LUCA SIGNORELLI Another Umbrian artist that Sixtus IV employed for the decoration of the Sistine Chapel was LUCA SIGNORELLI (ca. 1445–1523), in whose work the fiery passion of the sermons of Savonarola found its pictorial equal. Signorelli further developed Pollaiuolo’s interest in the depiction of muscular bodies in violent action in a wide variety of poses and foreshortenings. In the San Brizio Chapel in the cathedral of the papal state of Orvieto (MAP 19-1), Signorelli painted for Pope Alexander VI (r. 1492–1503)



21-41 LUCA SIGNORELLI, *Damned Cast into Hell*, San Brizio Chapel, Orvieto Cathedral, Orvieto, Italy, 1499–1504. Fresco, 23' wide.

Few figure compositions of the 15th century have the same psychic impact as Luca Signorelli's Orvieto Cathedral fresco of writhing, foreshortened muscular bodies tortured by demons in Hell.

scenes depicting the end of the world, including *Damned Cast into Hell* (FIG. 21-41). Few figure compositions of the 15th century have the same psychic impact. Saint Michael and the hosts of Heaven hurl the damned into Hell, where, in a dense, writhing mass, they are vigorously tortured by demons. The horrible consequences of a sinful life had not been so graphically depicted since Gislebertus carved his vision of the Last Judgment (FIGS. 1-6 and 17-12) in the west *tympa-num* of Saint-Lazare at Autun around 1130. The figures—nude, lean, and muscular—assume every conceivable posture of anguish. Signorelli's skill at foreshortening the human figure was equaled by his mastery of its action, and although each figure is clearly a study from a model, he fit his theme to the figures in an entirely convincing manner. Terror and rage explode like storms through the wrenched and twisted bodies. The fiends, their hair flaming and their bodies the color of putrefying flesh, lunge at their victims in ferocious frenzy.

Urbino

Under the patronage of Federico da Montefeltro (1422–1482), Urbino, southeast of Florence across the Appennines (MAP 19-1), became an important center of Renaissance art and culture. In fact, the humanist writer Paolo Cortese (1465–1540) described Federico as

one of the two greatest artistic patrons of the 15th century (the other was Cosimo de' Medici). Federico was a condottiere so renowned for his military expertise that he was in demand by popes and kings, and soldiers came from across Europe to study under his direction.

PIERO DELLA FRANCESCA One artist who received several commissions from Federico was PIERO DELLA FRANCESCA (ca. 1420–1492) of San Sepolcro in Tuscany, who had earlier painted for the Medici, among others. One of Piero's major works at the Urbino court was *Enthroned Madonna and Saints Adored by Federico da Montefeltro*, also called the *Brera Altarpiece* (FIG. 21-42). Federico, clad in armor, kneels piously at the Virgin's feet. Directly behind him stands Saint John the Evangelist, his patron saint. Where the viewer would expect to see Federico's wife, Battista Sforza (on the lower left, kneeling and facing her husband), no figure is present. Battista had died in 1472, shortly before Federico commissioned this painting. Thus, her absence clearly announces his loss. Piero further called attention to it by depicting Saint John the Baptist, Battista's patron saint, at the far left. The ostrich egg that hangs suspended from a shell over the Virgin's head was common over altars dedicated to Mary. The figures appear in an illusionistically painted, coffered barrel vault, which may have resembled part of the interior of the church of



21-42 PIERO DELLA FRANCESCA, *Enthroned Madonna and Saints Adored by Federico da Montefeltro* (*Brera Altarpiece*), ca. 1472–1474. Oil on wood, 8' 2" × 5' 7". Pinacoteca di Brera, Milan.

The illusionism of Piero's *Brera Altarpiece* is so convincing that the viewer is compelled to believe in Federico da Montefeltro's presence before the Virgin Mary, Christ Child, and saints.

San Bernadino degli Zoccolanti near Urbino, the painting's intended location. If so, the viewer would be compelled to believe in Federico's presence in the church before the Virgin, Christ Child, and saints. That Piero depicted Federico in left profile was undoubtedly a concession to his patron. The right side of Federico's face had sustained severe injury in a tournament, and the resulting deformity made him reluctant to show that side.

The *Brera Altarpiece* reveals Piero's deep interest in the properties of light and color. In his effort to make the clearest possible dis-

inction among forms, he flooded his pictures with light, imparting a silver-blue tonality. To avoid heavy shadows, he illuminated the dark sides of his forms with reflected light. By moving the darkest tones of his modeling toward the centers of his volumes, he separated them from their backgrounds. Because of this technique, Piero's paintings lack some of Masaccio's relieflike qualities but gain in spatial clarity, as each shape forms an independent unit surrounded by an atmospheric envelope and movable to any desired position, like a figure on a chessboard.



21-43 PIERO DELLA FRANCESCA, *Flagellation of Christ*, ca. 1455–1465. Oil and tempera on wood, 1' 11 $\frac{1}{8}$ " \times 2' 8 $\frac{1}{4}$ ". Galleria Nazionale delle Marche, Urbino.

The identification of the foreground figures continues to elude scholars. They appear to discuss the biblical tragedy that takes place in Pilate's palace (FIG. 21-1), which Piero rendered in perfect perspective.

FLAGELLATION Piero's most enigmatic painting is *Flagellation of Christ* (FIG. 21-43), a small panel painting perhaps also produced for Federico da Montefeltro. The setting for the New Testament drama is the portico of Pontius Pilate's palace in Jerusalem. Curiously, the focus of the composition is not Christ but the group of three large figures in the foreground, whose identity scholars still debate. Some have identified the bearded figure as a Turk and interpreted the painting as a commentary on the capture in 1453 of Christian Constantinople by the Muslims (see Chapter 12). Other scholars, however, identify the three men as biblical figures, including the Old Testament's King David, one of whose psalms theologians believed predicted the conspiracy against Christ. In any case, the three men appear to discuss the event in the background. As Pilate, the seated judge, watches, Christ, bound to a column topped by a classical statue, is about to be whipped (FIG. 21-1). Piero's perspective is so meticulous that the floor pattern can be reconstructed perfectly as a central porphyry (purple marble) circle with surrounding squares composed of various geometric shapes. Whatever the solution is to the iconographical puzzle of Piero's *Flagellation*, the panel reveals a mind cultivated by mathematics. The careful delineation of the setting suggests an architect's vision, certainly that of a man entirely familiar with compass and straightedge.

Piero planned his compositions almost entirely by his sense of the exact and lucid structures defined by mathematics. He believed that the highest beauty resides in forms that have the clarity and purity of geometric figures. Toward the end of his long career, Piero, a skilled geometrician, wrote the first theoretical treatise on systematic perspective, after having practiced the art with supreme mastery for almost a lifetime. His association with the architect Alberti at Ferrara and at Rimini around 1450–1451 probably turned his attention fully to perspective (a science in which Alberti was an influential pioneer) and helped determine his later, characteristically architectonic compositions. This approach appealed to Federico, a patron fascinated by architectural space and its depiction.

Mantua

Marquis Ludovico Gonzaga (1412–1478) ruled the court of Mantua in northeastern Italy (MAP 19-1). A famed condottiere like Federico da Montefeltro, Gonzaga established his reputation as a fierce military general while commanding the Milanese armies. The visit of Pope Pius II (r. 1458–1464) to Mantua in 1459 stimulated the marquis's determination to transform Mantua into a city that all Italy would envy.

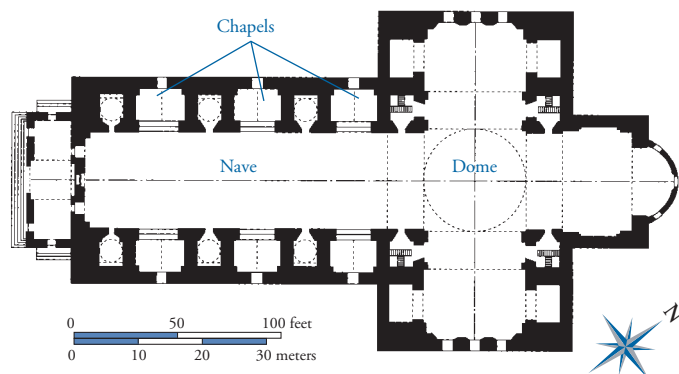


21-44 LEON BATTISTA ALBERTI, west facade of Sant'Andrea, Mantua, Italy, designed 1470, begun 1472.

Alberti's design for Sant'Andrea reflects his study of ancient Roman architecture. Employing a colossal order, the architect locked together a triumphal arch and a Roman temple front with pediment.

SANT'ANDREA One of the major projects Gonzaga instituted was the redesigning of the church of Sant'Andrea to replace an 11th-century church. Gonzaga turned to the renowned architect Leon Battista Alberti for this important commission. The facade (FIG. 21-44) Alberti designed locked together two complete ancient Roman architectural motifs—the temple front and the triumphal arch. The combination was already a familiar feature of Roman buildings still standing in Italy. For example, many triumphal arches incorporated a pediment over the arcuated passageway and engaged columns, but there is no close parallel in antiquity for Alberti's eclectic and inge-

nious design. The Renaissance architect's concern for proportion led him to equalize the vertical and horizontal dimensions of the facade, which left it considerably shorter than the church behind it. Because of the primary importance of visual appeal, many Renaissance architects made this concession not only to the demands of a purely visual proportionality in the facade but also to the facade's relation to the small square in front of it, even at the expense of continuity with the body of the building. Yet structural correspondences to the building do exist in Sant'Andrea's facade. The pilasters are the same height as those on the nave's interior walls, and the central barrel vault over the main exterior entrance, with smaller barrel vaults branching off at right angles, introduces on a smaller scale the arrangement of the nave and aisles (FIG. 21-45). The facade pilasters, as part of the wall, run uninterrupted through three stories in an early application of the *colossal* or *giant order* that became a favorite motif of Michelangelo.



21-45 LEON BATTISTA ALBERTI, plan of Sant'Andrea, Mantua, Italy, designed 1470, begun 1472.

In his architectural treatise, Alberti criticized the traditional basilican plan as impractical and designed Sant'Andrea as a single huge hall with independent chapels branching off at right angles.

21-46 LEON BATTISTA ALBERTI, interior of Sant'Andrea (looking northeast), Mantua, Italy, designed 1470, begun 1472.

Alberti abandoned the medieval columnar arcade for the nave of Sant'Andrea. The tremendous vaults suggest that he may have been inspired by Constantine's Basilica Nova (FIG. 10-78) in Rome.



The tremendous vaults in the interior of Sant'Andrea suggest that Alberti's model may have been Constantine's Basilica Nova (FIG. 10-78) in Rome—erroneously thought in the Middle Ages and Renaissance to be a Roman temple. Consistent with his belief that arches should not be used with freestanding columns, Alberti abandoned the medieval columned arcade Brunelleschi still used in Santo Spirito (FIG. 21-31). Thick walls alternating with vaulted chapels, interrupted by a massive dome over the crossing, support the huge coffered barrel vault. Because Filippo Juvara (1678–1736) added the present dome in the 18th century, the effect may be somewhat different from what Alberti planned. Regardless, the vault calls to mind the vast interior spaces and dense enclosing masses of Roman architecture. In his treatise, Alberti criticized the traditional basilican plan (with continuous aisles flanking the central nave) as impractical because the colonnades conceal the ceremonies from the faithful in the aisles. For this reason, he designed a single huge hall (FIG. 21-46) with independent chapels branching off at right angles. This break with a Christian building tradition that had endured for a thousand years was extremely influential in later Renaissance and Baroque church planning.

ANDREA MANTEGNA Like other princes, Ludovico Gonzaga believed an impressive palace was an important visual expres-

sion of his authority. One of the most spectacular rooms in the Palazzo Ducale (Ducal Palace) is the duke's bedchamber and audience hall, the so-called Camera degli Sposi (Room of the Newlyweds), originally the Camera Picta (Painted Room; FIGS. 21-47 and 21-48). ANDREA MANTEGNA (ca. 1431–1506) of Padua, near Venice, took almost nine years to complete the extensive fresco program in which he sought to aggrandize Ludovico Gonzaga and his family. The particulars of each scene are still a matter of scholarly debate, but any viewer standing in the Camera Picta surrounded by the spectacle and majesty of courtly life cannot help but be thoroughly impressed by both the commanding presence and elevated status of the patron and the dazzling artistic skills of Mantegna.

In the Camera Picta, Mantegna performed a triumphant feat by producing the first completely consistent illusionistic decoration of an entire room. By integrating real and painted architectural elements, Mantegna dissolved the room's walls in a manner that foretold later Baroque decoration (see Chapter 24). It recalls the efforts of Italian painters more than 15 centuries earlier at Pompeii and elsewhere to merge mural painting and architecture in frescoes of the so-called Second Style of Roman painting (FIGS. 10-18 and 10-19). Mantegna's *trompe l'oeil* (French, "deceives the eye") design, however, went far beyond anything preserved from ancient Italy.



21-47 ANDREA MANTEGNA, interior of the Camera Picta (Painted Chamber), Palazzo Ducale, Mantua, Italy, 1465–1474.

Working for Ludovico Gonzaga, who established Mantua as a great art city, Mantegna produced for the duke's palace the first completely consistent illusionistic fresco decoration of an entire room.



The Renaissance painter's daring experimentalism led him to complete the room's decoration with the first perspective of a ceiling (FIG. 21-48) seen from below (called, in Italian, *di sotto in sù*, "from below upward"). Baroque ceiling decorators later broadly developed this technique. Inside the Camera Picta, the viewer becomes the viewed as figures look down into the room from the painted *oculus* ("eye"). Seen against the convincing illusion of a cloud-filled blue sky, several *putti* (cupids), strongly foreshortened, set the amorous mood of the Room of the Newlyweds, as the painted spectators (who are not identified) smile down on the scene. The prominent peacock is an attribute of Juno, Jupiter's bride, who oversees lawful marriages. This brilliant feat of illusionism climaxes almost a century of experimentation with perspective.

21-48 ANDREA MANTEGNA, ceiling of the Camera Picta (Painted Chamber), Palazzo Ducale, Mantua, Italy, 1465–1474. Fresco, 8' 9" in diameter.

Inside the Camera Picta, the viewer becomes the viewed as figures look down into the room from a painted *oculus* opening onto a blue sky. This is the first perspectival view of a ceiling from below.



1 in.

21-49 ANDREA MANTEGNA, *Foreshortened Christ*, ca. 1500. Tempera on canvas, 2' 2 $\frac{3}{4}$ " \times 2' 7 $\frac{7}{8}$ ". Pinacoteca di Brera, Milan.

In this work of overwhelming emotional power, Mantegna presented both a harrowing study of a strongly foreshortened cadaver and an intensely poignant depiction of a biblical tragedy.

FORESHORTENED CHRIST One of Mantegna's later paintings (FIG. 21-49) is another example of the artist's mastery of perspective. In fact, Mantegna seems to have set up for himself difficult problems in perspective simply for the joy in solving them. The painting popularly known as *Dead Christ*, but recorded under the name *Foreshortened Christ* at the time of Mantegna's death, is a work of overwhelming power. At first glance, as its 16th-century title implies, this painting seems to be a strikingly realistic study in foreshortening. Careful scrutiny, however, reveals that Mantegna reduced

the size of the figure's feet, which, as he must have known, would cover much of the body if properly represented. Thus, tempering naturalism with artistic license, Mantegna presented both a harrowing study of a strongly foreshortened cadaver and an intensely poignant depiction of a biblical tragedy. The painter's harsh, sharp line seems to cut the surface as if it were metal and conveys, by its grinding edge, the theme's corrosive emotion. Remarkably, in the hands of Andrea Mantegna all the scientific learning of the 15th century serves the purpose of devotion.

ITALY, 1400 TO 1500

FLORENCE

- The fortunate congruence of artistic genius, the spread of humanism, and economic prosperity nourished the flowering of the new artistic culture that historians call the Renaissance—the rebirth of classical values in art and life. The greatest center of Renaissance art in the 15th century was Florence, home of the powerful Medici, who were among the most ambitious art patrons in history.
- Some of the earliest examples of the new Renaissance style in sculpture are the statues Nanni di Banco and Donatello made for the facade niches of Or San Michele. Donatello's *Saint Mark* reintroduced the classical concept of contrapposto into Renaissance statuary. His later *David* was the first nude male statue since antiquity. Donatello was also a pioneer in relief sculpture, the first to incorporate the principles of linear and atmospheric perspective, devices also employed brilliantly by Lorenzo Ghiberti in his *Gates of Paradise* for the Florence baptistery.
- The Renaissance interest in classical culture naturally also led to the revival of Greco-Roman mythological themes in art, for example, Antonio del Pollaiuolo's *Hercules and Antaeus*, and to the revival of equestrian portraits, such as Donatello's *Gattamelata* and Andrea del Verrocchio's *Bartolommeo Colleoni*.
- Although some painters continued to work in the Late Gothic International Style, others broke fresh ground by exploring new modes of representation. Masaccio's figures recall Giotto's but have a greater psychological and physical credibility, and the light shining on Masaccio's figures comes from a source outside the picture. His *Holy Trinity* epitomizes Early Renaissance painting in its convincing illusionism, achieved through Filippo Brunelleschi's new science of linear perspective, yet it remains effective as a devotional painting in a church setting.
- The secular side of 15th-century Italian painting is on display in historical works, such as Paolo Uccello's *Battle of San Romano* and Domenico Ghirlandaio's portrait *Giovanna Tornabuoni*. The humanist love of classical themes comes to the fore in the works of Sandro Botticelli, whose lyrical *Primavera* and *Birth of Venus* were inspired by contemporaneous poetry and scholarship.
- Italian architects also revived the classical style. Brunelleschi's Santo Spirito showcases the clarity and Roman-inspired rationality of 15th-century Florentine architecture. The model for Leon Battista Alberti's influential treatise *On the Art of Building* was a similar work by the ancient Roman architect Vitruvius.

Donatello, *Saint Mark*, ca. 1411–1413Masaccio, *Holy Trinity*, ca. 1424–1427

Brunelleschi, Santo Spirito, Florence, designed 1434–1436

THE PRINCELY COURTS

- Although Florentine artists led the way in creating the Renaissance in art and architecture, the papacy in Rome and the princely courts in Urbino, Mantua, and elsewhere also were major art patrons.
- Among the important papal commissions of the 15th century was the decoration of the walls of the Sistine Chapel with frescoes, including Perugino's *Christ Delivering the Keys of the Kingdom to Saint Peter*, a prime example of linear perspective.
- Under the patronage of Federico da Montefeltro, Urbino became a major center of Renaissance art and culture. The leading painter in Federico's employ was Piero della Francesca, a master of color and light and the author of the first theoretical treatise on perspective.
- Mantua became an important art center under Marquis Ludovico Gonzaga, who brought in Alberti to rebuild the church of Sant'Andrea. Alberti applied the principles he developed in his architectural treatise to the project and freely adapted forms from Roman religious, triumphal, and civic architecture.
- Gonzaga hired Andrea Mantegna to decorate the Camera Picta of his Ducal Palace, in which the painter produced the first completely consistent illusionistic decoration of an entire room.

Perugino, *Christ Delivering the Keys of the Kingdom to Saint Peter*, 1481–1483

Alberti, Sant'Andrea, Mantua, designed 1470