Chapter 21
HUMANISM AND THE ALLURE OF ANTIQUITY
15th Century Italian Art

Summary:
This chapter acquaints the student with the scope of the renaissance or rebirth as this period is labeled. This chapter also develops the argument that the renaissance was born in the 14th century. Much of the artistic formulations had been developed in the fourteenth century, the focus on humanism and its expansion into education and rediscovering the works of ancient Greece and Rome.

Humanism also emphasized commitment, responsibility and moral duty. This in turn became the foundation for civic leadership, which also promoted commissions to extol the virtues of the city and the individual.

It was during this century that the German, Johann Guttenberg developed movable type that streamlined the printing press and made books more readily available. There was a concerted effort to acquire information in a very diversified range of topics from geology and optics to engineering and medicine. The economic fluctuations in Italy also forwarded the development of artists and schools, the condottieri became power brokers and set individual cities as centers of humanism and learning which was reflected in the art commissions.

I. Lecture Model
The social and iconographic methodologies can be useful in gaining an understanding of the work commissioned. These approaches can help to establish the importance of the religious commissions and the alignment of the secular patron with the religious interpretation as a tool to fix political authority. Patronage would be a very useful approach, as well, to explain the diversity of the representational work.

1) While religion had been the focus of much of medieval thought, the Italians of the fifteenth century were very much interested in humanity.
   - For the Italians, the person literally became the "measure of all things."
   - Interest in nature was combined with a passion for mathematics, for structure, and with a great belief in humanity’s capacity to reason.
   - Art was much more closely linked to science and mathematics in Florence than it was in the North.
   - The interest in humanism and mathematics in fifteenth-century Italy can be seen in the competitive panel for the Baptistery doors by Ghiberti (21-2).
Architecture is central to understanding the birth of the Renaissance and it was in Florence that the first great buildings of the Renaissance were constructed. One man above all others was the originator of the new style in architecture: Filippo Brunelleschi (1377-1446). It was Brunelleschi who traveled from Florence to Rome to study the remains of Roman architecture. He measured them, studied the construction techniques and probed their proportions and the way in which the ancient Roman architects learned to mold space through the innovation of the arch and vault. Brunelleschi was the most visible artist in the city, with the designs of the Medici Church of San Lorenzo, the Pazzi Chapel at Santa Croce and the huge dome of the Cathedral of Florence simultaneously working on other projects.

The fame that attended his engineering solution to the construction of the cathedral dome has never waned, and the majesty of the vast cupola became a symbol of the city. But it was in the visual clarity and expression of calm rationality of his work at San Lorenzo and the Pazzi Chapel that the architect succeeded in embodying the humanism of Renaissance art.

In 1401 a famous competition was held for the design of bronze doors for the north entrance to the Baptistery. This competition was to be the prototype of competitions for public art commissions ever since and it suggest the great importance of sculpture at the outset of the Quattrocento.

- The 1401 competition was for the design of bronze doors for the north entrance to the Baptistery. The Baptistery has three entrances and already had a set of bronze doors on the south side by Andrea Pisano, completed around 1330. Of the seven entrants in the competition, the finalists were Filippo Brunelleschi and Lorenzo Ghiberti. The subject assigned them was the sacrifice of Isaac.
- **Brunelleschi’s competition panel** was a startling interpretation, in which an angel physically intervenes grasping Abraham’s knife-bearing arm to prevent him from sacrificing his son. The style is rather abrupt, with an angular Isaac and a feeling of raw brutality.
- **Ghiberti’s panel** is more stylish, with a more carefully balanced, less crowded composition, more curvilinear and idealized. Simply put it is more **beautiful and this is true also of the nude body of Isaac, a true Renaissance creation.** Although
the drama is slightly less immediate than Brunelleschi’s enactment it is more legible, of great importance in these small narrative scenes.

Ghiberti has created the first classicized nude since Antiquity, the spatial arrangement within the frame shows knowledge of mathematics and the spatial illusion.

Ghiberti has created a more focused image of the sacrifice Abraham was willing to make to God. This too shows the moral imperative to duty, which the Florentines wanted to follow.

It also was used as an exemplar for the city itself; it would become a monument, not only to religion, but also to the city.

Ghiberti’s second set of doors (1425-1452) was the culminating commission for the Baptistery, because the entrance directly opposite the Duomo’s façade was the most prestigious.

The design of the doors was radically different from the earlier Baptistery doors, each of which had been subdivided into 28 panels (14 on each valve) and each of those inset with a quatrefoil shape within which the sculptural figures had to be fitted. That essentially Gothic motif was now abandoned.

The new east doors had 10 panels, 5 in each valve, and they were square. These much larger fields were similar to those used in painting and allowed Ghiberti to develop a pictorial style of relief sculpture with remarkable illusions of architectural and landscape space. Each of the panels was completely gilded, creating an incomparable splendid appearance.

That they are know as the “Gates of paradise” is owed to Michelangelo who was said to have remarked, decades later, that Ghiberti’s doors were worthy to be the gates of Paradise.

Perspective techniques were applied to relief sculpture, as well as to painting, as can be seen from the panel from Ghiberti’s east doors of the
Florence Baptistery 1425-52 (21-5). The meeting of Isaac and his Sons is set before a complex architectural setting. There are many figures and a multitude of architectural details, yet the composition is very clear and uncluttered, the figures move easily and gracefully in this rational, logically constructed space. One can take a detail from this panel and see the spatial integrity maintained. The left foreground figures of the women move naturally and fluidly through the space, walking and talking in a natural pose. This is the humanist contribution, observation of the way people move, naturally and realistically. This is the presentation that Ghiberti focused upon in the panels for the doors of the Baptistery.

BRANCACCI CHAPEL: MASACCIO

Tommaso di Ser Giovanni, nickname, Masaccio, accio derogatory suffix meaning “ugly” or “brutish”, his nickname (big ugly Tom”).

- He was born in an Arno River valley town not far from Florence. At 20, he joined the painter’s guild in Florence and in 1425, joined the painter Masolino who was at work on the decoration of a chapel for the Brancacci family (silk merchants) in the Florentine Church of Santa Maria del Carmine. [Felice Brancacci, the recently returned Florentine ambassador in Cairo probably commissioned the well-regarded painter Masolino “little Tom” Maso di Cristofano Fini, to begin work on la fresco cycle in the chapel in early 1424.]. It was to become Masaccio’s most famous work.

- The subject of the cycle is the life of Saint Peter. Peter, as the first pope, was associated with the Guelph (papal) party, then dominant in Florence. In addition, the chapel had been founded in the late 14th c. by Piero Brancacci and dedicated to his patron saint, Peter.

- The chapel is in the right (south) transept of the church. It has undergone significant changes since the Quattrocento. The worst event was a disastrous fire in the church in 1771 that damaged the frescoes and nearly led to their destruction until Florentine artists protested.

- The walls of the chapel are divided into two tiers, which are then subdivided into narrative fields. Thus scenes appear on each of the narrow, projecting entrance walls; two wide scenes on each of the long, lateral chapel walls; and two scenes on each side of the altar on the end wall. Other 15th c. paintings on the end walls and the vault were destroyed long ago.

- Of these dozen extant scenes, Masolino was responsible for three, Masaccio for five and a half, and later around 1484, Filippino Lippi for three and half.

- Masolino first frescoed the vault, but those paintings are lost. Then he began at the opening into the chapel, at the top of the right hand pier, were he painted the Temptation of Adam and Eve. He then painted the double scene on long right wall, The Healing of the Cripple and The raising of Tabitha. (International Gothic Style)

- Masaccio had never painted in fresco before the Brancacci Chapel and that this masterpiece may have been his first in a demanding medium.
The **Tribute Money** is the largest of the scenes completed by Masaccio and striking in choice of subject, composition and richness of expression. The biblical subject is told only in the Gospel of Matthew (17:24-27): Jesus and his apostles were approached by a local tax collector in Capernaum and asked to pay the tax for the temple. Peter reacted angrily, but Jesus instructed him to go to the lake, where he would catch a fish that would have coin in its mouth. This was to be given to the collector. Not to be confused with the passage in Matthew 22 “Render unto Caesar the things that are Caesar’s...” this story is not a common subject in narrative painting, and it has been persuasively suggested that it directly related to the imposition of the Catasto, an equitable tax for defense against the invading armies of the Duke of Milan. The three-part composition, which repeats the figure of the tax collector twice and that of Peter three times, has been likened to an open-air triptych. The powerful figures and faces in this scene have sources in ancient Roman art, in Giotto and in Donatello.

21-11 **MASACCIO**, Expulsion of Adam and Eve from Eden, Brancacci Chapel, Santa Maria del Carmine, Florence, Italy, ca. 1425. Fresco, 7' x 2' 11". Expressions on their faces, their eyes are blinded by the light of god.

**HOLY TRINITY**: **MASACCIO**

Santa Maria Novella, fresco

*Holy Trinity*

The fresco nearly 22 ft. high consists of an elaborate fictive architectural setting, similar to an elevated chapel. Brunelleschis’ perspective system and the
various levels of reality that can be achieved through it govern everything. REFER TO ONE POINT PERSPECTIVE HANDOUT!

In his *Trinity*, Masaccio applied perspective principles consistently and imaginatively. In the following description, understand that everything is in fact a painted illusion on a single flat surface.

At the bottom level, facing the viewer, is a tomb with a skeleton and a motto about the mortality of mankind. Above that appears an elaborate architectural construction with six figures. The architecture consists of a barrel-vaulted chapel seen through an arch supported by two columns. The receding ribs of the coffered barrel vault are the principle orthogonals that control the perspective space in this painting. Giant pilasters topped by an elaborate cornice flank the chapel.

In the plane nearest the viewer, two figures kneel in front of the pilasters on a step that is lower than the floor of the chapel. Inside the chapel is a cross with the crucified Christ flanked by the Madonna and Saint John the Evangelist. The two standing figures, being on a higher level, are seen more sharply foreshortened than are the kneeling figures. The figure of Christ seems to be in approximately the same plane as the Madonna and Saint John.

The sixth figure is God the Father, whose feet may be seen on a ledge that seems to be at the back of the chapel, but whose hands support the arms of the cross and whose head is also nearly aligned with that of Jesus. Thus, the deity may seem, irrationally, to inhabit two spaces simultaneously. This is arguable, but that God appears to loom within the chapel and is not constrained by it is unarguable.

The dove of the Holy Spirit, between the heads of the Father and the Son, is easy to miss in reproductions: With head down and wings swept up, it looks like the collar of a white tunic. In the Trinity, the mastery of perspective is complete as is Masaccio’s understanding of its expressive potential.

21-18 FILIPPO BRUNELLESCHI, plan of the Pazzi Chapel, Santa Croce, Florence, Italy.

Another work, which shows this new interest in humanism and patronage, is the Pazzi Chapel.

The plan Brunelleschi designed combines the favorite Renaissance forms: the square and the circle (21-18).

The Chapel is an excellent illustration of architecture scaled to the person. The scale of medieval churches was intended to overwhelm people, to make them feel small in the presence of God, for example the interior of Amiens (18-17),
While the scale of Brunelleschi's chapel was intended to make people feel as though they were welcome by a more loving God.

The exterior (21-17) of the chapel also shows the circle and square symmetry Brunelleschi sought. The portico entry reflects the interest in Antiquity.

To gain a clearer image of the impact this new architecture made compare the exterior of Ste-Chapelle with the Pazzi Chapel (21-17). Both chapels are small and intimate, yet each reflects not only the period for which it was constructed; but it also satisfied the desires of the patrons who commissioned each chapel.

Ste-Chapelle was to resemble a reliquary and be devotional; while the Pazzi Chapel was to enhance the family image and indicate their stature within the city hierarchy.

Perhaps the most important manifestation of humanism was the establishment of what we call linear perspective in Florence in the 1420s. Credit for the invention or discovery is generally given to Brunelleschi, the architect of the Pazzi Chapel. Brunelleschi is said to have cut a hole in a panel, then looked through the hole at a cityscape and painted exactly what he saw.

One important aspect of this exercise was that it limited the spectator to a single position in space and then related the painted composition to the exact position of the spectator's eye.

The basic principles of perspective can be seen in Masaccio's *Trinity* fresco in the Church of Santa Maria Novella in Florence c.1428 (21-12). In linear single-point perspective all the orthogonals, that is those lines that are perpendicular to the picture plane, meet at a single point on the horizon. We call this the vanishing point. The orthogonals of the ceiling are above our eye level. If each were extended they converge at a single point at the base, which would correspond to our eye level.

LEON BATISTA ALBERTI
The growth of portraiture reflected the Renaissance concern with individualism and is another reflection of humanism and the need to leave a monument, which reflects the accomplishments of the individual. Earlier portraits had most often been done in connection with devotional foundations, and they were often imaginary representations, for example the thirteenth-century representations of Ekkehard and Uta in Naumburg Cathedral represented earlier benefactors of the cathedral (18-49).

In fifteenth-century Italy monuments and portraits praising the worldly accomplishments of individuals became increasingly popular. One showed the condottiere, or military leader, on horseback.

One of the most important of these monuments created by the sculptor Donatello about 1445 to 1450 is a portrait of Erasmo da Narni, known as the “Gattamelata” (honeyed-cat) (21-29).

A thankful populace erected this portrait of the famous mercenary leader in the city square of Padua. This is one of the first times since the Roman period that monumental sculpture was removed from a religious context; its sole purpose was to praise an individual.
An earlier example of mounted knight *The Bamberg Rider* c.1235-40 (18-50) shows the figure within the medieval context of attachment to the architecture.

However Gattamelata stands on his own as had been the case with Donatello’s earlier figure of *St. Mark* 1411-13 (21-7).

In keeping with this rediscovery of the classical heritage of Rome, Lorenzo de' Medici the leader of Florence in the second half of the fifteenth century, gathered the literati who devoted themselves to the revival of classical philosophy, literature, and art. These scholars felt their major task was to harmonize the tenets of classical humanism as represented in the works of the great pagan philosophers with the beliefs of the Christian church. This was being accomplished;

21-40 PERUGINO, Christ Delivering the Keys of the Kingdom to Saint Peter, Sistine Chapel, Vatican, Rome, Italy, 1481-1483. Fresco, 11' 5 1/2'' x 18' 8 1/2''.

Perugino synthesized this harmony in his *Christ Delivering the Keys of the Kingdom to St. Peter* 1481-83 (21-40). Classical forms slowly found their way into Christian art. At first Greek and Roman forms were adapted to Christian representations, as seen in the great pulpit that Nicola Pisano created for the baptistery of Pisa Cathedral about 1259-60 (19-2).
The interest in the forms of classical antiquity became almost a passion with many fifteenth-century Florentine artists.

Donatello was fascinated also by the classical nude figures he saw when he was in Rome; their idealized forms represented man at his most glorious. Donatello's bronze David c.1428-32 (21-23) clearly reflects this interest, even though it represents a Biblical subject.

It is the first freestanding nude figure since classical times. The figure illustrates Donatello's rediscovery of the classical device of contrapposto, or weight shift in which the weight is thrown on one foot with the consequence that one side of the body is shown relaxed while the other has a contrasting tension.

This pose had been discovered by the ancient Greeks in the fifth century BC and had been used by them and by the Romans (Polykleitos’s *Doryphorus* c.450-440 BC (5-38) and the Augustus Primaporta c.20 BC (10-25).

In contrast to Donatello’s David is Verrocchio’s *David* c.1465-70 (21-24). This figure presents a young man clothed in the armor and leather of a warrior and not a simple shepherd.

The body is more muscular and developed than Donatello’s David is. The presentation is one of assured accomplishment; the young man confronts the viewer with his victory over the Philistine, Goliath.

This work embodies the humanist theme in a more generalized manner, linking a Medieval sensitivity, rather than Donatello’s execution of the classical heritage of Rome.
2) We see a full range of fifteenth-century Italians in portraits like Ghirlandaio's magnificently dressed young woman 1488 (21-31) possibly Giovanna Tornabuoni. She is presented in profile showing the richly patterned sleeve of her garment against the soft gold of the overdress. Her hair also mirrors that patterning, on her breast is a pearl pendant, illustrating the wealth of the two families. Giovanna was a member of the powerful Albizzi family and marries into the Tornabuoni family. It could be suggested that the artist, Ghirlandaio, portrayed this young woman in profile because she dies in childbirth, a not uncommon happening in fifteenth century Europe. The background has a quote from the Roman poet Martial, which honors Giovanna; but also, indicates the erudition of the family. Botticelli created a psychological image in his Portrait of a Young Man c.1489-90 (21-28). He has given the viewer a glimpse into the soul of this young man. The Northern painters used the three-quarter portrait very effectively and some Italian artists soon adapted this. Botticelli has caught the sensuous and thoughtful in his portrait by tilting the head of the young man and slanting his eyes in a sidelong glance. The hand gently resting on his breast also attests to a thoughtful nature. Another type of portrait, which the Italian 15th century explored, was the large group portrait, which presented the family as a dynasty. For example the entire family of the Duke of Mantua was painted by Mantegna in the famous frescoes for the Camera degli Sposi 1474 (Room of the Newlyweds) or as it is sometimes known the Camera Picta (Painted Room) in the Ducal palace in Mantua (21-45). This work gives the viewer another look into the lives of the rich and powerful, Ludovico Gonzaga and his wife Barbara von Hohenzollern with their family and court. On the right wall sits Ludovico and Barbara with children and attendants, they are presented as if at court on a quiet day, informally and calm. On the left wall is the arrival of their son Cardinal Francesco Gonzaga, complete with horses and attendants. The family is welcoming home this son who had joined the papal court in Rome. This kind of dynastic portrait creates an image of power and wealth to be memorialized. The Gonzagas were stating their intention to rival the other great houses in Italy. Still another type of social portrait, which ties the family to the Church, is Ghirlandaio’s Birth of the Virgin 1485-90 (21-32). In this fresco he gave us a marvelous glimpse of uppermiddle class Florentine life. In this panel the artist has chosen one of the daughters of the house of Tornabuoni to represent the family in this religious scene. It is thought that the young woman leading the ladies is Ludovica, daughter of Giovanni Tornabuoni. She leads the ladies as witnesses to the event in calm and stateliness. The interior of this room presents two views; the right side focuses the viewer’s attention on the birth and the first bath, while the left side shows a small scene of the Visitation, the women at the top of the stairs. This juxtaposition aligns this panel in context with the Dominicans and Santa
Maria Novella was a Dominican patrimonial. Ghirlandaio has created a testament to the devotion of the Tornabuoni family as well as a statement regarding their status within Florence. Their patronage of Sta. Maria Novella and the Cappella Maggiore indicate their importance within the hierarchy of the Florentine community.

3)

For the Medieval artist, size had been a function of the importance of the subject. In the Ottonian manuscript Gospel Book of Otto III 997-1000 (16-29), Otto is larger than life. In the Romanesque fresco Christ in Majesty c.1150 (17-32), for example, Christ encompasses most of the upper portion of the apse and is decidedly larger than the Apostles below. In Piero’s Enthroned Madonna and Saints Adored by Federico da Montefeltro (Brera Altar) 1472-64 (21-50), they all must obey the laws of Renaissance space, hence the appropriate focus is channeled on the centering of the Virgin and the diagonal line of the Child drawing our attention to Federico. Andrea del Castagno's The Last Supper 1447 (21-37) follows all the rules of perspective. The converging orthogonals of the benches, the walls, and particularly the ceiling follow the Renaissance developments in perspective. The Medieval similarity in this image of the Last Supper is the separation of Judas from the other Apostles, clearly identifying him for the viewer as the betrayer. In Christ Delivering the Keys of the Kingdom to St. Peter 1481-83 (21-40), Perugino conceived one of the favorite perspective exercises of fifteenth-century Italian artists, a city square or piazza. The piazzas, which were often paved with marble squares, were so popular with artists because the structure of converging orthogonals was already laid out for them. The moldings on the surrounding buildings added other ready-made elements for the perspective structure. By placing the centralized church in the center of the composition, Perugino avoided one of the problems that often arose from a strict application of the laws of perspective. The lines converging in a single point tended to create a visual hole in the center of the canvas. The square tile pavement of the piazza serves to give the correct relationships between the sizes of the figures that are placed at varying distances from the spectator. One becomes intrigued with Perugino's solution to formal problems of the painting itself. The theme of the work is the unification of vision with theory, of art with science, and using those ideas in support of the Church and its mandate as depicted by Perugino. This work appears in the Sistine Chapel and it is the endowment for the Church in Rome. Peter moved to Rome, the, then, center of the world. Peter brought Christianity to the Empire and now the Papacy is continuing that tradition. This was the tremendous challenge for fifteenth-century Italian artists, marrying science and philosophy to religion in a coherent and rational fashion meeting the needs of the Church, as the articulator of this vision.
The science of perspective became an absolute passion for the Florentine painter, Paolo Uccello. His biographer, Vasari, relates how tenacious he became when involved in a problem of perspective. He turned his commission to do four battle scenes for the Medici into just such a problem. One solution is shown in the *Battle of San Romano* c.1455 (21-22) Uccello saw the battle in terms of geometry. He has used the broken lances on the ground to create his perspective grid work. Even the dead knight, in the left foreground is carefully foreshortened and the body is laid out precisely on a receding orthogonal. The Florentine passion for perspective was exported in the second half of the century to other parts of Italy. We already examined a work by one of the most accomplished masters of the new art, Andrea Mantegna. He set himself elaborate perspective problems such as the worm's eye view in the painting of *St. James Led to Martyrdom* c.1455 (21-47). The viewer looks up into the scene, a long barrel vault that acts almost as if it were a frame and a crown, emphasizing the coming martyrdom. Mantegna used the architectural motifs to create a solution to the perspective problems. Even more astounding is the sharply foreshortened view of the *Dead Christ* c.1501 (21-48). Mantegna has attempted to show the body feet first or as an object viewed as extended in a plane that is not perpendicular to the line of sight. The apparent visual contraction is compensated by the size of the feet, Mantegna has taken artistic license and made them smaller so our eye and mind will accept the figure fitting into the space it occupies. The ceiling from the Camera degli Sposi (21-46) also illustrates the artist's grasp of the laws of perspective. It is one of the most startling of all images, for it is strongly foreshortened and is the first example of an illusionistic painting style that became extremely popular in the Baroque period. Mantegna has created an image, almost voyeuristic, of court members along with the putti looking down into the room. He has also used the Antique symbols to solemnize the union between Ludovico Gonzaga and Barbara von Hohenzollern. The peacock looking down into the room is an icon for the Roman goddess Juno, the patron goddess of marriage. Mantegna is complimenting the Gonzaga house by the seeming approval of the ancient goddess as well as demonstrating his knowledge of Roman literature.

The greatest reconciliation of classical and late medieval form in painting is seen in the work of Sandro Botticelli. Many of Botticelli’s paintings are firmly anchored in the philosophic speculations of the members of Lorenzo de' Medici's Neo-Platonic Academy. Humanists like Poliziano and Marsilio Ficino attempted to reconcile the concepts of pagan philosophy with the principles of Christianity, just as Botticelli synthesized the visual styles in his *Birth of Venus* c.1482 (21-27). Classical figures always had a firm sense of body solidity, but Botticelli’s Venus seems to float. She is a very beautiful figure, and for the Neo-Platonic philosopher, Beauty was synonymous with Truth. The composition
illustrates the progression of Beauty and guides the soul upward from the material world to the realm of pure truth, to union with God. Earthly, natural beauty can lead us to contemplation of celestial beauty. This hierarchy of beauty conforms to Plato's definition of reality. Plato believed that truth resides in the pure ideas in the mind of the 'one.' For the Neo-Platonic philosophers everything in the world emanates from the Godhead, but each thing is more or less perfect according to the degree of nearness or remoteness from the source. From reason emanates the World soul that actualized the ideal forms in sensible matter. Matter is undetermined and has no being in itself. The visible world is a transcription of the World soul. The strongest incentive for the return of the soul to its original home is the love of Beauty. The contemplation of earthly Beauty can lead us to an understanding of pure Beauty, and since Beauty and Truth are synonymous for the Neo-Platonist we are carried through Beauty and Truth into the realm of pure being and so merge with God, the source of all being. This is the theme that pervaded the fifteenth-century.

5) Architects combined a passion for geometry with ideas adapted from classical buildings and attempted to illustrate in architecture the humanist ideals. While Brunelleschi did not slavishly copy classical prototypes, the logic and clarity of his designs are much closer to classical models than to the architecture of the Medieval Period. Brunelleschi used the columnarch combination that was found in Late Imperial Roman buildings such as the Palace of Diocletian and Early Christian church of Santa Sabina 422-432 (11-8), a combination that Alberti did not believe was sufficiently pure. Alberti had studied the writings of the Roman architect Vitruvius and wrote a book of his own on architecture, De re aedificatoria, which was to have a profound influence on later architects. Alberti himself adopted many Roman elements in his buildings: converting the column articulation of the Colosseum to the flat facade of the Rucellai Palace c.1452-70 (21-33). He used the triumphal arch with attached pilasters as the basis for his design of the facade of Sant' Andrea, Mantua (21-41) and decorated its barrel vaults (21-43) with classical Roman coffering. Alberti created a small beautifully proportioned classical facade for Santa Maria Novella, Florence c.1458-70 (21-34). In his writings Alberti stressed the importance of harmonic ratios of measure, of mathematics as the basis for beauty. These harmonic ratios were related to the old Greek concept of the harmony of the spheres and thus tied the macrocosm to the microcosm. He used the basic and perfect geometric forms of square and circle in his facades that unite heaven and earth. For the Humanists the perfect circle that had no end was the symbol of the unity, the infinite essence and the uniformity of God. The square symbolized earth, and bringing the two together created a symbolic unity between heaven and earth. Alberti believed that the centralized church was the ideal type. Alberti tried, but never succeeded, in building one. Brunelleschi had approximated it with the Pazzi Chapel (21-17). But perhaps the structure, which most epitomizes the accomplishments of humanism and the marriage of religion and philosophy based on mathematics, is the cathedral of Florence 1420-36 (21-13). This building presents a structural problem, which
Brunelleschi was able to solve. Not only did he resolve the problem of placing the dome, but also he effectively tied the dome to the structure and united the humanistic themes into one structure. The cathedral became the focus for the city of Florence and it summarizes the discoveries and changes the 15th century wrought for Italy.

Resources:
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Introduction to the Italian Renaissance 29 min. BVL9055 $89.95
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