

ST. NORBERT COLLEGE



3 5109 00250 5285

PORTABLE EDITION

Janson's History of Art

SEVENTH EDITION

The Renaissance through the Rococo



DAVIES • DENNY • HOFRICHTER • JACOBS • ROBERTS • SIMON

PORTABLE EDITION

Janson's History of Art

THE WESTERN TRADITION

Seventh Edition

The Renaissance through the Rococo

PENELOPE J. E. DAVIES

The Ancient World

DAVID L. SIMON

The Middle Ages

WALTER B. DENNY

Islamic Art

ANN M. ROBERTS

The Renaissance through the Rococo

FRIMA FOX HOFRICHTER

The Renaissance through the Rococo

JOSEPH JACOBS

The Modern World

Prentice Hall

Upper Saddle River, London, Singapore, Toronto,
Sydney, Hong Kong, and Mexico City

Janson, H. W. (Horst Woldemar).

Janson's history of art: the western tradition / Penelope J. E. Davies . . . [et al.]—7th ed.

pcam

Includes bibliographical references and index.

ISBN 10: 0-205-69743-7 | ISBN 13: 978-0-205-69743-4

I. Art—History. I. Title: History of art. II. Davies, Penelope J. E., 1964–III.

Janson, H.W. (Horst Woldemar), 1913–History of art. IV. Title

N5300.J3 2007

709—dc22

2005054647

Editor-in-Chief: **SARAH TOUBORG**

Sponsoring Editor: **HELEN RONAN**

Editor in Chief, Development: **ROCHELLE DIOGENES**

Senior Development Editor: **ROBERTA MEYER**

Development Editors: **KAREN DUBNO, CAROLYN VIOLA-JOHN**

Editorial Assistant: **JACQUELINE ZEA**

Editorial Intern: **AIZA KEESEY**

Media Project Manager: **ANITA CASTRO**

Director of Marketing: **BRANDY DAWSON**

Assistant Marketing Manager: **ANDREA MESSINEO**

Marketing Assistant: **VICTORIA DEVITA**

AVP, Director of Production and Manufacturing: **BARBARA KITTLE**

Senior Managing Editor: **LISA IARKOWSKI**

Senior Production Editor: **HARRIET TELLEM**

Production Assistant: **MARLENE GASSLER**

Manufacturing Manager: **NICK SKLITSIS**

Manufacturing Buyer: **SHERRY LEWIS**

Creative Design Director: **LESLIE OSHER**

Art Directors: **NANCY WELLS, AMY ROSEN**

Interior and Cover Design: **BTDNYC**

Design Layout: **GAIL COCKER-BOGUSZ**

Line Art Coordinator: **MARIA PIPER**

Line Art Studio: **ARGOSY PUBLISHING INC.**

Cartographer: **CARTOGRAPHICS**

Text Research and Permissions: **MARGARET GORENSTEIN**

Pearson Imaging Center

Manager: **JOSEPH CONTI**

Project Coordinator: **CORIN SKIDDS**

Scanner Operators: **RON WALKO AND CORIN SKIDDS**

Picture Editing, Research and Permissions:

LAURIE PLATT WINFREY, FAY TORRES-YAP

MARY TERESA GIANCOLI, CRISTIAN PEÑA, CAROUSEL RESEARCH, INC.

Director, Image Resource Center: **MELINDA REO**

Manager, Rights and Permissions: **ZINA ARABIA**

Manager, Visual Research: **BETH BRENZEL**

Image Permission Coordinator: **DEBBIE LATRONICA**

Copy Editor: **STEPHEN HOPKINS**

Proofreaders: **BARBARA DEVRIES, NANCY STEVENSON, PATTI GUERRIERI**

Text Editor: **CAROL PETERS**

Composition: **PREPARÉ**

Cover Printer: **PHOENIX COLOR CORPORATION**

Printer/Binder: **RR DONNELLEY**

Portable Edition Composition & Management: **SANDRA REINHARD, BLACK DOT**

Portable Edition Production Editor: **BARBARA TAYLOR-LAINO**

Portable Edition Cover Design: **PAT SMYTHE**

COVER PHOTO: Albrecht Dürer, German, (1471-1528). Melancholia I, 1514, engraving. The Metropolitan Museum of Art, Fletcher Fund, 1919.

Credits and acknowledgements borrowed from other sources and reproduced, with permission, in this textbook appear on the appropriate page within text or on the credit pages in the back of this book.

Copyright © 2007, 2004 Pearson Education, Inc., publishing as Prentice Hall, 1 Lake St., Upper Saddle River, NJ 07458. All rights reserved. Manufactured in the United States of America.

This publication is protected by Copyright, and permission should be obtained from the publisher prior to any prohibited reproduction, storage in a retrieval system, or transmission in any form or by any means, electronic, mechanical, photocopying, recording, or likewise. To obtain permission(s) to use material from this work, please submit a written request to Pearson Education, Inc., Permissions Department, 1 Lake St., Upper Saddle River, NJ 07458

Prentice Hall
is an imprint of



www.pearsonhighered.com

10 9 8 7 6 5 4 3 2

ISBN 10: 0-205-69743-7

ISBN 13: 978-0-205-69743-4

Artistic Innovations in Fifteenth-Century Northern Europe

THE GREAT CATHEDRALS OF EUROPE'S GOTHIC ERA—THE PRODUCTS OF

collaboration among churchmen, rulers, and the laity—were mostly completed by 1400. As monuments of Christian faith, they exemplify the medieval outlook. But cathedrals are also monuments of cities,

where major social and economic changes would set the stage for the modern world.

As the fourteenth century came to an end, the medieval agrarian economy was giving way to an economy based on manufacturing and trade, activities that took place in urban centers. A social shift accompanied this economic change. Many city dwellers belonged to the middle class, whose upper ranks enjoyed literacy, leisure, and disposable income. With these advantages, the middle classes gained greater social influence and cultural significance than they had wielded in the Middle Ages, when the clergy and aristocracy had dominated. This transformation had a profound effect on European culture, including the development of the visual arts.

Cities such as Paris, London, Prague, Bruges, Barcelona, and Basel were home to artisans, dayworkers, and merchants as well as aristocrats. Urban economies based more on money and wages than landed wealth required bankers, lawyers, and entrepreneurs. Investors seeking new products and markets encouraged technological innovations, such as the printing press, an invention that would change the world. Trade put more liquid wealth into the hands of merchants and artisans, who were emboldened to seek more autonomy from the traditional aristocracy, who sought to maintain the feudal status quo.

Two of the most far-reaching changes concerned increased literacy and changes in religious expression. During the four-

teenth century, the removal of the papacy to Avignon and the election of two popes created a schism in the Church that ended in 1417. But the damage had already been done. Lacking confidence in the institutional Church, many lay people turned to religious movements that encouraged them to read sacred texts on their own, to meditate on Scripture, and to seek a personal relationship with God. One such movement was called the Modern Devotion, but mendicant friars and other clerics also encouraged this new lay piety. The Church was not wholly comfortable with this phenomenon, but it took hold nonetheless. These religious impulses and increasing literacy resulted in a demand for books in vernacular (local) languages, including translations of Scripture. The printing press made books more available, further stimulating the development and spread of knowledge.

In the political sphere, changes were shaping the modern boundaries of European nations. The Hundred Years' War between France and England finally ended in 1453. This allowed the French monarchy to recover, but civil war kept England politically unstable until late in the fifteenth century. French kings, however, had to contend with their Burgundian cousins, who controlled the trading hub of Northern Europe, the rich lands of Flanders in the Southern Netherlands (present-day Belgium) and the Northern Netherlands (present-day Holland). Indeed, Duke Philip the Good of Burgundy, (r. 1419–1467) was one of the most powerful men of the century.

Detail of figure 14.17, Rogier van der Weyden, *Descent from the Cross*

This removes the theme from a strict narrative context and makes the painting function as an image of devotion similar to the *Roettgen Pietà* (fig. 12.56), though the precise detail of the figures and the landscape derive from Flemish models. In contrast to the cool rationality of Fouquet, Bermejo's work is highly emotional and expressive.

Central Europe

Linked by trade and political ties to the Netherlands, artists and patrons in Central Europe were also receptive to the new style, especially in cities along the Rhine (see map 14.1). One such artist, Conrad Witz (1400/10–1445/46) became a citizen of Basel, Switzerland, and a master in the city's guild of painters at just the moment that the Church's Council of Basel concluded. This Church council, or synod, had met from 1431 to 1434 to debate whether the pope alone or councils of bishops had the right to determine doctrine. These controversial issues inform the paintings Witz made in 1444

for the bishop of Geneva, which were destined for the Cathedral of Saint Peter.

The panels represent scenes from the life of Saint Peter, including *The Miraculous Draught of Fishes* (fig. 14.28). The painting depicts Christ calling Saint Peter to walk across the Sea of Galilee to join him. The solidly modeled figure of Christ dominates the right side of the composition, in part because his red garment contrasts vividly with the green tones of the painting. Saint Peter appears twice, once in the boat among other apostles, who are called to be "fishers of men," and again sinking into the waters upon which Christ seems to float. The technique and style owe much to the Flemings, but Witz devotes his attention to the landscape. In place of the Sea of Galilee, Witz substitutes Lake Geneva, emphasizing local topography, such as the distinctive mountain above Christ's head. He accurately depicts every reflection on the water, so that we can see the bottom of the lake in the foreground and the variety of textures of the water's surface in the background. Witz places the events of the historical past in the setting of the present. Peter's



14.28. Conrad Witz. *The Miraculous Draught of Fishes*. 1444. Oil on panel, 51 × 61" (132 × 154 cm).
© Musée d'Art et d'Histoire, Geneva, Switzerland. 1843.11

From the Contract for the St. Wolfgang Altarpiece

It took Michael Pacher ten years (1471–1481) to complete this elaborate altarpiece for the pilgrimage church of St. Wolfgang. The altarpiece is still in its original location.

Here is recorded the pact and contract concerning the altar at St. Wolfgang, concluded between the very Reverend, Reverend Benedict, Abbot of Mondsee and of his monastery there, and Master Michael, painter of Bruneck, on St. Lucy's day of the year 1471.

ITEM, it is first to be recorded that the altar shall be made conforming to the elevation and design which the painter has brought to us at Mondsee, and to its exact measurements.

ITEM, the predella shrine shall be gilded on the inside and it shall show Mary seated with the Christ Child, Joseph, and the Three Kings with their gifts; and if these should not completely fill the predella shrine he shall make more figures or armored men, all gilt.

ITEM, the main shrine shall show the Coronation of Mary with angels and gilt drapery—the most precious and the best he can make.

ITEM, on one side St. Wolfgang with mitre, crozier, church, and hatchet; on the other St. Benedict with cap, crozier, and a tumbler, entirely gilded and silvered where needed.

ITEM, to the sides of the altar shall stand St. Florian and St. George, fine armored men, silvered and gilded where needed.

ITEM, the inner wings of the altar shall be provided with good paintings, the panels gilded and equipped with gables and pinnacles, representing four subjects, one each. . . .

ITEM, the outer wings—when the altar is closed—shall be done with good pigments and with gold added to the colors; the subject from the life of St. Wolfgang. . . .

ITEM, at St. Wolfgang, while he completes and sets up the altar, we shall provide his meals and drink, and also the iron work necessary for setting up the altar, as well as help with loading wherever necessary.

ITEM, the contract is made for the sum of one thousand two hundred Hungarian guilders or ducats. . . .

ITEM, if the altar is either not worth this sum or of higher value, and there should be some difference of opinion between us, both parties shall appoint equal numbers of experts to decide the matter.

SOURCE: NORTHERN RENAISSANCE ART 1400–1600: SOURCES AND DOCUMENTS, ED. WOLFGANG STECHOW. (EVANSTON, IL: NORTHWESTERN UNIVERSITY PRESS, 1989)

sinking into the water, suggesting his need for assistance, may be evidence of the bishop's support of the Council's role to advise the pope.

AN ALTARPIECE IN ITS ORIGINAL SETTING Witz's panels were originally the wings of an altarpiece, many of which had sculptures as their central elements or *corpus*. In German speaking regions, altarpieces were usually made of wood, often large and intricately carved. Protestant reformers in the sixteenth century destroyed many sculpted religious images, so surviving examples are rare. The *St. Wolfgang Altarpiece* (fig. 14.29) by the Tyrolean sculptor and painter Michael Pacher (ca. 1435–1498) is impressive both because of its scale and because it remains in its original setting.

The surviving contract between the abbot who commissioned it and the painter specifies both the subject matter and the quality of the materials and workmanship (see *Primary Source*, above). This was the normal pattern for contracts given to artists for expensive projects in the period.

Much as Jan van Eyck did in the Ghent Altarpiece, Pacher creates a vision of heaven: The *corpus* depicts the Coronation of the Virgin as Queen of Heaven flanked by the patron saints of the monastery. Carved of soft wood that permits the sculptor to create deep folds and sharp edges, the lavishly gilt and colored forms make a dazzling spectacle as they emerge from the shadows under Flamboyant Gothic canopies. The figures and setting in the central panel seem to melt into a pattern of twisting lines that permits only the heads to stand out as separate elements.

The complexity and surface ornamentation that dominates the *corpus* contrast with the paintings of scenes from the life of the Virgin on the interior of the wings. Here the artist repre-

sents large figures, strongly modeled by clear light, and he suggests a deep space for them. He takes a viewer's vantage point into account, so that the upper panels are represented as if seen from below. This kind of perspective must have been inspired by developments in contemporary Italian painting. Pacher almost certainly crossed the Alps and visited northern Italy, where some of his works were commissioned, so he had learned to use the new technique for projecting space. (Compare his perspective to Mantegna's in figure 15.53.) This perspective appears only in the wings, however, where scenes from the past are set into spaces that look like the Austrian present. The interior of the temple where the circumcision takes place, for example, has a vault much like ones in late Gothic churches. Pacher makes the historical scenes in the wings much more down to earth than the spectacle of heaven in the center.

PRINTING AND THE GRAPHIC ARTS

Along with the new techniques of painting, fifteenth-century Europe saw the development of a new medium: printmaking. The invention of movable type and the printed page would have enormous consequences for Western civilization. Tradition has credited Johann Gutenberg (ca. 1397–1468) with inventing movable type, but the roots of printing actually lie in the ancient Near East 5,000 years ago. The Sumerians were the earliest “printers,” for their relief impressions on clay, from stone seals, were carved with both pictures and inscriptions (fig. 2.11). From Mesopotamia the use of seals spread to India and eventually to China. The Chinese applied ink to their seals in order to impress them on wood or silk, and in the second century CE they invented paper. By the ninth century they were printing pictures and books from wooden blocks carved in



14.29. Michael Pacher. *St. Wolfgang Altarpiece*. 1471–1481. Carved wood, figures about lifesize; wings, oil on panel.
Church of St. Wolfgang, Austria

Printmaking

Printmaking is a technique for making multiple copies of the same image. In the fifteenth century, most prints used dark black ink on paper (though some are printed on parchment). Printmakers used one of several techniques to make these images; the two broad categories are **relief** prints (in which the lines to be printed are raised from the block) and **intaglio** (in which the lines to be printed are cut into a plate). Designs (and text) will print as reversed images as they are transferred to the paper by the force of a press. By 1500, printing technology allowed for the reproduction of pictures by several methods, all developed at the same time as the printing of type.

WOODCUT In a woodcut the design is cut into a wood block so that raised ridges will print. The thinner the ridges are, the more difficult they are to carve, so specialists took over this phase of the work. Early woodcuts often include inscriptions, but to carve lines of text backward in relief on a wooden block must have been risky—a single slip could ruin an entire page. It is little wonder, then, that printers soon had the idea of putting each letter on its own small block. Wooden movable type carved by hand worked well for large letters but



Detail of Schongauer's
The Temptation of St. Anthony.
Engraving, see fig. 14.32

not for small ones, and the technique proved cumbersome for printing long texts such as the Bible. By 1450 this problem had been solved through the introduction of metal type cast from molds, and the stage was set for book production as it was practiced until the late twentieth century. Because the text was carved in relief, it became apparent that accompanying pictures should be carved in relief as well, so that an entire page could be printed with one run of the press over the **matrix**—or

form—which held all the information to be printed.

ENGRAVING The technique of engraving—embellishing metal surfaces with incised pictures—had developed in Classical antiquity (see fig. 6.20) and continued to be practiced throughout the Middle Ages (see fig. 10.2). Goldsmiths and designers of armor, in particular, were experts in incising designs on metal surfaces. These skills allowed goldsmiths to engrave a plate that could serve as the matrix for a paper print. Because the lines themselves were incised into the plate, more linear information could be included in the design. In an engraving, lines are V-shaped grooves cut with a special tool, called a **burin**, into a metal plate, usually copper, which is relatively soft and easy to work with. Ink is forced into the grooves made by the burin, the plate is wiped clean of excess ink, and a damp sheet of paper is placed on top of the inked plate; the force of a press transfers the ink—and the design—to the paper.

relief, and 200 years later, they developed movable type. Some of the products of Chinese printing may have reached the medieval West—perhaps through Islamic intermediaries.

The technique of manufacturing paper, too, came to Europe from contact with Islamic regions, though it gained ground as a cheap alternative to parchment very slowly. While printing on wood blocks was known in the late Middle Ages, it was used only for ornamental patterns on cloth. All the more astonishing, then, is the development, over the course of a century, of a printing technology capable of producing editions of several hundred copies of relatively inexpensive books. The new technology quickly spread across Europe, spawning the new industry of bookmaking. Printed books were far less expensive than hand made volumes, but they were useless to those who could not read. Literacy began to rise among the lower classes, a consequence that would have profound effects on Western civilization. To compete with illuminated manuscripts, printed books included printed images, which were often hand colored to imitate the more expensive manuscripts. Ultimately, the printed book almost completely replaced the illuminated manuscript.

The pictorial and the literary aspects of printing were closely linked from the start. The practice of inking pictorial designs carved on wooden blocks and then printing those designs on paper began in Europe late in the fourteenth century. Early surviving examples of such prints, called **woodcuts**, come from France, the Netherlands, and Germany. The designs were



14.30. *Buxheim Saint Christopher*. 1423. Woodcut, $11\frac{3}{8} \times 8\frac{1}{8}$ " (28.8 × 20.6 cm). John Rylands University Library. Courtesy of the Director and the Librarian. The John Rylands University Library of Manchester



14.31. Woodcut of St. Christopher, detail from the *Annunciation* by Robert Campin (?) ca. 1435. Musées Royaux de Beaux-Arts de Belgique. Inv. 3937

probably furnished by painters or sculptors, but the actual carving of the wood blocks was done by specialists. (For the various techniques of printing, for pictures as well as books, see *Materials and Techniques*, facing page.)

An early dated example of a woodcut is the *Buxheim Saint Christopher* (fig. 14.30), so called because it came from a monastery in that south German town. This single sheet, hand-colored woodcut bears the date 1423 and a prayer to the saint; woodcuts combining image and text like this were sometimes assembled into popular picture books called *block books*. Simple, heavy lines define the forms in the print, including the fall of the garment around the figures and the contours of objects. Vertical lines in parallel rows—called **hatching**—denote shadows or textures of objects, but the composition is strictly two-dimensional, as the landscape forms rise along the picture plane to surround the figures. According to legend, Christopher was a giant who ferried people across a river; he was surprised one day at the weight of a child, who turned out to be Christ. (The saint's name derives from this encounter.)

The forms in the *Buxheim Saint Christopher* owe a great deal to late Gothic style, but the audience for prints were not the aristocrats of the Middle Ages. Fifteenth-century woodcuts were popular art. A single wood block yielded thousands of copies, to be sold for pennies apiece, so that for the first time in history almost anyone could own pictures. A detail from a Flemish *Annunciation* panel of about 1435 in figure 14.31 reveals one use to which people put such prints. A print much like the *Buxheim Saint Christopher* is pinned on the wall in a middle-class household.

From the start, **engravings** appealed to a smaller and more sophisticated public. The oldest surviving examples, from about 1430, already show the influence of Flemish painters. Early engravers were usually trained as goldsmiths, but their prints reflect local painting styles. Their forms are systematically modeled with fine hatched lines and often convincingly foreshortened. Distinctive styles appear even in the earliest

ART IN TIME

1444—Witz's *The Miraculous Draught of Fishes*

1469—Marriage of Ferdinand of Aragon and Isabella of Castile

1486—Maximilian of Habsburg becomes Holy Roman Emperor

1492—Muslim kingdom of Granada conquered by Spain

engravings, and engravers included initials and dates in their prints. Consequently, many engravers of the late fifteenth century are known to us by name.

Printing Centers in Colmar and Basel

Martin Schongauer of Colmar, Germany (ca. 1435/50–1491) learned the goldsmith's craft from his father, but he became a printmaker and a painter. He studied the paintings of Rogier van der Weyden, which may have influenced the style of his engravings. Their complex designs, spatial depth, and rich textures make them competitors to panel paintings. Some artists found inspiration in them for large-scale pictures. They were also copied by other printmakers. *The Temptation of St. Anthony* (fig. 14.32) is one of Schongauer's most famous works—known



14.32. Martin Schongauer. *The Temptation of St. Anthony*. ca. 1480–1490. Engraving, $11\frac{1}{2} \times 8\frac{5}{8}$ " (29.2 × 21.8 cm). The Metropolitan Museum of Art, New York Rogers Fund, 1920

ART IN TIME

ca. 1250—Paper mills in Europe

ca. 1455—Gutenberg prints Bible in Mainz, Germany

ca. 1476—William Caxton establishes a printing press in England

ca. 1480—Martin Schongauer's *The Temptation of St. Anthony*

and admired in sixteenth-century Italy. The print represents the climax of Saint Anthony's resistance to the devil. Unable to tempt him to sin, the devil sent demons to torment him. The engraving displays a wide range of tonal values, a rhythmic quality of line, and the rendering of every conceivable kind of surface—spiky, scaly, leathery, furry—achieved by varying the type of mark made on the plate.

Since the time of Witz, the Swiss city of Basel had embraced the new technology for printing books to become a major center for publishing. A group of reform-minded intellectuals and

authors contributed texts for publication, which graphic artists illustrated with woodcuts. One of the best sellers of the period was a satiric text by Sebastian Brant called the *Ship of Fools*, published in Basel in 1494. Brant's text poked fun at many of the ills he perceived in contemporary society, which, as the title implies, he characterized as a boat piloted by Folly. One important theme his text addresses is contemporary dissatisfaction with the Church. This tide of anticlerical feeling was already rising when Luther's critique of the Church was posted in 1517 in Wittenberg (see page 632). But Brant's satirical eye also fell on his own peers, as the woodcut in figure 14.33 reveals. The image depicts a scholar in his study surrounded by books, but rather than read them, he holds a duster to clean them. The man's costume, including a hood with bells on it, identifies him as a fool. Compared with the *Buxheim Saint Christopher*, the unnamed artist who produced this woodcut increases the density of hatching that implies texture and volume and attempts a spatial context for the forms. The practice of coloring prints fell by the wayside as the medium developed its own aesthetic and appeal.



14.33. Woodcut of Scholar in Study, from Sebastian Brant, *Ship of Fools*. Published Basel, 1494

SUMMARY

all that it depends on the past, the art of Northern Europe in the fifteenth century differs profoundly from the art of previous centuries. Out of the lingering Gothic forms preferred by the aristocracy, its books and precious objects grew a new form of art in the medium of oil painting. The paintings of Robert Campin, Jan van Eyck, and Rogier van der Weyden are exceptional not for the expense of their raw materials, but for the skill with which each artist records the natural world to enhance the spiritual experience of a viewer. The revolution in the visual arts that these artists pioneered spread all over Northern Europe and affected many different media. If we consider the fifteenth century in Northern Europe as a period of artistic and cultural flowering with great implications for the future, then this era must be called a renaissance.

COURTLY ART: THE INTERNATIONAL GOTHIC

growing out of French Gothic styles, but also incorporating stylistic features from other parts of Europe, the International Gothic style appealed mostly to patrons in the royal courts. These aristocratic patrons commissioned luxury products based on the traditions of Gothic art, but embellished with naturalistic details. Made for elite viewers, these works often have complex and erudite imagery. The international ties among the patrons spread the style to the courts of Europe.

URBAN CENTERS AND THE NEW ART

In contrast, artists in the urban centers of the Southern Netherlands developed techniques and styles to record the natural world and create religious images that spoke directly to the middle-class patrons who commissioned them. In these images made only of wood and oil paint, sacred figures resembled real people, who had bodies with weight and texture and who expressed

human emotion vividly. Portraits recorded the features of patrons with great accuracy. Details of settings or garments contribute to the realistic effect of these images, while adding symbolic meaning.

LATE FIFTEENTH-CENTURY ART IN THE NETHERLANDS

The new style of painting spread throughout the Netherlands and by 1500 had an impact on artists working in other art forms, such as manuscripts, tapestries, and sculpture. Although the courts continued to prefer these luxury arts, painting increased in stature and in patronage. International merchants purchased paintings that depicted the patrons in close contact with sacred figures. These works expressed the piety of their patrons, but also served their social ambitions.

REGIONAL RESPONSES TO THE EARLY NETHERLANDISH STYLE

Artists in other regions throughout Europe adapted the technical and stylistic innovations of the Netherlands. The French preference for geometric order and clear design combined with this naturalistic style to produce somber and meditative images, while Spanish artists made more dramatic and expressive images. In Central Europe, artists extended the naturalistic style to include specific local settings for sacred stories, bringing the religious lessons ever closer to a viewer.

PRINTING AND THE GRAPHIC ARTS

Born in Northern Europe, the new technology of printmaking contributed to the spread of these variations on Netherlandish naturalism. Early prints in woodcut and engraving borrowed motifs and compositions from painters, which they had to translate into strictly linear elements. By the end of the century, however, printmakers made original compositions with great skill that competed with the naturalism of painting.

Renaissance and Reformation in Sixteenth-Century Northern Europe

EUROPEANS BEYOND THE ITALIAN PENINSULA CONFRONTED THE SAME breaks with tradition that Italians did in the sixteenth century. In addition to the religious challenge of the Reformation and the new cultural expressions of the Renaissance, Northern Europeans witnessed the growing power of large centralized states in France, England, Spain, and the Holy

Roman Empire, and the expansion of Europe's economic reach around the globe. As Northern Europe experienced the birth pangs of the modern era, artists reconciled local traditions with these new conditions.

The challenge of the Reformation to the Roman Catholic Church would fundamentally change the map of Europe. Proponents of religious reform including Luther, Ulrich Zwingli, John Calvin, and others attracted many adherents, and whole communities, cities, and even states were converted, fracturing the religious unity of Europe. Catholic Europe faced off against Protestant Europe, with great loss of life. While France and Spain remained loyal to the Roman Catholic Church, Germany, England, and the Netherlands were divided by religious sectarianism. The more radical reformed faiths deplored the Catholic tradition of religious images and relics and encouraged the destruction of images in the areas that converted to their beliefs.

Under such conditions, artists had to find new ways to pursue their craft and new markets for their products. Those markets would continue the trends established in the fifteenth century. A growing capitalist economy brought wealth and population to the cities, while landowning declined as a mea-

sure of wealth. Manufacturing and trade grew, especially with the new Atlantic trade routes and colonial settlements in the Americas and Asia. Even as the cities increased in economic and social importance, increasingly authoritarian rulers asserted control over their domains.

The arts in Northern Europe responded to these pressures. In part because of the Protestant Reformers' suspicion of sculptural expression, the medium of painting increased in importance. As religious patronage waned, artists turned to secular themes, which appealed to patrons in the cities and in the courts. To compete on the open market, artists began to specialize in particular subjects or themes. The achievements of the Italian Renaissance also challenged Northern artists, who absorbed Italian compositions, ideal figure types, and admiration of antiquity. Patrons in the courts found Italian style particularly useful for expressing their power, as they built monumental palaces. Catholic rulers often used Italianate forms to affirm their faith.

FRANCE: COURTLY TASTES FOR ITALIAN FORMS

France was fertile ground for the importation of Italian ideas. French kings had been intervening in Italy for centuries, which brought them into contact with developments in Italian

Detail of figure 18.17, Albrecht Dürer, *The Four Horsemen of the Apocalypse*

ART IN TIME

1519—Magellan begins global voyage for Spain

1521—Conquest of Mexico by Cortés

1563—Escorial begun

1586—El Greco's *The Burial of Count Orgaz*

calculated to achieve an illusion of boundless space above, while the figures in the lower foreground appear as on a stage. The large stone plaque set into the wall also belongs to the ensemble. It represents the front of the sarcophagus into which the two saints lower the body of the count, which explains the action in the picture. A viewer, then, perceives three levels of reality. The first is the grave itself, supposedly set into the wall at eye level and closed by an actual stone slab; the second is the reenactment of the miraculous burial; and the third is the vision of celestial glory witnessed by some of the participants. This kind of mysticism is very similar in character to parts of the *Spiritual Exercises* of Ignatius of Loyola, the founder of the Jesuits. Serving the aims of the Catholic Reformation, Ignatius taught believers to meditate in steps so that they might achieve visions so real that they would seem to appear before their very eyes. Such mysticism could be achieved only through strenuous devotion. That effort is mirrored in the intensity of El Greco's work, which expresses strenuous spiritual struggle.

CENTRAL EUROPE: THE REFORMATION AND ART

While France, Spain, and Italy adhered to the Catholic faith, the religious and artistic situation was more complex elsewhere in Europe. In addition to Spain, Charles V had inherited the many different political units that comprised what is now Germany, Austria, Hungary, and the Czech Republic. Governing so many disparate regions posed many challenges, which were passed along to Charles's brother Ferdinand when Charles stepped down as ruler in 1556. Though linked in many cases by language and cultural ties, as well as by trade, these were independent regions only nominally under control of the Holy Roman emperor. What unity they may have had suffered another blow after 1517, when religious unity was fractured by the Reformation.

In October 1517, Martin Luther, a former Augustinian friar who had become professor of theology at the University of Wittenberg, issued a public challenge to both the theology and the institutional practices of the Catholic Church. In his now famous *Ninety-five Theses*, which he nailed to the church door at Wittenberg Castle, Luther complained about the Catholic practice of selling indulgences—promises of redemption of sins; he argued too against the veneration of Mary and the saints. Most fundamental to his critique of Catholicism, Luther claimed that the Bible and natural reason were the sole bases of religious authority, and that the intervention of clerics

and saints was unnecessary for salvation, which was freely given by God. It followed then, that religious authority was transferred from the pope to the individual conscience of each believer. The Catholic Church responded by condemning him in 1521. But Luther's critique was accepted by many Christians in Europe, which eventually fueled political instability, rebellions, and wars. Many areas of northern Germany converted to the reform, while southern regions, like Bavaria, remained Catholic. In rethinking these basic issues of faith, Luther was joined by other religious reformers.

The Swiss pastor Ulrich Zwingli wanted to reduce religion to its essentials by stressing access to scriptures and preaching. As a result of his literal reading of the Bible, he denounced not only the sale of indulgences, but the visual arts as well. Zwingli interpreted the Eucharist as a symbolic, rather than actual, communion of bread and wine, which led to a split with Luther that was never healed. What concerned the reformers above all were the twin issues of grace and free will in attaining faith and salvation. By the time of Zwingli's death at the hands of the Catholic forces in 1531, the main elements of Protestant theology had nevertheless been defined. John Calvin of Geneva codified these tenets around midcentury; his vision of a moral life based on a literal reading of Scripture was to prove very influential. The spread of the reformed faiths led to decades of violence, including a Peasants' Revolt in 1525 and wars in regions that were converting to the Protestant confessions. From 1546 until 1555, German principalities fought with the emperor Charles V, until the Peace of Augsburg in 1555. By this compromise, the rulers of individual regions of Germany chose the faith for that region's inhabitants. This furthered the spread of the reformed faiths, but also fostered the political divisions of the area.

The repercussions for art were equally dramatic. Although Luther's own attitude toward the visual arts was ambivalent, he saw the value of art as a tool for teaching. (See end of Part III, *Additional Primary Sources*.) Some of the more radical reformers saw the many forms of Medieval and Renaissance religious art as nothing short of idolatry that needed to be cleansed. Inspired by reformers' zeal, civic leaders, artisans, and workers attacked religious images in the cities. Several waves of image destruction, called *iconoclasm*, resulted in great losses of works of art from earlier periods. And, as large areas of central Europe converted to the new confessions, art forms that had been the bread and butter for artists disappeared, as churches were whitewashed and religious commissions dried up. Artists in many media had to find new styles, new subjects, and new markets for their work.

Humanism and the new technology of printing played a vital role in the Reformation. The spirit of inquiry and respect for original texts inspired the writings of such famous intellectuals and teachers as Desiderius Erasmus of Rotterdam, Philip Melancthon in Germany, and Thomas More in England. Latin texts published in printed editions spread new ideas all over Europe. As a result, the printing press was an important factor in both the development and in the dispersion of Reform-

mation thought. Individual access to scripture was a fundamental tenet of the reformers, so they wanted good texts of the Bible and translations of it into vernacular languages. Luther himself translated the Bible into German. Printed images contributed to the spread of Reformation ideas; inexpensive woodcuts satirized the Catholic hierarchy while making heroes of the reformers. Prints also illustrated the tenets of the new faiths.

Grünewald's Isenheim Altarpiece

Yet not all regions of German-speaking Europe converted to the reformed faiths, and it was not until the 1520s that the Reformation took wide hold, so some traditional objects were created in the sixteenth century to serve Catholic patrons. One of the most memorable of these objects was an altarpiece executed by the painter Matthias Gothart Nithart, who was known for centuries only as Grünewald (ca. 1475–1528). This nickname was given to him by a seventeenth-century author; when German artists in the modern period began searching for roots, they discovered the artist through his nickname and it has stuck. Grünewald was born in Würzburg in central Germany and worked for the archbishop of Mainz. His most famous work is a transforming triptych called the *Isenheim Altarpiece*, similar in structure to the *St. Wolfgang Altarpiece* by Pacher (fig. 14.29). It was painted between 1509/10 and 1515 for the monastery church of the Order of St. Anthony at Isenheim, in Alsace, not far from the former abbey that now houses it in the city of Colmar.

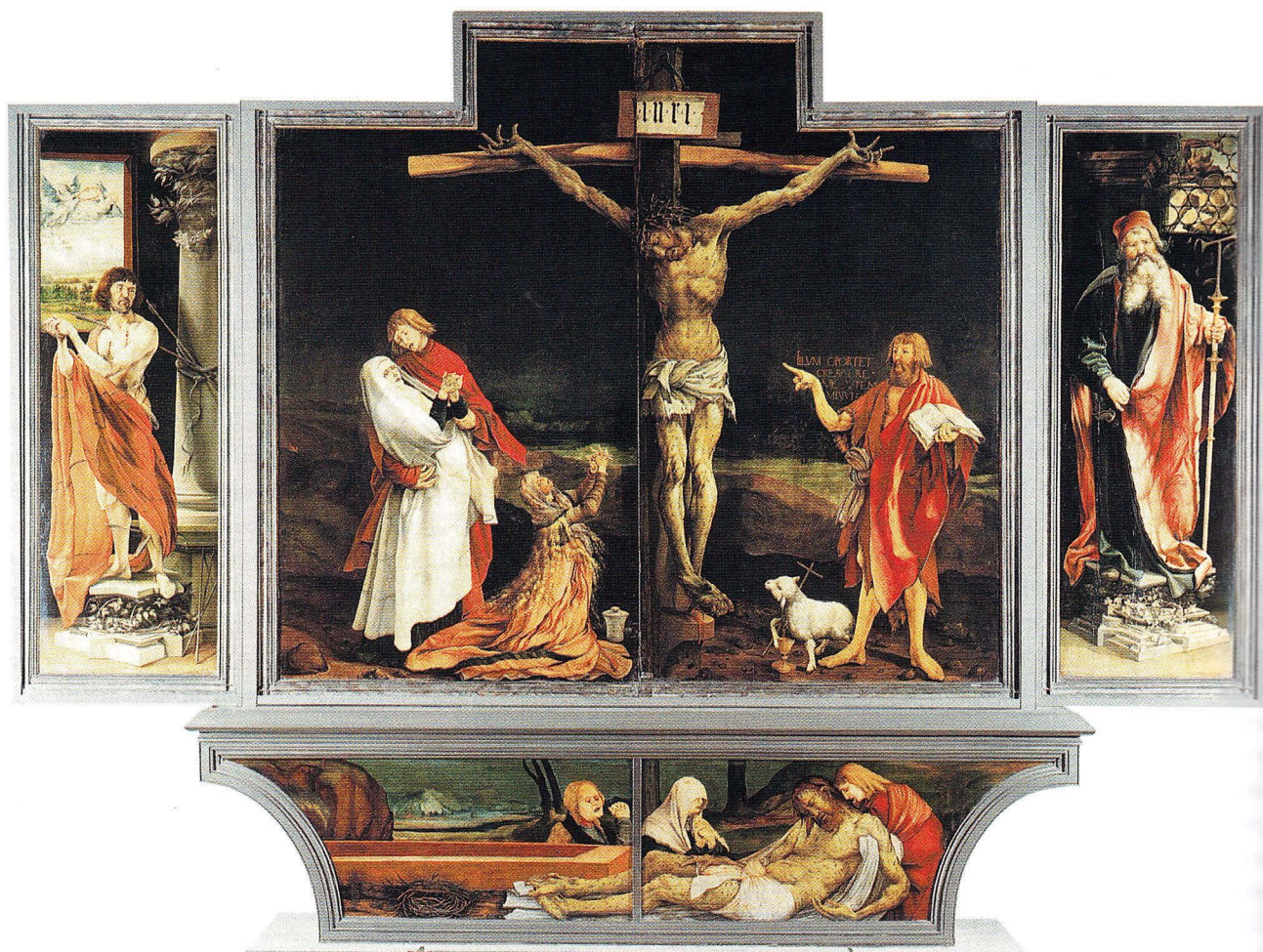
This church served the monks of this order and the patients of the hospital attached to their monastery. The monks specialized in tending people who suffered from a disease called St. Anthony's Fire, which was a disorder caused by eating spoiled rye. This disease produced painful symptoms, including intestinal disorders, gangrenous limbs, and hallucinations. Treatment consisted mostly of soothing baths and in some cases the amputation of limbs. The altarpiece stood on the high altar of the monastery church, where it would have been seen by both monks and the sick in the hospital. This extraordinary altarpiece encases a huge shrine carved in wood by Nicolas Hagenau around 1505. Enclosing the carved central section are nine panels organized in two sets of movable wings. These open in three stages or "views." The first of these views, when all the wings are closed, shows *The Crucifixion* in the center panel (fig. 18.13). This is the view that was visible during the week. The wings depict *St. Sebastian* (left), who was invoked against the plague (compare with fig. 15.52) and *St. Anthony Abbot* (right), who was revered as a healer. The central image of the *Crucifixion* draws on the late medieval tradition of the *Andachtsbild* (compare with fig. 12.56) to emphasize the suffering of Christ and the grief of his mother. The figure of Christ, with its twisted limbs, its many wounds, its streams of blood, matches the vision of the fourteenth-century mystic St. Bridget as described in her book of Revelations, which had been published in a German edition in 1501/02.

Grünewald renders the body on the cross on a heroic scale, so that it dominates the other figures and the landscape. The Crucifixion, lifted from its familiar setting, becomes a lonely event silhouetted against a ghostly landscape and a blue-black sky. Despite the darkness of the landscape, an eerie light bathes the foreground figures to heighten awareness of them. On the left, Mary's white garment enfolds her as she swoons at the sight of her tortured son; the red of St. John's robe accents her paleness. Below the cross, Mary Magdalen, identified by her ointment jar, kneels in grief to lament. On the right, John the Baptist points to the Crucified Christ with the words, "He must increase, and I must decrease," indicating the significance of Christ's sacrifice. Behind him a body of water recalls the healing power of baptism. The lamb at his feet bleeds into a chalice, as does the lamb in the central panel of the *Ghent Altarpiece* (fig. 14.12). The bleeding lamb is a reminder of the sacrament of the Eucharist, celebrated before the altarpiece. In the predella below, a tomb awaits the tormented body while his mother and friends bid farewell. The predella slides apart at Christ's knees, so victims of amputation may have seen their own suffering reflected in this image.

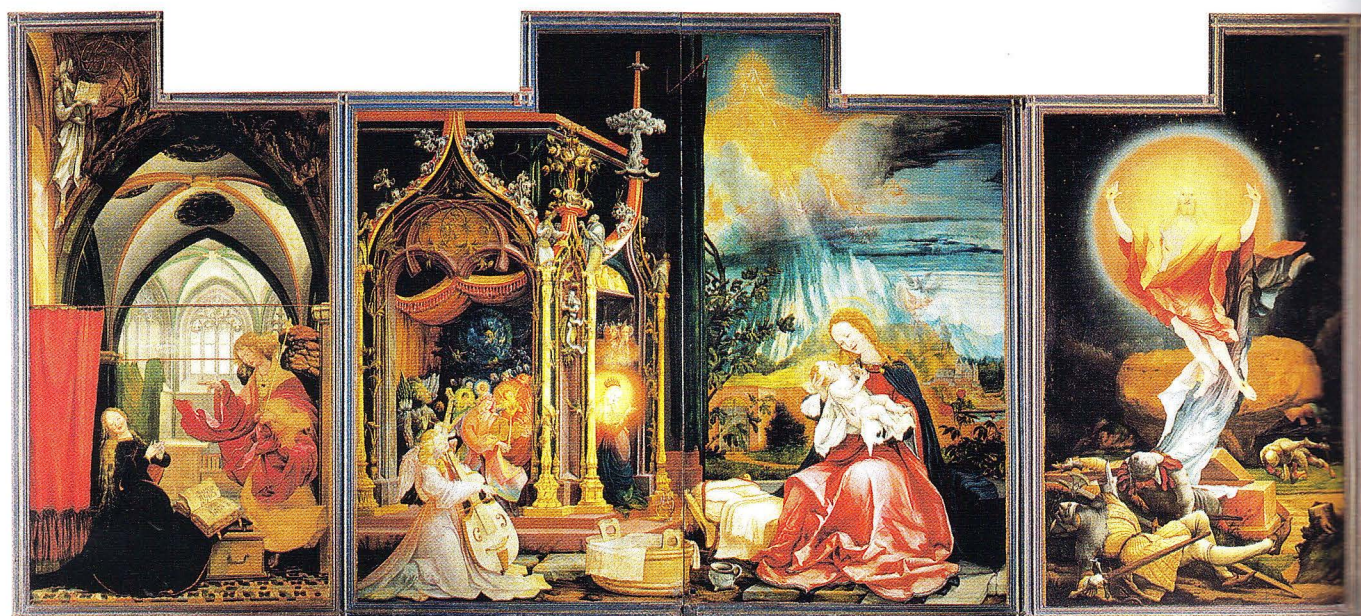
On Sundays and feastdays the outer wings were opened and the mood of the *Isenheim Altarpiece* changed dramatically (fig. 18.14). All three scenes in this second view—*The Annunciation*, the *Madonna and Child with Angels*, and *The Resurrection* (fig. 18.15)—celebrate events as jubilant as the Crucifixion is somber. Depicting the cycle of salvation, from the Incarnation to the Resurrection, this view of the altarpiece offered the afflicted a form of spiritual medicine while reminding them of the promise of heaven. Throughout these panels, Grünewald has rendered forms of therapy recommended for sufferers at the hospital: music, herbs, baths, and light. The contrast of the body of the dead Jesus in the predella with the Resurrected Christ in the right panel offers consolation to the dying.

Grünewald links the panels through color and composition. Reds and pinks in *The Annunciation* panel on the left are carried through the central panels to come to a crescendo with the brilliant colors surrounding the Risen figure of Christ on the right. The figure of the dead Jesus held by his mother and friends in the predella adds poignancy to the figure of the Child Jesus in his mother's arms in the central panel. The simple Gothic chapel in which the Annunciation takes place gives way in the next panel to a fanciful tabernacle housing choirs of angels who play stringed instruments and sing. Beneath that tabernacle appears a figure of the Virgin, crowned and glowing like a lit candle. The aureole surrounding this figure anticipates the brilliant figure of the Resurrected Christ in the right-hand panel, whose body seems to dissolve into light. The central image of the Madonna holding her child in a tender embrace gives way to a vision of heaven, also made of pure light.

These elements lead the eye to the right panel, where the body of Christ appears to float above the stone sarcophagus into which it had been placed in the predella. The guards set to watch the tomb are knocked senseless by the miracle. Their



18.13. Matthias Grünewald. *St. Sebastian; The Crucifixion; St. Anthony Abbot*; predella: *Lamentation*. *Isenheim Altarpiece* (closed). ca. 1509/10–1515. Oil on panel, main body 9'9½" × 10'9" (2.97 × 3.28 m), predella 2'5½" × 11'2" (0.75 × 3.4 m). Musée d'Unterlinden, Colmar, France



18.14. Matthias Grünewald. *The Annunciation; Madonna and Child with Angels; The Resurrection*. Second view of the *Isenheim Altarpiece*. ca. 1509/10–1515. Oil on panel, each wing 8'10" × 4'8" (2.69 × 1.42 m), center panel 8'10" × 11'2½" (2.69 × 3.41 m). Musée d'Unterlinden, Colmar, France



18.15. Matthias Grünewald. *The Resurrection*, from second view of the *Isenheim Altarpiece*. Musée d'Unterlinden, Colmar, France

figures, carefully arranged in a perspectival display, contrast to the weightless and transfigured body of Christ. He holds his hands up and allows the shroud to fall to reveal the wounds he suffered in death, now as brilliant as the halo that engulfs him. This figure differs dramatically from the figure on the Cross; his body bears no scars and the proportions are closer to the Italian ideal seen in Piero della Francesca's *Resurrection* (fig. 15.46).

Grünewald's strikingly individual approach to form is based on the traditions of the Northern European Renaissance established in the fifteenth century. His oil technique, his brilliant use of color, and the detailed rendering of objects draw from that tradition, but he must have learned from the Italian Renaissance too. The low horizon lines suggest a deep space for his fig-

ures and the rendering of the tomb from which Christ rises is a study in perspective. Yet Grünewald does not try to convince the viewer of the weight and substance of his figures; his aim is to create an emotional response with the impact of a vision.

Albrecht Dürer and the Northern Renaissance

The key figure for the Renaissance in Germany is Grünewald's contemporary Albrecht Dürer (1471–1528). Dürer's style was formed in the tradition of Northern European realism (which we explored in Chapter 14), but he delved deeply into the innovations and possibilities of Italian art. After training as a painter and printmaker in his native Nuremberg, Dürer traveled in Northern Europe and Venice in 1494/95 before returning home to start his career. His travels not only expanded his visual repertoire, but changed his view of the world and the artist's place in it. (He returned to Italy in 1505.) Dürer adopted the ideal of the artist as a gentleman and humanistic scholar, and took the Italian view that the fine arts belong among the liberal arts, as artists like Mantegna and Alberti had argued (see Chapter 15). By cultivating his artistic and intellectual interests, Dürer incorporated into his work an unprecedented variety of subjects and techniques. His painting technique owes much to the Flemish masters, but making copies of Italian works taught him many of the lessons of the Italian Renaissance. He was able to synthesize these traditions in his paintings and prints. As the greatest printmaker of the time, he had a wide influence on sixteenth-century art through his woodcuts and engravings, which circulated all over Europe. His prints made him famous and wealthy—so much so that he complained about the relatively poor reward he earned for his paintings.

Dürer's debt to the legacy of Jan van Eyck and Rogier van der Weyden is clear in the many drawings and watercolors he made in preparation for his works. The watercolor of the *Hare* he made in 1502 (fig. 18.16) demonstrates the clarity of his vision and the sureness of his rendering. This small representative of the natural world was treated with the dignity due to Nature herself, much as Van Eyck had painted the small dog in the foreground of *The "Arnolfini Portrait"* (fig. 14.16). Dürer uses the watercolor technique to render each hair of the fur, the curve of the ears, the sheen on the eyes. His monogram at the base of the page identifies Dürer as the creator of this image; this monogram was the signature he used on his mature prints.

Dürer's ability as a draftsman also informed his work as a printmaker. Having been trained in both woodcut and engraving, he pushed the limits of both media. As a mass medium, prints were not commissioned by individual patrons, but were made for the open market, so Dürer had to invest his own time and materials in these projects. This entrepreneurial spirit served him well, as his prints sold widely and quickly. Signs and portents, such as the threat of invasion by the Turks and the birth of malformed animals, worried Europeans as they awaited the approach of the year 1500. As this year approached, many people believed that the Second Coming of Christ was imminent, and prepared for the Millennium. Thus, with an eye

to the market for things pertaining to popular fears about the end of time, Dürer produced a woodcut series illustrating the Apocalypse in 1498. This series was his most ambitious graphic work in the years following his return from Italy. The gruesome vision of *The Four Horsemen of the Apocalypse* (fig. 18.17) offers the viewer a frightening visualization of the text of the book of Revelation. The image depicts War, Fire, Famine, and Death overrunning the population of the Earth. During his trip to Italy in 1494, Dürer had encountered prints by Mantegna, which he carefully copied. He especially admired the sculptural quality Mantegna achieved in paintings like the St. Sebastian (fig. 15.52). The physical energy and full-bodied volume of the figures in the Apocalypse woodcuts series is partly owed to Dürer's experience of Italian art, although he eliminates logical space in favor of an otherworldly flatness. Dürer has redefined his medium—the woodcut—by enriching it with the linear devices of engraving. Instead of the broad contours and occasional hatchings used to define form in earlier woodcuts, Dürer's wide range of hatching marks, varied width of lines, and strong contrasts of black and white give his woodcuts ambitious pictorial effects. (Compare, for example, the Buxheim St. Christopher of 1425 shown in fig. 14.30 with Dürer's woodcuts.) He set a standard that soon transformed the technique of woodcuts all over Europe.

Dürer's fusion of Northern European and Italian traditions is apparent in his engraving entitled *Adam and Eve* of 1504 (fig. 18.18), for which the watercolor *Hare* was a preliminary study. Here the biblical subject allows him to depict the first parents as two ideal nudes: Apollo and Venus in a densely wooded forest. Unlike the picturesque setting and the animals in it, Adam and Eve are not observed from life; they are constructed according to what Dürer believed to be perfect proportions based on Vitruvius (see *Primary Source*, page 637). Once again, Dürer enlarged the vocabulary of descriptive marks an engraver could use: The lines taper and swell; they intersect at varying angles; marks start and stop and dissolve into dots, called *stipples*. The result is a monochrome image with a great tonal and textural range. The choice of animals that populate the Garden is very deliberate: The cat, rabbit, ox, and elk have been interpreted as symbols of the medieval theory that bodily fluids, called humors, controlled personality. The cat represents the choleric humor, quick to anger; the ox the phlegmatic humor, lethargic and slow; the elk stands for the melancholic humor, sad and serious; and the rabbit for the sanguine, energetic and sensual. In this moment before the fall, the humors coexist in balance and the humans retain an ideal beauty. The composition itself is balanced and unified by the tonal effects. Dürer's print, which he signed prominently on the plaque by Adam's head, was enormously influential. His ideal male and female figures became models in their own right to countless other artists.

18.17. Albrecht Dürer. *The Four Horsemen of the Apocalypse*. 1498. Woodcut, $15\frac{1}{2} \times 11\frac{1}{8}$ " (39.3 × 28.3 cm). The Metropolitan Museum of Art, New York. Gift of Junius S. Morgan, 1919



18.16. Albrecht Dürer. *Hare*. 1502. Watercolor. $9\frac{7}{8} \times 8\frac{7}{8}$. Albertina, Vienna



Albrecht Dürer (1471–1528)

From the draft manuscript for *The Book on Human Proportions*

Dürer made two trips to Italy and was exposed to the new art theories being discussed there, which impressed him greatly. He did not accept them uncritically, however. His rethinking of Italian ideas often appears only in preliminary form, in drafts such as this one, written in 1512–1513.

How beauty is to be judged is a matter of deliberation. . . . In some things we consider that as beautiful which elsewhere would lack beauty. “Good” and “better” in respect of beauty are not easy to discern, for it would be quite possible to make two different figures, neither of them conforming to the other, one stouter and the other thinner, and yet we scarce might be able to judge which of the two may excel in beauty. What beauty is I know not, though it adheres to many things. When we wish to bring it into our work we find it very hard. We must gather it together from far and wide, and especially in the case of the human figure. . . . One may often search through two or three hundred men without finding amongst them

more than one or two points of beauty which can be made use of. You therefore, if you desire to compose a fine figure, must take the head from some and the chest, arm, leg, hand, and foot from others. . . .

Many follow their taste alone; these are in error. Therefore let each take care that his inclination blind not his judgment. For every mother is well pleased with her own child. . . .

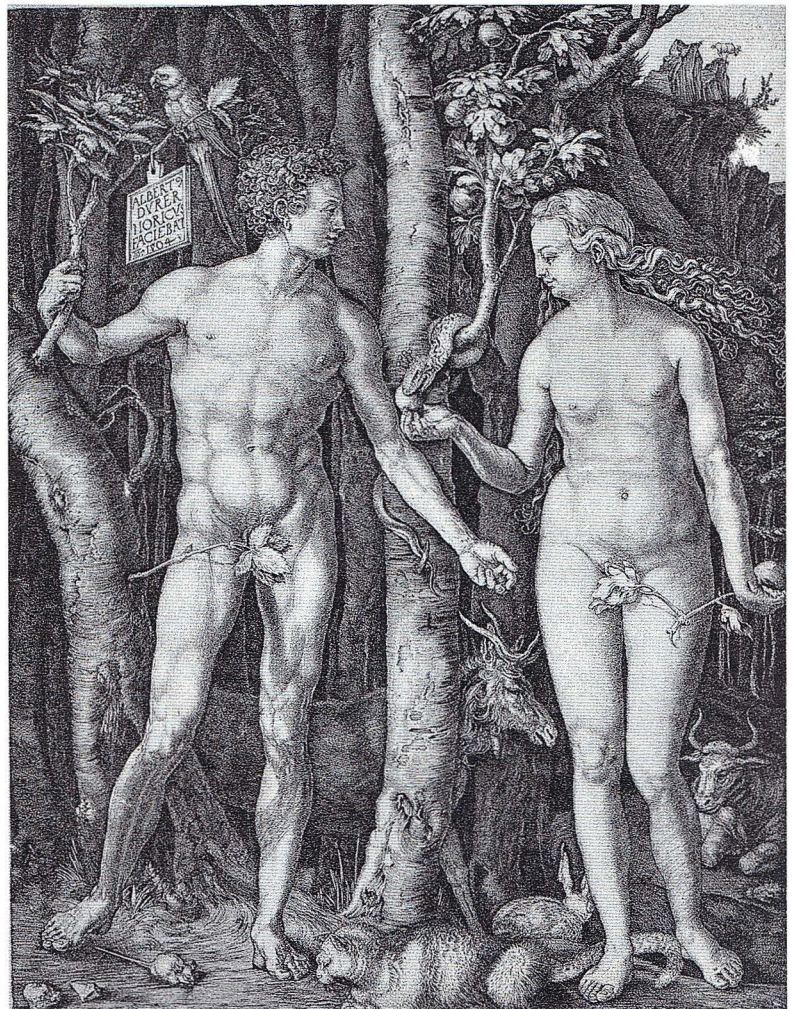
Men deliberate and hold numberless differing opinions about these things and they seek after them in many different ways, although the ugly is more easily attained than the beautiful. Being then, as we are, in such a state of error, I know not how to set down firmly and with finality what measure approaches absolute beauty. . . .

It seems to me impossible for a man to say that he can point out the best proportions for the human figure; for the lie is in our perception, and darkness abides so heavily within us that even our gropings fail. . . .

However, because we cannot altogether attain perfection, shall we therefore wholly cease from our learning? This bestial thought we do not accept. For evil and good lie before men, wherefore it behooves a rational man to choose the better.

SOURCE: THE WRITINGS OF ALBRECHT DÜRER. TR. AND ED. BY WILLIAM MARTIN CONWAY. (NY: PHILOSOPHICAL LIBRARY, 1958)

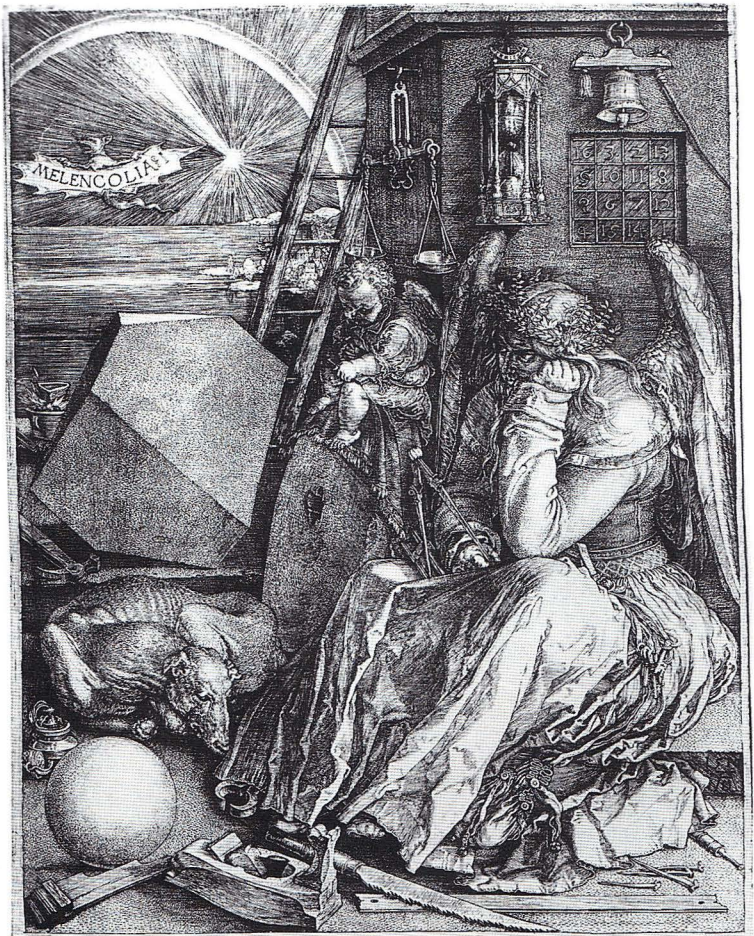
18.18. Albrecht Dürer. *Adam and Eve*. 1504. Engraving, $9\frac{7}{8}'' \times 7\frac{5}{8}''$ (25.2 × 19.4 cm). Museum of Fine Arts, Boston. Centennial gift of Landon T. Clay





18.19. Albrecht Dürer. *Self-Portrait*. 1500. Oil on panel, $26\frac{1}{4} \times 19\frac{1}{4}$ " (66.3 × 49 cm). Alte Pinakothek, Munich

18.20. Albrecht Dürer. *Melencolia I*. 1514. Engraving, $9\frac{3}{8} \times 7\frac{1}{2}$ " (23.8 × 18.9 cm). Victoria and Albert Museum, London



IMAGES ABOUT ARTISTRY Although best known for his prints, Dürer was also a gifted draftsman and skilled painter. One of his earliest works, a drawing made at 13, is a self-portrait that foreshadowed his fascination with his own image throughout his career. Most impressive, and very revealing, is the painted *Self-Portrait* of 1500 (fig. 18.19). In pictorial terms, it belongs to the Flemish tradition of Jan van Eyck's *Man in a Red Turban* (see fig. 14.15), but the solemn pose and the idealization of the features have an authority not found in most portraits up to this time. Instead of a conventional three-quarters pose, Dürer places himself frontally in the composition, a pose usually reserved for images of the divine. The panel looks, in fact, like a secularized icon, for it is patterned after images of Christ. It reflects both Dürer's deep piety and the seriousness with which he viewed his mission as an artist and intellectual.

The status of the artist may also be the theme of one of Dürer's most famous and puzzling prints. This is an engraving labeled *Melencolia I* (fig. 18.20), one of a trio of prints that Dürer sold or gave away together. Dated 1514, the image represents a winged female holding a compass, surrounded by the tools of the mathematician and the artist. She holds the tools of geometry, yet is surrounded by chaos. The figure is probably a

personification, though her identity is controversial: Is she Melancholy? Is she Geometry? Is she Genius? Her face in shadow, she sits in a pose long associated with melancholy, which itself was associated with intellectual activity and creative genius. Compare her pose to Raphael's depiction of Michelangelo as Heraclitus in *The School of Athens* (fig. 16.25). Like Raphael, Dürer shrouds the face of Genius in shadow, as though the figure is lost in thought. Dürer's figure thinks but cannot act, while the infant scrawling on the slate, symbolizing practical knowledge, can act but not think. Dürer makes a statement here about the artistic temperament and its relationship to the melancholic humor.

The Italian Humanist Marsilio Ficino viewed melancholia (to which he was himself subject) as the source of divine inspiration. He tied it to Saturn, the Mind of the World, which, as the oldest and highest of the planets, he deemed superior even to Jupiter, the Soul of the World. His notion of the melancholic genius was widespread in Dürer's time, and the printmaker includes details that make reference to Saturn, to Jupiter, to divine inspiration, and to geometric theory. The print claims for the visual artist (and perhaps for Dürer himself?) the status of divinely inspired, if melancholic, genius.

A REFORMATION ARTIST Dürer became an early and enthusiastic follower of Martin Luther, although, like Grünewald, he continued to work for Catholic patrons. His new faith can be sensed in the growing austerity of style and subject in his religious works after 1520. The climax of this trend is represented by *The Four Apostles* (fig. 18.21). These paired panels have rightly been termed Dürer's artistic testa-

ment. He presented them in 1526 to the city of Nuremberg, which had joined the Lutheran camp the year before. These four men are fundamental to Protestant doctrine. John and Paul, Luther's favorite authors of Scripture, face one another in the foreground, with Peter and Mark behind. Quotations from their writings, inscribed below in Luther's translation, warn the city not to mistake human error and pretense for the will of



18.21. Albrecht Dürer. *The Four Apostles*. 1523–1526. Oil on panel, each 7'1" × 2'6" (2.16 × .76 m). Alte Pinakothek, Munich



18.22. Lucas Cranach the Elder. *An Allegory of Law and Grace*. ca. 1530. Woodcut, $10\frac{5}{8} \times 1\frac{3}{4}$ " (27 × 32.4 cm). British Museum, London

God. They plead against Catholics and Protestant radicals alike. But in another, more universal sense, the figures represent the Four Temperaments and, by implication, the other cosmic quartets—the seasons, the elements, the times of day, and the ages of life. The apostles have a sculptural solidity that brings to mind Nanni di Banco's *Quattro Coronati* (fig. 15.5). The heavily draped figures have the weight and presence of Raphael's figures in the tapestry cartoon of *Saint Paul Preaching in Athens* (fig. 16.27), which Dürer probably saw on a trip to the Netherlands in 1521. Through the power of his paintings, the portable medium of prints and his workshop, Dürer was the most influential artist of sixteenth-century Germany.

Religious and Courtly Images in the Era of Reform

The realignment of German culture and society produced by the Reformation required artists to adapt their styles and subject matters for the reformed faiths. Prints were an important tool for spreading the tenets of the Protestant confessions. For courtly patrons, artists made images on classicizing themes, for

which they used local visual traditions that emphasized detail, texture, and the natural world.

In Reformation Germany, painters had to contend with the Protestant leaders' ambivalence toward religious images. When a faith places the Word above the Image, the image becomes subordinate to the text; though Luther himself tolerated images (see end of Part III, *Additional Primary Sources*), the works that most deliberately address Lutheran themes are often literal illustrations of texts.

LUCAS CRANACH: REFORMER AND COURT ARTIST

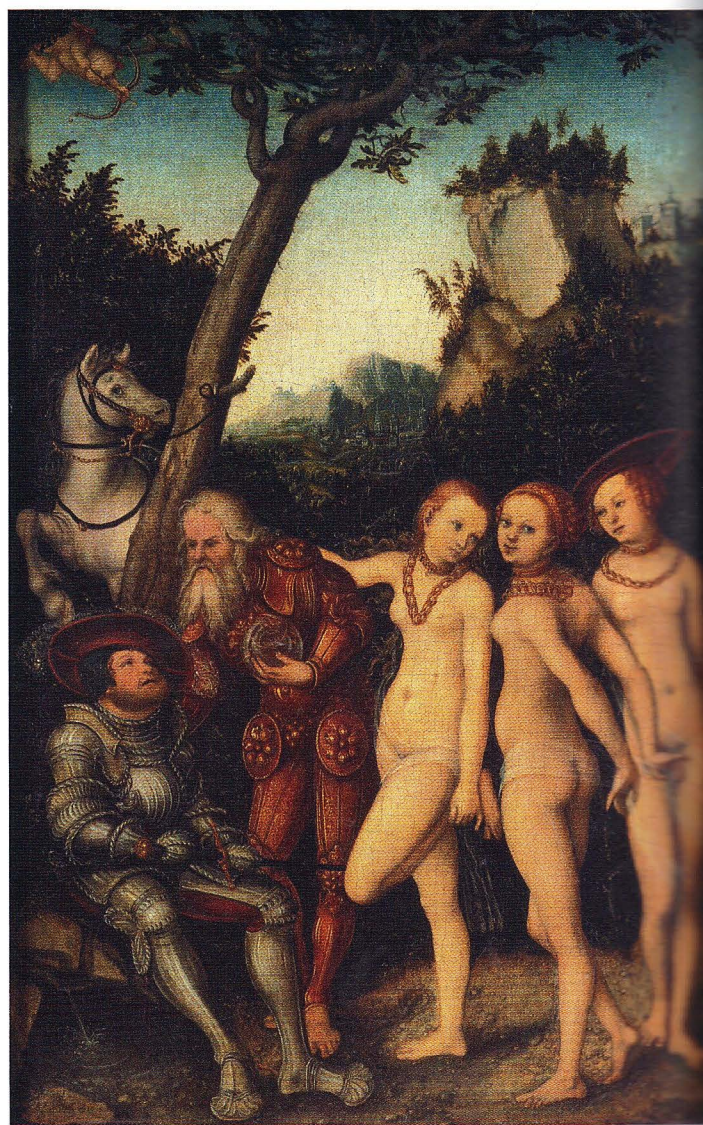
Lucas Cranach the Elder (1472–1553), a close friend of Martin Luther, attempted to solve the problem of casting Luther's doctrines into visual form. Cranach made numerous prints and paintings to express the tenets of the reform. A woodcut of ca. 1530 entitled *An Allegory of Law and Grace* (fig. 18.22) contrasts the difference between the fate of a Catholic and a Lutheran. The left side depicts the Catholic doctrine that the children of Adam and Eve, stained by original sin, must perform specific deeds according to the Law of Moses; when this is unsuccessful, the soul is consigned to hell at the Last Judgment. The right side

depicts the believer washed in the blood of Christ's Crucifixion; faith in Christ alone is needed to assure salvation, which is Luther's position. Compared to the complexity of Dürer's woodcuts, this image is rather simple and straightforward, without complex tonalities, illusions of space, or an emphasis on textures. Cranach makes the image almost as legible and accessible as the text.

In addition to images with Lutheran content, Cranach excelled in portraits and mythological scenes painted for aristocratic patrons, both Catholic and Protestant, in Saxony and elsewhere in Germany. In *The Judgment of Paris* (fig. 18.23) of 1530, Cranach retells a story from Greek mythology in which the Trojan prince Paris selects the most beautiful goddess of Olympus. He depicts Paris as a German knight clad in the fashionable armor of the nobles at the court of Saxony. The sinewy figures of the goddesses are displayed for the judgment of the prince, who confides his choice to Mercury, also dressed in armor. Like many of his Italian contemporaries working for aristocratic patrons, Cranach gives his Classical subject an overtly erotic appeal, inviting a viewer to identify with Paris as the privileged observer of the female nudes. Yet the detailed, miniaturistic technique and the weightless bodies of the women are distinctive to Cranach. One of the striking features here is the landscape, whose lush vegetation recalls Dürer's *Adam and Eve* (fig. 18.18), though Cranach exaggerates its foliage into a sensual fantasy of natural beauty.

ALTDORFER'S BATTLE OF ISSUS Both Cranach and Dürer played a critical role in the development of the Danube School of landscape painting, which appeared in southern Germany and Austria in the first half of the sixteenth century. The key figure in this school, however, was Albrecht Altdorfer (ca. 1480–1538), a slightly younger artist who spent most of his career in Bavaria. Although he made prints and paintings on a variety of themes, Altdorfer's work is dominated by his fascination with landscape, which he used to great expressive effect. His most famous work is *The Battle of Issus* (fig. 18.24). The painting, made in 1529, is one of a series of images depicting the exploits of historic heroes, commissioned for the Munich palace of William IV, Duke of Bavaria. In a sweeping landscape, Altdorfer depicts Alexander the Great's victory over Darius of Persia, which took place in 333 BCE at Issus. This victory was the subject of a composition attributed to the Greek painter Apelles, preserved in a mosaic at Pompeii (fig. 5.79). To make the subject clear, Altdorfer provided an explanatory text on the tablet suspended in the sky, inscriptions on the banners (probably written by the Regensburg court Humanist, Aventinus), and a label on Darius's fleeing chariot. The artist has tried to follow ancient descriptions of the actual number and kind of combatants in the battle and to record the geography of the Mediterranean.

Altdorfer adopts an omniscient point of view, as if looking down on the action from a great height to fit everything into the picture. From this planetary perspective, a viewer must search to find the two leaders lost in the antlike mass of their



18.23. Lucas Cranach the Elder. *The Judgment of Paris*. 1530. Oil on panel, $13\frac{1}{2} \times 9\frac{1}{2}$ " (34.3 × 24.2 cm). Staatliche Kunsthalle, Karlsruhe, Germany

own armies. The drama of Nature is more elaborated than the human actors: One can almost feel the rotation of the globe as the sun sets in the distance and the moon rises. The curve of the earth, the drama of the clouds, the craggy mountain peaks overwhelm the mass of humanity. Such details suggest that the events portrayed have an earth-shaking importance, which arguably, was the case for this historical event. However, the soldiers' armor and the fortified town in the distance are unmistakably of the sixteenth century, which encourages us to look for contemporary significance. The work was executed at the moment the Ottoman Turks were trying to invade Vienna after gaining control over much of Eastern Europe. (Though the imperial forces repelled the Turks this time, they were to threaten Europe repeatedly for another 250 years.) Altdorfer's image suggests that the contemporary battle between Europeans and Turks has the same global significance as Alexander's battle with Darius.



18.24. Albrecht Altdorfer. *The Battle of Issus*. 1529. Oil on panel, 62 × 47" (157.5 × 119.5 cm). Alte Pinakothek, Munich



18.25. Hans Baldung Grien. *Death and the Maiden*. ca. 1510. Oil on panel, $15\frac{3}{4} \times 12\frac{3}{4}$ " (40 × 32.4 cm). Kunsthistorisches Museum, Vienna

Painting in the Cities: Humanist Themes and Religious Turmoil

Cities along the Rhine River, especially Strasbourg and Basel, were centers of commerce, publishing, and humanism. The ancient city of Strasbourg's commercial success was due to its location and its industry. Further down the Rhine, Basel had a university as well as an early printing press. It was in Basel that Sebastian Brant's *Ship of Fools* was published in 1494 (see fig. 14.33). As elsewhere, the spread of the Reformation and Humanist ideas to these cities profoundly affected the arts, visible in the work of Hans Baldung Grien and Hans Holbein.

HUMANISM AND MORALITY: HANS BALDUNG GRIEN'S DEATH AND THE MAIDEN The impact of humanism on German artists may be seen in the work of the painter and printmaker Hans Baldung Grien (1484/85–1545). This former apprentice of Dürer spent much of his career in Strasbourg. Although he made some religious works, Baldung Grien made numerous secular images that explore themes of

witchcraft, magic, and death. A characteristic example is his *Death and the Maiden* (fig. 18.25) of about 1510. The painting depicts a self-absorbed, nude young woman who stares at her reflection in a mirror, while the skeletal figure of Death holds an hourglass triumphantly over her head. The young woman's companions are versions of herself at different ages: A child plays with the diaphanous veil that wraps around the woman, and an elderly woman moves abruptly to ward off death. The three ages of life—infancy, adulthood, old age—are visible in the mirror. Yet, although the three heads stare out forlornly at the young woman, she obliviously toys with her long hair. The young woman personifies the vice of Vanity, which must give way to death. Images of the fragility of beauty and the inevitability of death—called Vanitas emblems—were quite popular in a time when sudden death was frequent. Baldung's sources for this image include Dürer's Eve from the *Adam and Eve* engraving and Jan van Eyck's representations of mirrors (see fig. 14.16). The landscape has the lush fantastic quality that also appears in Cranach's work. Although the patron for this image is not known, its imagery allows a viewer to meditate on the proximity of death while enjoying the spectacle presented by the display of the young woman's body.

HANS HOLBEIN IN REFORMATION BASEL The son of a painter, Hans Holbein the Younger (1497–1543) was born and raised in Augsburg, but it was in Basel that Holbein sought to make his career. Basel, in what is now Switzerland, was another center of learning, publishing, and commerce. By 1520, Holbein was established there as a painter and a designer of woodcuts. He had also become a member of the Humanist circle that included the writer Desiderius Erasmus (1466–1536).

Holbein took Dürer as his point of departure, but he developed his own distinctive style informed by Netherlandish realism and Italian compositional techniques. He is best known for his portraits, such as the likeness of *Erasmus of Rotterdam* (fig. 18.26). This was painted soon after the famous author had settled in Basel. Erasmus was one of the most prolific Humanists of the era, who corresponded with many of the leading thinkers of his day. Holbein's portrait reflects Erasmus's authority and status. Holbein depicts the scholar in profile busily engaged in the act of writing. This kind of profile view had been popular during the Early Renaissance in Italy (see fig. 15.47), although Holbein depicts the sitter in action. Even while using an older Italian format, Holbein renders the figure and his setting with an eye for realistic detail. The composition is simple to keep the focus on the concentration of the sitter. A representation of the very ideal of the scholar, this portrait of Erasmus exudes a calm rationality that lends him an intellectual authority formerly reserved for doctors of the Church. The similarity is probably intentional. Erasmus greatly admired St. Jerome, who translated the Bible into Latin (called the Vulgate) and who was the role model for Erasmus' own great work: the production of a printed edition of the Bible that included a Greek text and his own fresh Latin translation. This edition by Erasmus appeared in Basel in 1516 and was used by Luther to produce his German translation.



1826. Hans Holbein the Younger. *Erasmus of Rotterdam*. ca. 1523. Oil on panel, $16\frac{1}{2} \times 12\frac{1}{2}$ " (42×31.4 cm). Musée du Louvre, Paris

The spread of the Reformation disrupted the Humanist circle in Basel. By 1525, followers of Zwingli preached the sole authority of Scripture, while more radical reformers preached that images were idols. To escape this climate, Holbein sought employment elsewhere. He had traveled to France in 1523–1524, perhaps intending to offer his services to Francis I. Hoping for commissions at the court of Henry VIII, Holbein went to England in 1527. He presented the portrait of Erasmus as a gift to the humanist Thomas More, who became his first patron in London. Erasmus, in a letter recommending Holbein to More, wrote: "Here [in Basel] the arts are out in the cold." By 1528, when Holbein returned to Basel, violence had replaced rhetoric. He witnessed Protestant mobs destroying religious images, a scene Erasmus described in a letter: "Not a statue has been left in the churches . . . or in the monasteries; all the frescoes have been whitewashed over. Everything which would burn has been set on fire, everything else hacked into little pieces. Neither value nor artistry prevailed to save anything." Holbein resolved to return to London.

ENGLAND: REFORMATION AND POWER

Holbein's patron in England was the ambitious Henry VIII, who reigned from 1509 to 1547. Henry wanted England to be a power broker in the conflicts between Francis I of France and the Emperor Charles V, although his personal situation complicated these efforts. Married to Catherine of Aragon in

ART IN TIME

1502—Peter Henlein of Nuremberg invents pocket watch

ca. 1509—Grünwald's *Isenheim Altarpiece*

1521—Diet of Worms condemns Luther

1525—Peasants' War ignited by Reformation

1526—Albrecht Dürer's *Four Apostles* presented to city of Nuremberg

1555—Peace of Augsburg between Catholics and Lutherans

1509, twenty years later Henry was seeking to annul their union, for they had failed to produce a male heir to the throne. Thwarted by the Catholic Church, he broke away from Catholicism and established himself as the head of the Church of England. His desire for a male heir to the throne led Henry into a number of marriages, most of which ended either in divorce or in the execution of his wife. He had three children, who succeeded him as Edward VII, Mary I, and Elizabeth I.

Holbein's *Henry VIII* (fig. 18.27) of 1540 captures the supreme self-confidence of the king. He uses the rigid frontality that Dürer had chosen for his self-portrait to convey the almost divine authority of the absolute ruler. The king's physical bulk creates an overpowering sense of his ruthless, commanding personality. The portrait shares with Bronzino's *Eleanora of Toledo* (fig. 17.7) an immobile pose, an air of unapproachability, and the



1827. Hans Holbein the Younger. *Henry VIII*. 1540. Oil on panel. $32\frac{1}{2} \times 29$ " (82.6×74.5 cm). Galleria Nazionale d'Arte Antica, Rome

Glossary

ABACUS. A slab of stone at the top of a Classical capital just beneath the architrave.

ABBEY. (1) A religious community headed by an abbot or abbess. (2) The buildings that house the community. An abbey church often has an especially large choir to provide space for the monks or nuns.

ACADEMY. A place of study, the word coming from the Greek name of a garden near Athens where Plato and, later, Platonic philosophers held philosophical discussions from the 5th century BCE to the 6th century CE. The first academy of fine arts was the Academy of Drawing, founded 1563 in Florence by Giorgio Vasari. Later academies were the Royal Academy of Painting and Sculpture in Paris, founded 1648, and the Royal Academy of Arts in London, founded 1768. Their purpose was to foster the arts by teaching, by exhibitions, by discussion, and occasionally by financial aid.

ACANTHUS. (1) A Mediterranean plant having spiny or toothed leaves. (2) An architectural ornament resembling the leaves of this plant, used on moldings, friezes, and Corinthian capitals.

ACROTHERION (pl. **ACROTHERIA**). Decorative ornaments placed at the apex and the corners of a pediment.

ACRYLIC. A plastic binder medium for pigments that is soluble in water. Developed about 1960.

ACTION PAINTING. In Abstract art, the spontaneous and uninhibited application of paint, as practiced by the avant-garde from the 1930s through the 1950s.

AERIAL PERSPECTIVE. See *perspective*.

AISLE. The passageway or corridor of a church that runs parallel to the length of the building. It often flanks the nave of the church but is sometimes set off from it by rows of piers or columns.

ALBUMEN PRINT. A process in photography that uses the proteins found in eggs to produce a photographic plate.

ALLA PRIMA. A painting technique in which pigments are laid on in one application with little or no underpainting.

ALTAR. A mound or structure on which sacrifices or offerings are made in the worship of a deity. In a Catholic church, a tablelike structure used in celebrating the Mass.

ALTARPIECE. A painted or carved work of art placed behind and above the altar of a Christian church. It may be a single panel or a *triptych* or a *polytych*, both having hinged wings painted on both sides. Also called a *reredos* or *retablo*.

ALTERNATE SYSTEM. A system developed in Romanesque church architecture to provide adequate support for a *groin-vaulted nave* having *bays* twice as long as the side-aisle bays. The *piers* of the nave arcade alternate in size; the heavier *compound piers* support the main nave vaults where the *thrust* is concentrated, and smaller, usually cylindrical, piers support the side-aisle vaults.

AMAZON. One of a tribe of female warriors said in Greek legend to dwell near the Black Sea.

AMBULATORY. A covered walkway. (1) In a basilican church, the semicircular passage around the apse. (2) In a central-plan church, the ring-shaped aisle around the central space. (3) In a cloister, the covered colonnaded or arcaded walk around the open courtyard.

AMPHITHEATER. A double theater. A building, usually oval in plan, consisting of tiers of seats and access corridors around the central theater area.

AMPHORA (pl. **AMPHORAE**). A large Greek storage vase with an oval body usually tapering toward the base. Two handles extend from just below the lip to the shoulder.

ANDACHTSBILD. German for "devotional image." A picture or sculpture with imagery intended for private devotion. It was first developed in Northern Europe.

ANIMAL STYLE. A style that appears to have originated in ancient Iran and is characterized by stylized or abstracted images of animals.

ANNULAR. From the Latin word for "ring." Signifies a ring-shaped form, especially an annular barrel vault.

ANTA (pl. **ANTAE**). The front end of a wall of a Greek temple, thickened to produce a pilasterlike member. Temples having columns between the antae are said to be "*in antis*."

APOCALYPSE. The Book of Revelation, the last book of the New Testament. In it, St. John the Evangelist describes his visions, experienced on the island of Patmos, of Heaven, the future of humankind, and the Last Judgment.

APOSTLE. One of the twelve disciples chosen by Jesus to accompany him in his lifetime and to spread the gospel after his death. The traditional list includes Andrew, Bartholomew, James the Greater (son of Zebedee), James the Lesser (son of Alphaeus), John, Judas Iscariot, Matthew, Peter, Philip, Simon the Canaanite, Thaddaeus (or Jude), and Thomas. In art, however, the same twelve are not always represented, since "apostle" was sometimes applied to other early Christians, such as St. Paul.

APSE. A semicircular or polygonal niche terminating one or both ends of the nave in a Roman basilica. In a Christian church, it is usually placed at the east end of the nave beyond the transept or choir. It is also sometimes used at the end of transept arms.

APSIDIOLE. A small apse or chapel connected to the main apse of a church.

AQUATINT. A print processed like an etching, except that the ground or certain areas are covered with a solution of asphalt, resin, or salts that, when heated, produces a granular surface on the plate and rich gray tones in the final print. Etched lines are usually added to the plate after the aquatint ground is laid.

AQUEDUCT. Latin for "duct of water." (1) An artificial channel or conduit for transporting water from a distant source. (2) The overground structure that carries the conduit across valleys, rivers, etc.

ARCADE. A series of arches supported by piers or columns. When attached to a wall, these form a blind arcade.

ARCH. A curved structure used to span an opening. Masonry arches are generally built of wedge-shaped blocks, called *voussoirs*, set with their narrow sides toward the opening so that they lock together. The topmost *voussoir* is called the *keystone*. Arches may take different shapes, such as the pointed Gothic arch or the rounded Classical arch.

ARCHBISHOP. The chief bishop of an ecclesiastical district.

ARCHITECTURAL ORDER. An architectural system based on the column and its entablature, in which the form of the elements themselves (capital, shaft, base, etc.) and their relationship to each other are specifically defined. The five Classical orders are the Doric, Ionic, Corinthian, Tuscan, and Composite.

ARCHITRAVE. The lowermost member of a classical entablature, such as a series of stone blocks that rest directly on the columns.

ARCHIVOLT. A molded band framing an arch, or a series of such bands framing a tympanum, often decorated with sculpture.

ARCUTION. The use of arches or a series of arches in building.

ARIANISM. Early Christian belief, initiated by Arius, a 4th-century CE priest in Alexandria. It was later condemned as heresy and suppressed, and it is now largely obscure.

ARRICCIO. A coating of rough plaster over a stone or cement wall that is used as a smooth base or ground (support) in fresco painting.

ART BRUT. Meaning "raw art" in French, *art brut* is the direct and highly emotional art of children and the mentally ill that served as an inspiration for some artistic movements in Modern art.

ASHLAR MASONRY. Carefully finished stone that is set in fine joints to create an even surface.

ATRIUM. (1) The central court or open entrance court of a Roman house. (2) An open court, sometimes colonnaded or arcaded, in front of a church.

ATTIC. A low upper story placed above the main cornice or entablature of a building and often decorated with windows and pilasters.

AUTOCHROME. A color photograph invented by Louis Lumière in 1903 using a glass plate covered with grains of starch dyed in three colors to act as filters and then a silver bromide emulsion.

AUTOMATIC DRAWING. A technique of drawing in Modern art whereby the artist tries to minimize his or her conscious and intellectual control over the lines or patterns drawn, relying instead on subconscious impulses to direct the drawing.

AVANT-GARDE. Meaning "advance force" in French, the artists of the avant-garde in 19th- and 20th-century Europe led the way in innovation in both subject matter and technique, rebelling against the established conventions of the art world.

BACCHANT (fem. **BACCHANTE**). A priest or priestess of the wine god, Bacchus (in Greek mythology, Dionysus), or one of his ecstatic female followers, who were sometimes called *maenads*.

BALDACCHINO. A canopy usually built over an altar. The most important one is Bernini's construction for St. Peter's in Rome.

BALUSTRADE. (1) A railing supported by short pillars called balusters. (2) Occasionally applied to any low parapet.

BANQUET PIECE. A variant of the still life, the banquet piece depicts an after-meal scene. It focuses more on tableware than food and typically incorporates a *vanitas* theme.

BAPTISTRY. A building or a part of a church in which the sacrament of baptism is administered. It is

often octagonal in design, and it contains a baptismal font, or a receptacle of stone or metal that holds the Holy Water for the rite.

BARREL VAULT. A vault formed by a continuous semicircular arch so that it is shaped like a half-cylinder.

BAR TRACERY. A style of tracery in which glass is held in place by relatively thin membranes.

BAS-DE-PAGE. Literally "bottom of the page." An illustration or decoration that is placed below a block of text in an illuminated manuscript.

BASE. (1) The lowermost portion of a column or pier, beneath the shaft. (2) The lowest element of a wall, dome, or building or occasionally of a statue or painting.

BASILICA. (1) In ancient Roman architecture, a large, oblong building used as a public meeting place and hall of justice. It generally includes a nave, side aisles, and one or more apses. (2) In Christian architecture, a longitudinal church derived from the Roman basilica and having a nave, an apse, two or four side aisles or side chapels, and sometimes a narthex. (3) Any one of the seven original churches of Rome or other churches accorded the same religious privileges.

BATTEMENT. A parapet consisting of alternating solid parts and open spaces designed originally for defense and later used for decoration. See *crenellated*.

BAY. A subdivision of the interior space of a building. Usually a series of bays is formed by consecutive architectural supports.

BELVEDERE. A structure made for the purpose of viewing the surroundings, either above the roof of a building or freestanding in a garden or other natural setting.

BENEDICTINE ORDER. Founded at Monte Cassino in 529 CE by St. Benedict of Nursia (ca. 480–ca. 553). Less austere than other early orders, it spread throughout much of western Europe and England in the next two centuries.

BIBLE MORALISÉE. A type of illustrated Bible in which each page typically contains four pairs of illustrations representing biblical events and their related lessons.

BISHOP. The spiritual overseer of a number of churches or a diocese. His throne, or *cathedra*, placed in the principal church of the diocese, designates it as a cathedral.

BLACK-FIGURED. A style of ancient Greek pottery decoration characterized by black figures against a red background. The black-figured style preceded the red-figured style.

BLIND ARCADE. An arcade with no openings. The arches and supports are attached decoratively to the surface of a wall.

BOOK BOOKS. Books, often religious, of the 15th century containing woodcut prints in which picture and text were usually cut into the same block.

BODEGONES. Although in modern Spanish *bodegón* means "still life," in 17th-century Spain, *bodegones* referred to genre paintings that included food and drink, as in the work of Velázquez.

BOOK COVER. The stiff outer covers protecting the bound pages of a book. In the medieval period, they were frequently covered with precious metal and elaborately embellished with jewels, embossed decoration, etc.

BOOK OF HOURS. A private prayer book containing the devotions for the seven canonical hours of the Roman Catholic church (matins, vespers, etc.), liturgies for local saints, and sometimes a calendar. They were often elaborately illuminated for persons of high rank, whose names are attached to certain extant examples.

BRACKET. A stone, wooden, or metal support projecting from a wall and having a flat top to bear the weight of a statue, cornice, beam, etc. The lower part

may take the form of a scroll; it is then called a scroll bracket.

BROKEN PEDIMENT. See *pediment*.

BRONZE AGE. The earliest period in which bronze was used for tools and weapons. In the Middle East, the Bronze Age succeeded the Neolithic period in ca. 3500 BCE and preceded the Iron Age, which commenced ca. 1900 BCE.

BRUSH DRAWING. See *drawing*.

BUN FRESKO. See *fresco*.

BURIN. A pointed metal tool with a wedged-shaped tip used for engraving.

BUTTRESS. A projecting support built against an external wall, usually to counteract the lateral thrust of a vault or arch within. In Gothic church architecture, a *flying buttress* is an arched bridge above the aisle roof that extends from the upper nave wall, where the lateral thrust of the main vault is greatest, down to a solid pier.

BYZANTIUM. City on the Sea of Marmara, founded by the ancient Greeks and renamed Constantinople in 330 CE. Today called Istanbul.

CAESAR. The surname of the Roman dictator, Caius Julius Caesar, subsequently used as the title of an emperor; hence, the German Kaiser and the Russian czar (tsar).

CALLIGRAPHY. From the Greek word for "beautiful writing." (1) Decorative or formal handwriting executed with a quill or reed pen or with a brush. (2) A design derived from or resembling letters and used to form a pattern.

CALOTYPE. Invented in the 1830s, calotype was the first photographic process to use negatives and positive prints on paper.

CALVARY. The hill outside Jerusalem where Jesus was crucified, also known as *Golgotha*. The name *Calvary* is taken from the Latin word *calvaris*, meaning skull; the word *Golgotha* is the Greek transliteration of the word for "skull" in Aramaic. The hill was thought to be the spot where Adam was buried and was thus traditionally known as "the place of the skull." See *Golgotha*.

CAMEO. A low relief carving made on agate, seashell, or other multilayered material in which the subject, often in profile view, is rendered in one color while the background appears in another, darker color.

CAMERA OBSCURA. Latin for "dark room." A darkened enclosure or box with a small opening or lens on one wall through which light enters to form an inverted image on the opposite wall. The principle had long been known but was not used as an aid in picture making until the 16th century.

CAMES. Strips of lead in stained-glass windows that hold the pieces of glass together.

CAMPAGNA. Italian word for "countryside." When capitalized, it usually refers to the countryside near Rome.

CAMPANILE. From the Italian word *campana*, meaning "bell." A bell tower that is either round or square and is sometimes free-standing.

CAMPOSANTO. Italian word for "holy field." A cemetery near a church, often enclosed.

CANON. A law, rule, or standard.

CANOPY. In architecture, an ornamental, rooflike projection or cover above a statue or sacred object.

CAPITAL. The uppermost member of a column or pillar supporting the architrave.

CARDINAL. In the Roman Catholic church, a member of the Sacred college, the ecclesiastical body that elects the pope and constitutes his advisory council.

CARMELITE ORDER. Originally a 12th-century hermitage claimed to descend from a community of hermits established by the prophet Elijah on Mt.

Carmel, Palestine. In the early 13th century it spread to Europe and England, where it was reformed by St. Simon Stock and became one of the three great mendicant orders.

CARTHUSIAN ORDER. An order founded at Chartreuse, France, by Saint Bruno in 1084; known for its very stringent rules. See *Chartreuse*.

CARTOON. From the Italian word *cartone*, meaning "large paper." (1) A full-scale drawing for a picture or design intended to be transferred to a wall, panel, tapestry, etc. (2) A drawing or print, usually humorous or satirical, calling attention to some action or person of popular interest.

CARVING. (1) The cutting of a figure or design out of a solid material such as stone or wood, as contrasted to the additive technique of modeling. (2) A work executed in this technique.

CARYATID. A sculptured female figure used in place of a column as an architectural support. A similar male figure is an *atlas* (pl. *atlantes*).

CASEMATE. A chamber or compartment within a fortified wall, usually used for the storage of artillery and munitions.

CASSONE (pl. *CASSONI*). An Italian dowry chest often highly decorated with carvings, paintings, inlaid designs, and gilt embellishments.

CASTING. A method of duplicating a work of sculpture by pouring a hardening substance such as plaster or molten metal into a mold.

CAST IRON. A hard, brittle iron produced commercially in blast furnaces by pouring it into molds where it cools and hardens. Extensively used as a building material in the early 19th century, it was superseded by steel and ferroconcrete.

CATACOMBS. The underground burial places of the early Christians, consisting of passages with niches for tombs and small chapels for commemorative services.

CATALOGUE RAISONNÉ. A complete list of an artist's works of art, with a comprehensive chronology and a discussion of the artist's style.

CATHEDRA. The throne of a bishop, the principal priest of a diocese. See *cathedral*.

CATHEDRAL. The church of a bishop; his administrative headquarters. The location of his *cathedra* or throne.

CELLA. (1) The principal enclosed room of a temple used to house an image. Also called the *naos*. (2) The entire body of a temple as distinct from its external parts.

CENTERING. A wooden framework built to support an arch, vault, or dome during its construction.

CENTRAL-PLAN CHURCH. (1) A church having four arms of equal length. The crossing is often covered with a dome. Also called a Greek-cross church. (2) A church having a circular or polygonal plan.

CHAMPLEVÉ. An enameling method in which hollows are etched into a metal surface and filled with enamel.

CHANCEL. The area of a church around the altar, sometimes set off by a screen. It is used by the clergy and the choir.

CHAPEL. (1) A private or subordinate place of worship. (2) A place of worship that is part of a church but separately dedicated.

CHARTREUSE. French word for a Carthusian monastery (in Italian, *Certosa*). The Carthusian Order was founded by St. Bruno (ca. 1030–1101) at Chartreuse near Grenoble in 1084. It is an eremitic order, the life of the monks being one of silence, prayer, and austerity.

CHASING. (1) A technique of ornamenting a metal surface by the use of various tools. (2) The procedure used to finish a raw bronze cast.

CHÂTEAU (pl. **CHÂTEAUS** or **CHÂTEAUX**). French word for "castle," now used to designate a large country house as well.

CHEVET. In Gothic architecture, the term for the developed and unified east end of a church, including choir, apse, ambulatory, and radiating chapels.

CHEVRON. A V-shaped decorative element that, when used repeatedly, gives a horizontal, zigzag appearance.

CHIAROSCURO. Italian word for "light and dark." In painting, a method of modeling form primarily by the use of light and shade.

CHOIR. In church architecture, a square or rectangular area between the apse and the nave or transept. It is reserved for the clergy and the singing choir and is usually marked off by steps, a railing, or a choir screen. Also called the *chancel*.

CHOIR SCREEN. A screen, frequently ornamented with sculpture and sometimes called a *rood screen*, separating the choir of a church from the nave or transept. In Orthodox Christian churches it is decorated with icons and thus called an *iconostasis*.

CHRISTOLOGICAL CYCLE. A series of illustrations depicting the life of Jesus Christ.

CIRE-PERDU PROCESS. The lost-wax process of casting. A method in which an original is modeled in wax or coated with wax, then covered with clay. When the wax is melted out, the resulting mold is filled with molten metal (often bronze) or liquid plaster.

CISTERCIAN ORDER. Founded at Cîteaux in France in 1098 by Robert of Molesme with the objective of reforming the Benedictine Order and reasserting its original ideals of a life of severe simplicity.

CITY-STATE. An autonomous political unit comprising a city and the surrounding countryside.

CLASSICISM. Art or architecture that harkens back to and relies upon the style and canons of the art and architecture of ancient Greece or Rome, which emphasize certain standards of balance, order, and beauty.

CLERESTORY. A row of windows in the upper part of a wall that rises above an adjoining roof. Its purpose is to provide direct lighting, as in a basilica or church.

CLOISSONNÉ. An enameling method in which the hollows created by wires joined to a metal plate are filled with enamel to create a design.

CLOISTER. (1) A place of religious seclusion such as a monastery or nunnery. (2) An open court attached to a church or monastery and surrounded by an ambulatory. Used for study, meditation, and exercise.

CLUNIAC ORDER. Founded at Cluny, France, by Berno of Baume in 909. It had a leading role in the religious reform movement in the Middle Ages and had close connections to Ottonian rulers and to the papacy.

CODEx (pl. **CODICES**). A manuscript in book form made possible by the use of parchment instead of papyrus. During the 1st to 4th centuries CE, it gradually replaced the *rotulus*, or "scroll," previously used for written documents.

COFFER. (1) A small chest or casket. (2) A recessed, geometrically shaped panel in a ceiling. A ceiling decorated with these panels is said to be coffered.

COLLAGE. A composition made of cut and pasted scraps of materials, sometimes with lines or forms added by the artist.

COLONNADE. A series of regularly spaced columns supporting a lintel or entablature.

COLONNETTE. A small, often decorative, column that is connected to a wall or pier.

COLOPHON. (1) The production information given at the end of a book. (2) The printed emblem of a book's publisher.

COLOR-FIELD PAINTING. A technique of Abstract painting in which thinned paints are spread onto an unprimed canvas and allowed to soak in with minimal control by the artist.

COLOSSAL ORDER. Columns, piers, or pilasters in the shape of the Greek or Roman orders but that extend through two or more stories rather than following the Classical proportions.

COLUMN. An approximately cylindrical, upright architectural support, usually consisting of a long, relatively slender shaft, a base, and a capital. When imbedded in a wall, it is called an engaged column. Columns decorated with wraparound reliefs were used occasionally as freestanding commemorative monuments.

COMPOSITE IMAGE. An image formed by combining different images or different views of the subject.

COMPOUND PIER. A pier with attached pilasters or shafts.

CONCRETE. A mixture of sand or gravel with mortar and rubble invented in the ancient Near East and further developed by the Romans. Largely ignored during the Middle Ages, it was revived by Bramante in the early 16th century for St. Peter's.

CONTÉ CRAYON. A crayon made of graphite and clay used for drawing. Produces rich, velvety tones.

CONTINUOUS NARRATION. Portrayal of the same figure or character at different stages in a story that is depicted in a single artistic space.

CONTRAPPOSTO. Italian word for "set against." A composition developed by the Greeks to represent movement in a figure. The parts of the body are placed asymmetrically in opposition to each other around a central axis, and careful attention is paid to the distribution of weight.

CORBEL. (1) A bracket that projects from a wall to aid in supporting weight. (2) The projection of one course, or horizontal row, of a building material beyond the course below it.

CORBEL VAULT. A vault formed by progressively projecting courses of stone or brick, which eventually meet to form the highest point of the vault.

CORINTHIAN STYLE. An ornate Classical style of architecture, characterized in part by columns combining a fluted shaft with a capital made up of carved acanthus leaves and scrolls (*volutes*).

CORNICE. (1) The projecting, framing members of a classical pediment, including the horizontal one beneath and the two sloping or "raking" ones above. (2) Any projecting, horizontal element surmounting a wall or other structure or dividing it horizontally for decorative purposes.

COUNTER-REFORMATION. The movement of self-renewal and reform within the Roman Catholic church following the Protestant Reformation of the early 16th century and attempting to combat its influence. Also known as the Catholic Reform. Its principles were formulated and adopted at the Council of Trent, 1545-1563.

COURT STYLE. See *Rayonnant*.

CRENELATED. Especially in medieval Europe, the up-and-down notched walls (*battlements*) of fortified buildings and castles; the *crenels* served as openings for the use of weapons and the higher *merlons* as defensive shields.

CROMLECH. From the Welsh for "concave stone." A circle of large upright stones probably used as the setting for ritual ceremonies in prehistoric Britain.

CROSSHATCHING. In drawing and etching, parallel lines drawn across other parallel lines at various angles to represent differences in values and degrees of shading. See also *hatching*.

CROSSING. The area in a church where the transept crosses the nave, frequently emphasized by a dome or crossing tower.

CROSS SECTION. (1) In architecture, a drawing that shows a theoretical slice through a building along an imagined plane in order to reveal the design of the structure. (2) An imagined slice through any object along an imagined plane in order to reveal its structure.

CRYPT. A space, usually vaulted, in a church that sometimes causes the floor of the choir to be raised above that of the nave; often used as a place for tombs and small chapels.

CUNEIFORM. The wedge-shaped characters made in clay by the ancient Mesopotamians as a writing system.

CURTAIN WALL. A wall of a modern building that does not support the building; the building is supported by an underlying steel structure rather than by the wall itself, which serves the purpose of a facade.

CYCLOPEAN. An adjective describing masonry with large, unhewn stones, thought by the Greeks to have been built by the Cyclopes, a legendary race of one-eyed giants.

DAGUERRETYPE. Originally, a photograph on a silver-plated sheet of copper, which had been treated with fumes of iodine to form silver iodide on its surface and then after exposure developed by fumes of mercury. The process, invented by L. J. M. Daguerre and made public in 1839, was modified and accelerated as daguerreotypes gained popularity.

DECALCOMANIA. A technique developed by the artist Max Ernst that uses pressure to transfer paint to a canvas from some other surface.

DEESIS. From the Greek word for "entreaty." The representation of Christ enthroned between the Virgin Mary and St. John the Baptist, frequent in Byzantine mosaics and depictions of the Last Judgment. It refers to the roles of the Virgin Mary and St. John the Baptist as intercessors for humankind.

DENTIL. A small, rectangular, tooth-like block in a series, used to decorate a classical entablature.

DIKKA. An elevated, flat-topped platform in a mosque used by the muezzin or cantor.

DIORITE. An igneous rock, extremely hard and usually black or dark gray in color.

DIPTYCH. (1) Originally a hinged, two-leaved tablet used for writing. (2) A pair of ivory carvings or panel paintings, usually hinged together.

DIPYLON VASE. A Greek funerary vase with holes in the bottom through which libations were poured to the dead. Named for the cemetery near Athens where the vases were found.

DISGUISED SYMBOLISM. "Hidden" meaning in the details of a painting that carry a symbolic message.

DOLMEN. A structure formed by two or more large, upright stones capped by a horizontal slab. Thought to be a prehistoric tomb.

DOME. A true dome is a vaulted roof of circular, polygonal, or elliptical plan, formed with hemispherical or ovoidal curvature. May be supported by a circular wall or drum and by pendentives or related constructions. Domical coverings of many other sorts have been devised.

DOME VAULT. The arched sections of a dome that, joined together, form the rounded shape of a dome. See *dome*, *vault*, and *arch*.

DOMINICAN ORDER. Founded as a mendicant order by St. Dominic in Toulouse in 1220.

DOMUS. Latin word for "house." A detached, one-family Roman house with rooms frequently grouped around two open courts. The first court, called the *atrium*, was used for entertaining and conducting business. The second court, usually with a garden and surrounded by a *peristyle* or colonnade, was for the private use of the family.

DONOR. The patron or client at whose order a work of art was executed; the donor may be depicted in the work.

DORIC STYLE. A simple style of Classical architecture, characterized in part by smooth or fluted column shafts and plain, cushionlike capitals, and a frieze of *metopes* and *triglyphs*.

DRAWING. (1) A work in pencil, pen and ink, charcoal, etc., often on paper. (2) A similar work in ink or wash, etc., made with a brush and often called a brush drawing. (3) A work combining these or other techniques. A drawing may be large or small, a quick sketch or an elaborate work. Among its various forms are a record of something seen, a study for another work, an illustration associated with a text, and a technical aid.

DRESSED STONE. A masonry technique in which exposed stones are finished, or dressed, to produce a surface that is smooth and formal.

DRÔLERIES. French word for "jests." Used to describe the lively animals and small figures in the margins of late medieval manuscripts and in wood carvings on furniture.

DRUM. (1) A section of the shaft of a column. (2) A circular-shaped wall supporting a dome.

DRYPOINT. A type of *intaglio* printmaking in which a sharp metal needle is used to carve lines and a design into a (usually) copper plate. The act of drawing pushes up a burr of metal filings, and so, when the plate is inked, ink will be retained by the burr to create a soft and deep tone that will be unique to each print. The burr can only last for a few printings. Both the print and the process are called drypoint.

EARTHWORKS. Usually very large scale, outdoor artwork that is produced by altering the natural environment.

ECHINUS. In the Doric or Tuscan Order, the round, cushionlike element between the top of the shaft and the abacus.

ELEVATION. (1) An architectural drawing presenting a building as if projected on a vertical plane parallel to one of its sides. (2) Term used in describing the vertical plane of a building.

EMBLEM BOOK. A reference book for painters of Christian subjects that provides examples of objects and events associated with saints and other religious figures.

EMBOSSING. A metalworking technique in which a relief design is raised by hammering into the back side of a metal sheet.

EMPIRICISM. The philosophical and scientific idea that knowledge should be attained through observation and the accumulation of evidence through repeatable experiments.

ENAMEL. (1) Colored glassy substances, either opaque or translucent, applied in powder form to a metal surface and fused to it by firing. Two main techniques developed: *champlevé* (from the French for "raised field"), in which the areas to be treated are dug out of the metal surface; and *cloisonné* (from the French for "partitioned"), in which compartments or cloisons to be filled are made on the surface with thin metal strips. (2) A work executed in either technique.

ENCAUSTIC. A technique of painting with pigments dissolved in hot wax.

ENGAGED COLUMN. A column that is joined to a wall, usually appearing as a half-rounded vertical shape.

ENGRAVING. (1) A means of embellishing metal surfaces or gemstones by incising a design on the surface. (2) A print made by cutting a design into a metal plate (usually copper) with a pointed steel tool known as a burin. The burr raised on either side of the incised line is removed. Ink is then rubbed into the V-shaped grooves and wiped off the surface. The plate, covered with a damp sheet of paper, is run through a heavy press. The image on the paper is the reverse of that on the plate. When a fine steel needle is used instead of a burin and the burr is retained, a drypoint engraving results, characterized by a softer line. These techniques are called, respectively, engraving and drypoint.

ENTABLATURE. (1) In a classical order, the entire structure above the columns; this usually includes architrave, frieze, and cornice. (2) The same structure in any building of a classical style.

ENTASIS. A swelling of the shaft of a column.

ENVIRONMENT. In art, environment refers to the Earth itself as a stage for Environmental art, works that can be enormously large yet very minimal and abstract. These works can be permanent or transitory. The term Earth art is also used to describe these artworks.

ETCHING. (1) A print made by coating a copperplate with an acid-resistant resin and drawing through this ground, exposing the metal with a sharp instrument called a *stylus*. The plate is bathed in acid, which eats into the lines; it is then heated to remove the resin and finally inked and printed on paper. (2) The technique itself is also called etching.

EUCHARIST. (1) The sacrament of Holy Communion, the celebration in commemoration of the Last Supper. (2) The consecrated bread and wine used in the ceremony.

EVANGELISTS. Matthew, Mark, Luke, and John, traditionally thought to be the authors of the Gospels, the first four books of the New Testament, which recount the life and death of Christ. They are usually shown with their symbols, which are probably derived from the four beasts surrounding the throne of the Lamb in the Book of Revelation or from those in the vision of Ezekiel: a winged man or angel for Matthew, a winged lion for Mark, a winged ox for Luke, and an eagle for John. These symbols may also represent the evangelists.

FACADE. The principle face or the front of a building.

FAIENCE. (1) A glass paste fired to a shiny opaque finish, used in Egypt and the Aegean. (2) A type of earthenware that is covered with a colorful opaque glaze and is often decorated with elaborate designs.

FATHERS OF THE CHURCH. Early teachers and defenders of the Christian faith. Those most frequently represented are the four Latin fathers: St. Jerome, St. Ambrose, and St. Augustine, all of the 4th century, and St. Gregory of the 6th.

FERROCONCRETE. See *reinforced concrete*.

FERROVITREOUS. In 19th-century architecture, the combining of iron (and later steel) with glass in the construction of large buildings (e.g., railway stations, exhibition halls, etc.).

FIBULA. A clasp, buckle, or brooch, often ornamented.

FILIGREE. Delicate decorative work made of intertwining wires.

FINIAL. A relatively small, decorative element terminating in a gable, pinnacle, or the like.

FLAMBOYANT GOTHIC. A style of Late Gothic architecture in which the bar tracery supporting the strained glass windows is formed into elaborate pointed, often flamelike, shapes.

FLUTING. In architecture, the ornamental grooves channeled vertically into the shaft of a column or pilaster. They may meet in a sharp edge, as in the Doric style, or be separated by a narrow strip or fillet, as in the Ionic, Corinthian, and composite styles.

FLYING BUTTRESS. An arch or series of arches on the exterior of a building, connecting the building to detached pier buttresses so that the thrust from the roof vaults is offset.

FOLIO. A leaf of a manuscript or a book, identified so that the front and the back have the same number, the front being labeled *recto* and the back *verso*.

FONT. (1) In printing, a complete set of type in which the letters and numbers follow a consistent design and style. (2) The stone or metal container that holds the Holy Water in a baptistry.

FORESHORTENING. A method of reducing or distorting the parts of a represented object that are not parallel to the picture plane in order to convey the impression of three dimensions as perceived by the human eye.

FORMALISM. The emphasis in art on form; i.e., on line, shape, color, composition, etc. rather than on subject matter. Hence, art from any era may be judged on the basis of its formal elements alone.

FORUM (pl. *FORA*). In an ancient Roman city, the main public square, which was a public gathering place and the center of judicial and business activity.

FOUR-IWAN MOSQUE. A mosque with a rectangular interior courtyard designed with a large vaulted chamber or recess open to the courtyard on each side.

FRANCISCAN ORDER. Founded as a mendicant order by St. Francis of Assisi (Giovanni de Bernardone, ca. 1181–1226). The order's monks aimed to imitate the life of Christ in its poverty and humility, to preach, and to minister to the spiritual needs of the poor.

FRESCO. Italian word for "fresh." Fresco is the technique of painting on plaster with pigments ground in water so that the paint is absorbed by the plaster and becomes part of the wall itself. *Buon fresco* is the technique of painting on wet plaster; *fresco secco* is the technique of painting on dry plaster.

FRIEZE. (1) A continuous band of painted or sculptured decoration. (2) In a Classical building, the part of the entablature between the architrave and the cornice. A Doric frieze consists of alternating triglyphs and metopes, the latter often sculptured. An Ionic frieze is usually decorated with continuous relief sculpture.

FRONTALITY. Representation of a subject in a full frontal view.

FROTTAGE. The technique of rubbing a drawing medium, such as a crayon, over paper that is placed over a textured surface in order to transfer the underlying pattern to the paper.

GABLE. (1) The triangular area framed by the cornice or eaves of a building and the sloping sides of a pitched roof. In Classical architecture, it is called a *pediment*. (2) A decorative element of similar shape, such as the triangular structures above the portals of a Gothic church and sometimes at the top of a Gothic picture frame.

GALLERY. A second story placed over the side aisles of a church and below the clerestory. In a church with a four-part elevation, it is placed below the triforium and above the nave arcade.

GENIUS. A winged semi-nude figure, often purely decorative but frequently personifying an abstract concept or representing the guardian spirit of a person or place.

GENRE. The French word for "kind" or "sort." In art, a genre scene is a work of art, usually a painting, depicting a scene from everyday, ordinary life.

GEOMETRIC ARABESQUE. Complex patterns and designs usually composed of polygonal geometric forms, rather than organic flowing shapes; often used as ornamentation in Islamic art.

GESO. A smooth mixture of ground chalk or plaster and glue used as the basis for tempera painting and for oil painting on panel.

GESTURE PAINTING. A technique in painting and drawing where the actual physical movement of the artist is reflected in the brush stroke or line as it is seen in the artwork. The artist Jackson Pollock is particularly associated with this technique.

GIGANTOMACHY. From Greek mythology, the battle of the gods and the giants.

GILDING. (1) A coat of gold or of a gold-colored substance that is applied mechanically or chemically to surfaces of a painting, sculpture, or architectural decoration. (2) The process of applying this material.

GIORNATA. Because fresco painting dries quickly, artists apply only as much wet plaster on the wall as can be painted in one day. That amount of work is called the *giornata*, from the Italian word *giorno*, meaning "day." So, *giornata* means "one day's work."

GISANT. In a tomb sculpture, a recumbent effigy or representation of the deceased. At times, the gisant may be represented in a state of decay.

GLAZE. (1) A thin layer of translucent oil color applied to a painted surface or to parts of it in order to modify the tone. (2) A glassy coating applied to a piece of ceramic work before firing in the kiln as a protective seal and often as decoration.

GLAZED BRICK. Brick that is baked in a kiln after being painted.

GLORIOLE (or GLORY). The circle of radiant light around the heads or figures of God, Christ, the Virgin Mary, or a saint. When it surrounds the head only, it is called a *halo* or *nimbus*; when it surrounds the entire figure with a large oval, it is called a *mandorla* (the Italian word for "almond"). It indicates divinity or holiness, though originally it was placed around the heads of kings and gods as a mark of distinction.

GOLD LEAF. (1) Gold beaten into very thin sheets or "leaves" and applied to illuminated manuscripts and panel paintings, to sculpture, or to the back of the glass tesserae used in mosaics. (2) *Silver leaf* is also used, though ultimately it tarnishes. Sometimes called gold foil, silver foil.

GOLGOTHA. From the word in Aramaic meaning "skull," Golgotha is the hill outside Jerusalem where the Crucifixion of Jesus Christ took place; it is also known as Calvary. See *Calvary*.

GORGON. In Greek mythology, one of three hideous female monsters with large heads and snakes for hair. Their glance turned men to stone. Medusa, the most famous of the Gorgons, was killed by Perseus only with help from the gods.

GOSPEL. (1) The first four books of the New Testament. They tell the story of Christ's life and death and are ascribed to the evangelists Matthew, Mark, Luke, and John. (2) A copy of these, usually called a Gospel Book, often richly illuminated.

GRANULATION. A technique of decoration in which metal granules, or tiny metal balls, are fused to a metal surface.

GRATTAGE. A technique in painting whereby an image is produced by scraping off paint from a canvas that has been placed over a textured surface.

GREEK CROSS. A cross with four arms of equal length arranged at right angles.

GREEK-CROSS CHURCH. A church designed using the shape of an equal-armed Greek cross; it has a central room with four equally sized rooms extending outward from the main room.

GRISAILLE. A monochrome drawing or painting in which only values of black, gray, and white are used.

GRISAILLE GLASS. White glass painted with gray designs.

GROIN VAULT. A vault formed by the intersection of two barrel vaults at right angles to each other. A groin is the ridge resulting from the intersection of two vaults.

GROUND-LINE. The line, actual or implied, on which figures stand.

GROUND PLAN. An architectural drawing presenting a building as if cut horizontally at the floor level. Also called a *plan*.

GUTTAE. In a Doric entablature, small peglike projections above the frieze; possibly derived from pegs originally used in wooden construction.

HALL CHURCH. See *hallenkirche*.

HALLENKIRCHE. German word for "hall church." A church in which the nave and the side aisles are of the same height. The type was developed in Romanesque architecture and occurs especially frequently in German Gothic churches.

HALO. In painting, the circle or partial circle of light depicted surrounding the head of a saint, angel, or deity to indicate a holy or sacred nature; most common in

medieval paintings but also seen in more modern artwork. Also called a *nimbus*.

HAPPENING. A type of art that involves visual images, audience participation, and improvised performance, usually in a public setting and under the loose direction of an artist.

HATAJI STYLE. Meaning literally "of Cathay" or "Chinese"; used in Ottoman Turkish art to describe an artistic pattern consisting of stylized lotus blossoms, other flowers, and sinuous leaves on curving stems.

HATCHING. A series of parallel lines used as shading in prints and drawings. When two sets of crossing parallel lines are used, it is called *crosshatching*.

HERALDIC COMPOSITION. A design that is symmetrical around a central axis.

HIERATIC SCALE. An artistic technique in which the importance of figures is indicated by size, so that the most important figure is depicted as the largest.

HIEROGLYPH. A symbol, often based on a figure, animal, or object, standing for a word, syllable, or sound. These symbols form the early Egyptian writing system, and are found on ancient Egyptian monuments as well as in Egyptian written records.

HIGH RELIEF. See *relief*.

HÔTEL. French word for "hotel" but used also to designate an elegant town house.

HOUSE CHURCH. A place for private worship within a house; the first Christian churches were located in private homes that were modified for religious ceremonies.

HUMANISM. A philosophy emphasizing the worth of the individual, the rational abilities of humankind, and the human potential for good. During the Italian Renaissance, humanism was part of a movement that encouraged study of the classical cultures of Greece and Rome; often it came into conflict with the doctrines of the Catholic church.

HYPOSTYLE. A hall whose roof is supported by columns.

ICON. From the Greek word for "image." A panel painting of one or more sacred personages, such as Christ, the Virgin, or a saint, particularly venerated in the Orthodox Christian church.

ICONOCLASM. The doctrine of the Christian church in the 8th and 9th centuries that forbade the worship or production of religious images. This doctrine led to the destruction of many works of art. The iconoclastic controversy over the validity of this doctrine led to a division of the church. Protestant churches of the 16th and 17th centuries also practiced iconoclasm.

ICONOGRAPHY. (1) The depicting of images in art in order to convey certain meanings. (2) The study of the meaning of images depicted in art, whether they be inanimate objects, events, or personages. (3) The content or subject matter of a work of art.

ILLUSIONISM. In artistic terms, the technique of manipulating pictorial or other means in order to cause the eye to perceive a particular reality. May be used in architecture and sculpture, as well as in painting.

IMPASTO. From the Italian word meaning "to make into a paste"; it describes paint, usually oil paint, applied very thickly.

IN ANTIS. An architectural term that indicates the position of the columns on a Greek or Roman building when those columns are set between the junction of two walls.

INCISION. A cut made into a hard material with a sharp instrument.

INLAID NIELLO. See *niello*.

INSULA (pl. INSULAE). Latin word for "island." (1) An ancient Roman city block. (2) A Roman "apartment house": a concrete and brick building or chain of buildings around a central court, up to five stories high.

The ground floor had shops, and above were living quarters.

INTAGLIO. A printing technique in which the design is formed from ink-filled lines cut into a surface. Engraving, etching, and drypoint are examples of intaglio.

INTONACO. The layer of smooth plaster on which paint is applied in fresco painting.

IONIC STYLE. A style of Classical Greek architecture that is characterized in part by columns that have fluted shafts, capitals with volutes (scrolls), and a base; a continuous frieze is also characteristic.

IWAN. A vaulted chamber in a mosque or other Islamic structure, open on one side and usually opening onto an interior courtyard.

JAMBS. The vertical sides of an opening. In Romanesque and Gothic churches, the jambs of doors and windows are often cut on a slant outward, or "splayed," thus providing a broader surface for sculptural decoration.

JAPONISME. In 19th-century French and American art, a style of painting and drawing that reflected the influence of the Japanese artworks, particularly prints, that were then reaching the West.

JESUIT ORDER. The "Society of Jesus" was founded in 1534 by Ignatius of Loyola (1491–1556) and was especially devoted to the service of the pope. The order was a powerful influence in the struggle of the Catholic Counter-Reformation with the Protestant Reformation and was also very important for its missionary work, disseminating Christianity in the Far East and the New World. The mother church in Rome, *Il Gesù*, conforms in design to the preaching aims of the new order.

KEEP. (1) The innermost and strongest structure or central tower of a medieval castle, sometimes used as living quarters, as well as for defense. Also called a *donjon*. (2) A fortified medieval castle.

KEystone. The highest central stone or voussoir in an arch; it is the final stone to be put in place, and its weight holds the arch together.

KITSCH. A German word for "trash," in English *kitsch* has come to describe a sensibility that is vulgar and sentimental, in contrast to the refinement of "high" art or fine art.

KORE (pl. KORAI). Greek word for "maiden." An Archaic Greek statue of a standing, draped female.

KOUROS (pl. KOUROI). Greek word for "male youth." An Archaic Greek statue of a standing, nude youth.

KRATER. A Greek vessel, of assorted shapes, in which wine and water are mixed. A *calyx krater* is a bell-shaped vessel with handles near the base; a *volute krater* is a vessel with handles shaped like scrolls.

KUFIC. One of the first general forms of Arabic script to be developed, distinguished by its angularity; distinctive variants occur in various parts of the Islamic worlds.

KUNSTKAMMEN (German, pl. KUNSTKAMMERN; in Dutch, KUNSTKAMER). Literally this is a room of art. Developed in the 16th century, it is a forerunner of the museum—a display of paintings and objects of natural history (shells, bones, etc.) that formed an encyclopedic collection.

KYLIX. In Greek and Roman antiquity, a shallow drinking cup with two horizontal handles, often set on a stem terminating in a foot.

LABORS OF THE MONTHS. The various occupations suitable to the months of the year. Scenes or figures illustrating these were frequently represented in illuminated manuscripts. Sometimes scenes of the labors of the months were combined with signs of the zodiac.

LAMASSU. An ancient Near Eastern guardian of a palace; often shown in sculpture as a human-headed bull or lion with wings.

LANCET. A tall, pointed window common in Gothic architecture.

LANDSCAPE. A drawing or painting in which an outdoor scene of nature is the primary subject.

LANTERN. A relatively small structure crowning a dome, roof, or tower, frequently open to admit light to an enclosed area below.

LAPITH. A member of a mythical Greek tribe that defeated the Centaurs in a battle, scenes from which are frequently represented in vase painting and sculpture.

LATIN CROSS. A cross in which three arms are of equal length and one arm is longer.

LAY BROTHER. One who has joined a monastic order but has not taken monastic vows and therefore belongs still to the people or laity, as distinguished from the clergy or religious.

LEKYTHOS (pl. **LEKYTHOI**). A Greek oil jug with an ellipsoidal body, a narrow neck, a flanged mouth, a curved handle extending from below the lip to the shoulder, and a narrow base terminating in a foot. It was used chiefly for ointments and funerary offerings.

LIBERAL ARTS. Traditionally thought to go back to Plato, they comprised the intellectual disciplines considered suitable or necessary to a complete education and included grammar, rhetoric, logic, arithmetic, music, geometry, and astronomy. During the Middle Ages and the Renaissance, they were often represented allegorically in paintings, engravings, and sculpture.

LINTEL. In architecture, a horizontal beam of any material that is held up by two vertical supports.

LITHOGRAPH. A print made by drawing a design with an oily crayon or other greasy substance on a porous stone or, later, a metal plate; the design is then fixed, the entire surface is moistened, and the printing ink that is applied adheres only to the oily lines of the drawing. The design can then be transferred easily in a press to a piece of paper. The technique was invented ca. 1796 by Alois Senefelder and quickly became popular. It is also widely used commercially, since many impressions can be taken from a single plate.

LOGGIA. A covered gallery or arcade open to the air on at least one side. It may stand alone or be part of a building.

LONGITUDINAL SECTION. A cross section of a building or other object that shows the lengthwise structure. See *cross section*.

LOUVERS. A series of overlapping boards or slats that can be opened to admit air but are slanted so as to exclude sun and rain.

LOW RELIEF. See *relief*.

LUNETTE. (1) A semicircular or pointed wall area, as under a vault, or above a door or window. When it is above the portal of a medieval church, it is called a *tympanum*. (2) A painting, relief sculpture, or window of the same shape.

MADRASA. An Islamic religious college.

MAESTÀ. Italian word for "majesty," applied in the 14th and 15th centuries to representations of the Madonna and Child enthroned and surrounded by her celestial court of saints and angels.

MAGICO-RELIGIOUS. In art, subject matter that deals with the supernatural and often has the purpose of invoking those powers to achieve human ends, e.g., prehistoric cave paintings used to ensure a successful hunt.

MAGUS (pl. **MAGI**). (1) A member of the priestly caste of ancient Media and Persia. (2) In Christian literature, one of the three Wise Men or Kings who came from the East bearing gifts to the newborn Jesus.

MANDORLA. A representation of light surrounding the body of a holy figure.

MANIERA. In painting, the "Greek style" of the 13th century that demonstrated both Italian and Byzantine influences.

MANUSCRIPT ILLUMINATION. Decoration of handwritten documents, scrolls, or books with drawings or paintings. Illuminated manuscripts were often produced during the Middle Ages.

MAQSURA. A screened enclosure, reserved for the ruler, often located before the *mihrab* in certain important royal Islamic mosques.

MARTYRIUM (pl. **MARTYRIA**). A church, chapel, or shrine built over the grave of a Christian martyr or at the site of an important miracle.

MASTABA. An ancient Egyptian tomb, rectangular in shape, with sloping sides and a flat roof. It covered a chapel for offerings and a shaft to the burial chamber.

MATRIX. (1) A mold or die used for shaping a ceramic object before casting. (2) In printmaking, any surface on which an image is incised, carved, or applied and from which a print may be pulled.

MAUSOLEUM. (1) The huge tomb erected at Halikarnassos in Asia Minor in the 4th century BCE by King Mausolos and his wife Artemisia. (2) A generic term for any large funerary monument.

MEANDER. A decorative motif of intricate, rectilinear character applied to architecture and sculpture.

MEDIUM (pl. **MEDIUMS**). (1) The material or technique in which an artist works. (2) The vehicle in which pigments are carried in paint, pastel, etc.

MEGALITH. From the Greek *mega*, meaning "big," and *lithos*, meaning "stone." A huge stone such as those used in cromlechs and dolmens.

MEGARON (pl. **MEGARONS** or **MEGARA**). From the Greek word for "large." The central audience hall in a Minoan or Mycenaean palace or home.

MENHIR. A megalithic upright slab of stone, sometimes placed in rows by prehistoric peoples.

MESOLITHIC. Transitional period of the Stone Age between the Paleolithic and the Neolithic.

METOPÉ. The element of a Doric frieze between two consecutive triglyphs, sometimes left plain but often decorated with paint or relief sculpture.

MIHRAB. A niche, often highly decorated, usually found in the center of the *qibla* wall of a mosque, indicating the direction of prayer toward Mecca.

MINARET. A tower on or near a mosque, varying extensively in form throughout the Islamic world, from which the faithful are called to prayer five times a day.

MINBAR. A type of staircase pulpit, found in more important mosques to the right of the mihrab, from which the Sabbath sermon is given on Fridays after the noonday prayer.

MINIATURE. (1) A single illustration in an illuminated manuscript. (2) A very small painting, especially a portrait on ivory, glass, or metal.

MINOTAUR. In Greek mythology, a monster having the head of a bull and the body of a man who lived in the Labyrinth of the palace of Knossos on Crete.

MODEL. (1) The preliminary form of a sculpture, often finished in itself but preceding the final casting or carving. (2) Preliminary or reconstructed form of a building made to scale. (3) A person who poses for an artist.

MODELING. (1) In sculpture, the building up of a figure or design in a soft substance such as clay or wax. (2) In painting and drawing, producing a three-dimensional effect by changes in color, the use of light and shade, etc.

MODULE. (1) A segment of a pattern. (2) A basic unit, such as the measure of an architectural member. Multiples of the basic unit are used to determine proportionate construction of other parts of a building.

MOLDING. In architecture, any of various long, narrow, ornamental bands having a distinctive profile that

project from the surface of the structure and give variety to the surface by means of their patterned contrasts of light and shade.

MONASTIC ORDER. A religious society whose members live together under an established set of rules.

MONOTYPE. A unique print made from a copper plate or other type of plate from which no other copies of the artwork are made.

MOSAIC. Decorative work for walls, vaults, ceilings, or floors composed of small pieces of colored materials, called *tesserae*, set in plaster or concrete. Romans, whose work was mostly for floors, used shaped pieces of colored stone. Early Christians used pieces of glass with brilliant hues, including gold, and slightly irregular surfaces, producing an entirely different glittering effect.

MOSQUE. A building used as a center for community prayers in Islamic worship; it often serves other functions including religious education and public assembly.

MOTIF. A visual theme, a motif may appear numerous times in a single work of art.

MOZARAB. Term used for the Spanish Christian culture of the Middle Ages that developed while Muslims were the dominant culture and political power on the Iberian peninsula.

MUQARNAS. A distinctive type of Islamic decoration consisting of multiple nichelike forms usually arranged in superimposed rows, often used in zones of architectural transition.

MURAL. From the Latin word for wall, *murus*. A large painting or decoration either executed directly on a wall (fresco) or done separately and affixed to it.

MUSES. In Greek mythology, the nine goddesses who presided over various arts and sciences. They are led by Apollo as god of music and poetry and usually include Calliope, muse of epic poetry; Clio, muse of history; Erato, muse of love poetry; Euterpe, muse of music; Melpomene, muse of tragedy; Polyhymnia, muse of sacred music; Terpsichore, muse of dancing; Thalia, muse of comedy; and Urania, muse of astronomy.

MUTULES. A feature of Doric architecture, mutules are flat rectangular blocks found just under the cornice.

NAOS. See *cella*.

NARTHÉX. The transverse entrance hall of a church, sometimes enclosed but often open on one side to a preceding atrium.

NATURALISM. A style of art that aims to depict the natural world as it appears.

NAVE. (1) The central aisle of a Roman basilica, as distinguished from the side aisles. (2) The same section of a Christian basilican church extending from the entrance to the apse or transept.

NECROPOLIS. Greek for "city of the dead." A burial ground or cemetery.

NEOLITHIC. The New Stone Age, thought to have begun ca. 9000–8000 BCE. The first society to live in settled communities, to domesticate animals, and to cultivate crops, it saw the beginning of many new skills, such as spinning, weaving, and building.

NEW STONE AGE. See *neolithic*.

NIELLO. Dark metal alloys applied to the engraved lines in a precious metal plate (usually made of gold or silver) to create a design.

NIKE. The ancient Greek goddess of victory, often identified with Athena and by the Romans with Victoria. She is usually represented as a winged woman with windblown draperies.

NIMBUS. See *halo*.

NOCTURNE. A painting that depicts a nighttime scene, often emphasizing the effects of artificial light.

NONOBJECTIVE PAINTING. In Abstract art, the style of painting that does not strive to represent objects, including people, as they would appear in everyday life or in the natural world.

OBELISK. A tall, tapering, four-sided stone shaft with a pyramidal top. First constructed as *megaliths* in ancient Egypt, certain examples have since been exported to other countries.

OCULUS. The Latin word for "eye." (1) A circular opening at the top of a dome used to admit light. (2) A round window.

ODALISQUE. Turkish word for "harem slave girl" or "concubine."

OIL PAINTING. (1) A painting executed with pigments mixed with oil, first applied to a panel prepared with a coat of gesso (as also in tempera painting), and later to a stretched canvas primed with a coat of white paint and glue. The latter method has predominated since the late 15th century. Oil painting also may be executed on paper, parchment, copper, etc. (2) The technique of executing such a painting.

OIL SKETCH. A work in oil painting of an informal character, sometimes preparatory to a finished work.

OLD STONE AGE. See *paleolithic*.

OPTICAL IMAGES. An image created from what the eye sees, rather than from memory.

ORANT. A standing figure with arms upraised in a gesture of prayer.

ORCHESTRA. (1) In an ancient Greek theater, the round space in front of the stage and below the tiers of seats, reserved for the chorus. (2) In a Roman theater, a similar space reserved for important guests.

ORTHODOX. From the Greek word for "right in opinion." The Eastern Orthodox church, which broke with the Western Catholic church during the 5th century CE and transferred its allegiance from the pope in Rome to the Byzantine emperor in Constantinople and his appointed patriarch. Sometimes called the Byzantine church.

ORTHOGONAL. In a perspective construction, an imagined line in a painting that runs perpendicular to the picture plane and recedes to a vanishing point.

ORTHOSTATS. Upright slabs of stone constituting or lining the lowest courses of a wall, often in order to protect a vulnerable material such as mud-brick.

PALAZZO (pl. **PALAZZI**). Italian word for "palace" (in French, *palais*). Refers either to large official buildings or to important private town houses.

PALEOLITHIC. The Old Stone Age, usually divided into Lower, Middle, and Upper (which began about 35,000 BCE). A society of nomadic hunters who used stone implements, later developing ones of bone and flint. Some lived in caves, which they decorated during the latter stages of the age, at which time they also produced small carvings in bone, horn, and stone.

PALETTE. (1) A thin, usually oval or oblong board with a thumbhole at one end, used by painters to hold and mix their colors. (2) The range of colors used by a particular painter. (3) In Egyptian art, a slate slab, usually decorated with sculpture in low relief. The small ones with a recessed circular area on one side are thought to have been used for eye makeup. The larger ones were commemorative objects.

PANEL. (1) A wooden surface used for painting, usually in tempera, and prepared beforehand with a layer of gesso. Large altarpieces require the joining together of two or more boards. (2) Recently, panels of Masonite or other composite materials have come into use.

PANTHEON. From *pan*, Greek for "all," and *theos*, Greek for "god." A Hellenistic Greek or Roman temple dedicated to all of the gods; in later years, often housing tombs or memorials for the illustrious dead of a nation.

PANTOCRATOR. A representation of Christ as ruler of the universe that appears frequently in the dome or apse mosaics of Byzantine churches.

PAPYRUS. (1) A tall aquatic plant that grows abundantly in the Near East, Egypt, and Abyssinia. (2) A paperlike material made by laying together thin strips of the pith of this plant and then soaking, pressing, and drying the whole. The resultant sheets were used as writing material by the ancient Egyptians, Greeks, and Romans. (3) An ancient document or scroll written on this material.

PARCHMENT. From Pergamon, the name of a Greek city in Asia Minor where parchment was invented in the 2nd century BCE. (1) A paperlike material made from bleached animal hides used extensively in the Middle Ages for manuscripts. Vellum is a superior type of parchment made from calfskin. (2) A document or miniature on this material.

PASSION. (1) In ecclesiastic terms, the events of Jesus' last week on earth. (2) The representation of these events in pictorial, literary, theatrical, or musical form.

PASTEL. (1) A soft, subdued shade of color. (2) A drawing stick made from pigments ground with chalk and mixed with gum water. (3) A drawing executed with these sticks.

PEDESTAL. An architectural support for a statue, vase, column, etc.

PEDIMENT. (1) In Classical architecture, a low gable, typically triangular, framed by a horizontal cornice below and two raking cornices above; frequently filled with sculpture. (2) A similar architectural member used over a door, window, or niche. When pieces of the cornice are either turned at an angle or interrupted, it is called a *broken pediment*.

PELIKE. A Greek storage jar with two handles, a wide mouth, little or no neck, and resting on a foot.

PENDENTIVE. One of the concave triangles that achieves the transition from a square or polygonal opening to the round base of a dome or the supporting drum.

PERFORMANCE ART. A type of art in which performance by actors or artists, often interacting with the audience in an improvisational manner, is the primary aim over a certain time period. These artworks are transitory, perhaps with only a photographic record of some of the events.

PERIPHERAL. An adjective describing a building surrounded by a single row of columns or colonnade.

PERISTYLE. (1) In a Roman house or *domus*, an open garden court surrounded by a colonnade. (2) A colonnade around a building or court.

PERPENDICULAR STYLE. The third style of English Gothic architecture, in which the bar tracery uses predominantly vertical lines. The fan vault is also used extensively in this style.

PERSPECTIVE. A system for representing spatial relationships and three-dimensional objects on a flat two-dimensional surface so as to produce an effect similar to that perceived by the human eye. In *atmospheric* or *aerial* perspective, this is accomplished by a gradual decrease in the intensity of color and value and in the contrast of light and dark as objects are depicted as farther and farther away in the picture. In color artwork, as objects recede into the distance, all colors tend toward a light bluish-gray tone. In *scientific* or *linear* perspective, developed in Italy in the 15th century, a mathematical system is used based on orthogonals receding to vanishing points on the horizon. Transversals intersect the orthogonals at right angles at distances derived mathematically. Since this presupposes an absolutely stationary viewer and imposes rigid restrictions on the artist, it is seldom applied with complete consistency. Although traditionally ascribed to Brunelleschi, the first theoretical text on perspective was Leon Battista Alberti's *On Painting* (1435).

PHILOSOPHES. Philosophers and intellectuals of the Enlightenment, whose writings had an important influence upon the art of that time.

PHOTOGRAM. A shadowlike photograph made without a camera by placing objects on light-sensitive paper and exposing them to a light source.

PHOTOGRAPH. The relatively permanent or "fixed" form of an image made by light that passes through the lens of a camera and acts upon light-sensitive substances. Often called a print.

PHOTOMONTAGE. A photograph in which prints in whole or in part are combined to form a new image. A technique much practiced by the Dada group in the 1920s.

PIAZZA (pl. **PIAZZE**). Italian word for "public square" (in French, *place*; in German, *platz*).

PICTURE PLANE. The flat surface on which a picture is painted.

PICTURESQUE. Visually interesting or pleasing, as if resembling a picture.

PIER. An upright architectural support, usually rectangular and sometimes with capital and base. When columns, pilasters, or shafts are attached to it, as in many Romanesque and Gothic churches, it is called a compound pier.

PIETÀ. Italian word for both "pity" and "piety." A representation of the Virgin grieving over the dead Christ. When used in a scene recording a specific moment after the Crucifixion, it is usually called a Lamentation.

PIETRA SERENA. A limestone, gray in color, used in the Tuscany region of Italy.

PILASTER. A flat, vertical element projecting from a wall surface and normally having a base, shaft, and capital. It has generally a decorative rather than a structural purpose.

PILGRIMAGE CHOIR. The unit in a Romanesque church composed of the apse, ambulatory, and radiating chapels.

PILGRIMAGE PLAN. The general design used in Christian churches that were stops on the pilgrimage routes throughout medieval Europe, characterized by having side aisles that allowed pilgrims to ambulate around the church. See *pilgrimage choir*.

PILLAR. A general term for a vertical architectural support that includes columns, piers, and pilasters.

PILOTIS. Pillars that are constructed from *reinforced concrete* (*ferroconcrete*).

PINNACLE. A small, decorative structure capping a tower, pier, buttress, or other architectural member. It is used especially in Gothic buildings.

PLAN. See *ground plan*.

PLATE TRACERY. A style of tracery in which pierced openings in an otherwise solid wall of stonework are filled with glass.

PLEIN-AIR. Sketching outdoors, often using paints, in order to capture the immediate effects of light on landscape and other subjects. Much encouraged by the Impressionists, their *plein-air* sketches were often taken back to the studio to produce finished paintings, but many *plein-air* sketches are considered masterworks.

PODIUM. (1) The tall base upon which rests an Etruscan or Roman temple. (2) The ground floor of a building made to resemble such a base.

POLYTYCH. An altarpiece or devotional work of art made of several panels joined together, often hinged.

PORCH. General term for an exterior appendage to a building that forms a covered approach to a doorway.

PORTA. Latin word for "door" or "gate."

PORTAL. A door or gate, usually a monumental one with elaborate sculptural decoration.

PORTICO. A columned porch supporting a roof or an entablature and pediment, often approached by a

number of steps. It provides a covered entrance to a building and a connection with the space surrounding it.

POST AND LINTEL. A basic system of construction in which two or more uprights, the posts, support a horizontal member, the lintel. The lintel may be the topmost element or support a wall or roof.

POUNCEING. A technique for transferring a drawing from a cartoon to a wall or other surface by pricking holes along the principal lines of the drawing and forcing fine charcoal powder through them onto the surface of the wall, thus reproducing the design on the wall.

POUSSINISTES. Those artists of the French Academy at the end of the 17th century and the beginning of the 18th century who favored "drawing," which they believed appealed to the mind rather than the senses. The term derived from admiration for the French artist Nicolas Poussin. See *Rubénistes*.

PREDELLA. The base of an altarpiece, often decorated with small scenes that are related in subject to that of the main panel or panels.

PREFIGURATION. The representation of Old Testament figures and stories as forerunners and foreshadowers of those in the New Testament.

PRIMITIVISM. The appropriation of non-Western (e.g., African, tribal, Polynesian) art styles, forms, and techniques by Modern era artists as part of innovative and avant-garde artistic movements; other sources were also used, including the work of children and the mentally ill.

PRINT. A picture or design reproduced, usually on paper and often in numerous copies, from a prepared wood block, metal plate, stone slab, or photograph.

PRONAOS. In a Greek or Roman temple, an open vestibule in front of the *cella*.

PRONK. A word meaning ostentatious or sumptuous; it is used to refer to a still life of luxurious objects.

PROPYLAEUM (pl. **PROPYLAEA**). (1) The often elaborate entrance to a temple or other enclosure. (2) The monumental entry gate at the western end of the Acropolis in Athens.

PROVENANCE. The place of origin of a work of art and related information.

PSALTER. (1) The book of Psalms in the Old Testament, thought to have been written in part by David, king of ancient Israel. (2) A copy of the Psalms, sometimes arranged for liturgical or devotional use and often richly illuminated.

PULPIT. A raised platform in a church from which the clergy delivers a sermon or conducts the service. Its railing or enclosing wall may be elaborately decorated.

PUTTO (pl. **PUTTI**). A nude, male child, usually winged, often represented in classical and Renaissance art. Also called a cupid or amoretto when he carries a bow and arrow and personifies Love.

PYLON. Greek word for "gateway." (1) The monumental entrance building to an Egyptian temple or forecourt consisting either of a massive wall with sloping sides pierced by a doorway or of two such walls flanking a central gateway. (2) A tall structure at either side of a gate, bridge, or avenue marking an approach or entrance.

QIBLA. The direction toward Mecca, which Muslims face during prayer. The qibla wall in a mosque identifies this direction.

QUADRANT VAULT. A half-barrel vault designed so that instead of being semicircular in cross-section, the arch is one-quarter of a circle.

QUADRA RIPOSTATE. Painted scenes depicted in panels on the curved ceiling of a vault.

QUATREFOIL. An ornamental element composed of four lobes radiating from a common center.

RADIATING CHAPELS. Term for chapels arranged around the ambulatory (and sometimes the transept) of a medieval church.

RAYONNANT. The style of Gothic architecture, described as "radiant," developed at the Parisian court of Louis IX in the mid-13th century. Also referred to as *court style*.

READYMADE. An ordinary object that, when an artist gives it a new context and title, is transformed into an art object. Readymades were important features of the Dada and Surrealism movements of the early 20th century.

RED-FIGURED. A style of ancient Greek ceramic decoration characterized by red figures against a black background. This style of decoration developed toward the end of the 6th century BCE and replaced the earlier *black-figured* style.

REFECTORY. (1) A room for refreshment. (2) The dining hall of a masonry, college, or other large institution.

REFORMATION. The religious movement in the early 16th century that had for its object the reform of the Catholic church and led to the establishment of Protestant churches.

REGISTER. A horizontal band containing decoration, such as a relief sculpture or a fresco painting. When multiple horizontal layers are used, registers are useful in distinguishing between different visual planes and different time periods in visual narration.

REINFORCED CONCRETE. Concrete that has been made stronger, particularly in terms of tensile strength, by the imbedding of steel rods or steel mesh. Introduced in France ca. 1900. Many large modern buildings are only feasible through the use of reinforced concrete.

RELIEF. (1) The projection of a figure or part of a design from the background or plane on which it is carved or modeled. Sculpture done in this manner is described as "high relief" or "low relief" depending on the height of the projection. When it is very shallow, it is called *schacciato*, the Italian word for "flattened out." (2) The apparent projection of forms represented in a painting or drawing. (3) A category of printmaking in which lines raised from the surface are inked and printed.

RELIQUARY. A container used for storing or displaying relics.

RESPOND. (1) A half-pier, pilaster, or similar element projecting from a wall to support a lintel or an arch whose other side is supported by a free-standing column or pier, as at the end of an arcade. (2) One of several pilasters on a wall behind a colonnade that echoes or "responds to" the columns but is largely decorative. (3) One of the slender shafts of a compound pier in a medieval church that seems to carry the weight of the vault.

RHYTON. An ancient drinking or pouring vessel made from pottery, metal, or stone, and sometimes designed in a human or animal form.

RIB. A slender, projecting, archlike member that supports a vault either transversely or at the groins, thus dividing the surface into sections. In Late Gothic architecture, its purpose is often primarily ornamental.

RIBBED VAULT. A style of vault in which projecting surface arches, known as ribs, are raised along the intersections of segments of the vault. Ribs may provide architectural support as well as decoration to the vault's surface.

ROMANESQUE. (1) The style of medieval architecture from the 11th to the 13th centuries that was based upon the Roman model and that used the Roman rounded arch, thick walls for structural support, and relatively small windows. (2) Any culture or its artifacts that are "Roman-like."

ROOD SCREEN. A partition in a church on which a crucifix (rood) is mounted and that separates the public nave area from the choir. See also *choir screen*.

ROSE WINDOW. A large, circular window with stained glass and stone tracery, frequently used on facades and at the ends of transepts in Gothic churches.

ROSTRUM (pl. **ROSTRA**). (1) A beaklike projection from the prow of an ancient warship used for ramming the enemy. (2) In the Roman forum, the raised platform decorated with the beaks of captured ships from which speeches were delivered. (3) A platform, stage, or the like used for public speaking.

ROTULUS (pl. **ROTULI**). The Latin word for scroll, a rolled written text.

RUBBING. A reproduction of a relief surface made by covering it with paper and rubbing with pencil, chalk, etc. Also called *frontage*.

RUBÉNISTES. Those artists of the French Academy at the end of the 17th century and the beginning of the 18th century who favored "color" in painting because it appealed to the senses and was thought to be true to nature. The term derived from admiration for the work of the Flemish artist Peter Paul Rubens. See *Poussinistes*.

RUSTICATION. A masonry technique of laying rough-faced stones with sharply indented joints.

SACRA CONVERSAZIONE. Italian for "holy conversation." A composition of the Madonna and Child with saints in which the figures all occupy the same spatial setting and appear to be conversing or communing with one another.

SACRISTY. A room near the main altar of a church, or a small building attached to a church, where the vessels and vestments required for the service are kept. Also called a *vestry*.

SALON. (1) A large, elegant drawing or reception room in a palace or a private house. (2) Official government-sponsored exhibition of paintings and sculpture by living artists held at the Louvre in Paris, first biennially, then annually. (3) Any large public exhibition patterned after the Paris Salon.

SANCTUARY. (1) A sacred or holy place or building. (2) An especially holy place within a building, such as the *cella* of a temple or the part of a church around the altar.

SARCOPHAGUS (pl. **SARCOPHAGI**). A large coffin, generally of stone, and often decorated with sculpture or inscriptions. The term is derived from two Greek words meaning "flesh" and "eating."

SATYR. One of a class of woodland gods thought to be the lascivious companions of Dionysos, the Greek god of wine (or of Bacchus, his Roman counterpart). They are represented as having the legs and tail of a goat, the body of a man, and a head with horns and pointed ears. A youthful satyr is also called a *faun*.

SAZ. Meaning literally "enchanted forest," this term describes the sinuous leaves and twining stems that are a major component of the *hatayi* style under the Ottoman Turks.

SCHIACCIATO. Italian for "flattened out." Describes low relief sculpture used by Donatello and some of his contemporaries.

SCIENTIFIC PERSPECTIVE. See *perspective*.

SCRIPTORIUM (pl. **SCRIPTORIA**). A workroom in a monastery reserved for copying and illustrating manuscripts.

SCROLL. (1) An architectural ornament with the form of a partially unrolled spiral, as on the capitals of the Ionic and Corinthian orders. (2) A form of written text.

SCUOLA. Italian word for school. In Renaissance Venice it designated a fraternal organization or confraternity dedicated to good works, usually under ecclesiastic auspices.

SECCO (or **A SECCO**). See *fresco secco* under *fresco*.

SECTION. An architectural drawing presenting a building as if cut across the vertical plane at right angles to the horizontal plane. A *cross section* is a cut along the

transverse axis. A *longitudinal section* is a cut along the longitudinal axis.

SELECTIVE WIPING. The planned removal of certain areas of ink during the etching process to produce changes in value on the finished print.

SEXPARTITE VAULT. See *vault*.

SFUMATO. Italian word meaning "smoky." Used to describe very delicate gradations of light and shade in the modeling of figures. It is applied especially to the work of Leonardo da Vinci.

SGRAFFITO ORNAMENT. A decorative technique in which a design is made by scratching away the surface layer of a material to produce a form in contrasting colors.

SHAFT. In architecture, the part of a column between the base and the capital.

SIBYLS. In Greek and Roman mythology, any of numerous women who were thought to possess powers of divination and prophecy. They appear on Christian representations, notably in Michelangelo's Sistine ceiling, because they were believed to have foretold the coming of Christ.

SIDE AISLE. A passageway running parallel to the nave of a Roman basilica or Christian church, separated from it by an arcade or colonnade. There may be one on either side of the nave or two, an inner and outer.

SILENI. A class of minor woodland gods in the entourage of the wine god, Dionysos (or Bacchus). Like Silenus, the wine god's tutor and drinking companion, they are thick-lipped and snub-nosed and fond of wine. Similar to satyrs, they are basically human in form except for having horses' tails and ears.

SILKSCREEN PRINTING. A technique of printing in which paint or ink is pressed through a stencil and specially prepared cloth to produce a previously designed image. Also called *serigraphy*.

SILVER LEAF. See *gold leaf*.

SILVERPOINT. A drawing instrument (stylus) of the 14th and 15th centuries made from silver; it produced a fine line and maintained a sharp point.

SILVER SALTS. Compounds of silver—bromide, chloride, and iodide—that are sensitive to light and are used in the preparation of photographic materials. This sensitivity was first observed by Johann Heinrich Schulze in 1725.

SINOPIA (pl. *SINOPIE*). Italian word taken from "Sinope," the ancient city in Asia Minor that was famous for its brick-red pigment. In fresco paintings, a full-sized, preliminary sketch done in this color on the first rough coat of plaster or *arriccio*.

SITE-SPECIFIC ART. Art that is produced in only one location, a location that is an integral part of the work and essential to its production and meaning.

SKETCH. A drawing, painting, or other artwork usually done quickly, as an aid to understanding and developing artistic skills; sometimes a sketch may lead to a more finished work of art.

SOCLE. A portion of the foundation of a building that projects outward as a base for a column or some other device.

SPANDREL. The area between the exterior curves of two adjoining arches or, in the case of a single arch, the area around its outside curve from its springing to its keystone.

SPHINX. (1) In ancient Egypt, a creature having the head of a man, animal, or bird and the body of a lion; frequently sculpted in monumental form. (2) In Greek mythology, a creature usually represented as having the head and breasts of a woman, the body of a lion, and the wings of an eagle. It appears in classical, Renaissance, and Neoclassical art.

SPIRE. A tall tower that rises high above a roof. Spires are commonly associated with church architecture and are frequently found on Gothic structures.

SPOLIA. Latin for "hide stripped from an animal." Term used for (1) spoils of war and (2) fragments of architecture or sculpture reused in a secondary context.

SPRINGING. The part of an arch in contact with its base.

SQUINCHES. Arches set diagonally at the corners of a square or rectangle to establish a transition to the round shape of the dome above.

STANZA (pl. *STANZE*). Italian word for "room."

STEEL. Iron modified chemically to have qualities of great hardness, elasticity, and strength.

STELE. From the Greek word for "standing block." An upright stone slab or pillar, sometimes with a carved design or inscription.

STEREOBATE. The substructure of a Classical building, especially a Greek temple.

STEREOSCOPE. An optical instrument that enables the user to combine two photographs taken from points of view corresponding to those of the two eyes. The combined single image has the depth and solidity of ordinary binocular vision. First demonstrated by Sir Charles Wheatstone in 1838.

STILL LIFE. A term used to describe paintings (and sometimes sculpture) that depict familiar objects such as household items and food.

STILTS. Term for pillars or posts supporting a superstructure; in 20th-century architecture, these are usually of ferroconcrete. Stilted, as in stilted arches, refers to tall supports beneath an architectural member.

STOA. In Greek architecture, a covered colonnade, sometimes detached and of considerable length, used as a meeting place or promenade.

STOIC. A member of a school of philosophy founded by Zeno about 300 BCE and named after the stoa in Athens where he taught. Its main thesis is that man should be free of all passions.

STRUCTURAL STEEL. Steel used as an architectural building material either invisibly or exposed.

STUCCO. (1) A concrete or cement used to coat the walls of a building. (2) A kind of plaster used for architectural decorations, such as cornices and moldings, or for sculptured reliefs.

STUDY. A preparatory sketch, drawing, painting, or other artwork that is used by an artist to explore artistic possibilities and solve problems before a more finished work is attempted. Often studies come to be regarded as finished works of art.

STYLOBATE. A platform or masonry floor above the stereobate forming the foundation for the columns of a Greek temple.

STYLUS. From the Latin word "stilus," the writing instrument of the Romans. (1) A pointed instrument used in ancient times for writing on tablets of a soft material such as clay. (2) The needlelike instrument used in drypoint or etching.

SUBLIME. In 19th-century art, the ideal and goal that art should inspire awe in a viewer and engender feelings of high religious, moral, ethical, and intellectual purpose.

SUNKEN RELIEF. Relief sculpture in which the figures or designs are modeled beneath the surface of the stone, within a sharp outline.

SUPERIMPOSED ORDERS. Two or more rows of columns, piers, or pilasters placed above each other on the wall of a building.

SYMPOSIUM. In ancient Greece, a gathering, sometimes of intellectuals and philosophers to discuss ideas, often in an informal social setting, such as at a dinner party.

TABERNACLE. (1) A place or house of worship. (2) A canopied niche or recess built for an image. (3) The portable shrine used by the ancient Jews to house the Ark of the Covenant.

TABLEAU VIVANT. A scene, usually derived from myth, the Bible, or literary sources, that is depicted by people standing motionless in costumes on a stage set.

TABLINUM. The Latin word meaning "writing tablet" or "written record." In a Roman house, a room at the far end of the atrium, or between the atrium and the second courtyard, used for keeping family records.

TEMPERA PAINTING. (1) A painting made with pigments mixed with egg yolk and water. In the 14th and 15th centuries, it was applied to panels that had been prepared with a coating of gesso; the application of gold leaf and of *underpainting* in green or brown preceded the actual tempera painting. (2) The technique of executing such a painting.

TENEBRISM. The intense contrast of light and dark in painting.

TERRA COTTA. Italian word for "baked earth." (1) Earthenware, naturally reddish-brown but often glazed in various colors and fired. Used for pottery, sculpture, or as a building material or decoration. (2) An object made of this material. (3) Color of the natural material.

TESSERA (pl. *TESSERAE*). A small piece of colored stone, marble, glass, or gold-backed glass used in a mosaic.

THEATER. In ancient Greece, an outdoor place for dramatic performances, usually semicircular in plan and provided with tiers of seats, the orchestra, and a support for scenery.

THEATINE ORDER. Founded in Rome in the 16th century by members of the recently dissolved Oratory of Divine Love. Its aim was to reform the Catholic church, and its members pledged to cultivate their spiritual lives and to perform charitable works.

THERMAE. A public bathing establishment of the ancient Romans that consisted of various types of baths and social gymnastic facilities.

THOLOS. A building with a circular plan, often with a sacred nature.

THRUST. The lateral pressure exerted by an arch, vault, or dome that must be counteracted at its point of greatest concentration either by the thickness of the wall or by some form of buttress.

TONDO. A circular painting or relief sculpture.

TRACERY. (1) Ornamental stonework in Gothic windows. In the earlier or plate tracery, the windows appear to have been cut through the solid stone. In bar tracery, the glass predominates, the slender pieces of stone having been added within the windows. (2) Similar ornamentation using various materials and applied to walls, shrines, façades, etc.

TRANSEPT. A cross arm in a basilican church placed at right angles to the nave and usually separating it from the choir or apse.

TRANSVERSALS. In a perspective construction, transversals are the lines parallel to the picture plane (horizontally) that denote distances. They intersect orthogonals to make a grid that guides the arrangement of elements to suggest space.

TREE OF KNOWLEDGE. The tree in the Garden of Eden from which Adam and Eve ate the forbidden fruit that destroyed their innocence.

TREE OF LIFE. A tree in the Garden of Eden whose fruit was reputed to give everlasting life; in medieval art it was frequently used as a symbol of Christ.

TRIBUNE. A platform or walkway in a church constructed overlooking the *aisle* and above the *nave*.

TRIFORIUM. The section of a nave wall above the arcade and below the clerestory. It frequently consists of a blind arcade with three openings in each bay. When the gallery is also present, a four-story elevation results, the triforium being between the gallery and clerestory. It may also occur in the transept and the choir walls.

TRIGLYPH. The element of a Doric frieze separating two consecutive metopes and divided by grooves into three sections.

TRIPTYCH. An altarpiece or devotional picture, either carved or painted, with one central panel and two hinged wings.

TRIUMPHAL ARCH. (1) A monumental arch, sometimes a combination of three arches, erected by a Roman emperor in commemoration of his military exploits and usually decorated with scenes of these deeds in relief sculpture. (2) The great transverse arch at the eastern end of a church that frames altar and apse and separates them from the main body of the church. It is frequently decorated with mosaics or mural paintings.

TROIS CRAYONS. The use of three colors, usually red, black, and white, in a drawing; a technique popular in the 17th and 18th centuries.

TROMPE L'OEIL. Meaning "trick of the eye" in French, it is a work of art designed to deceive a viewer into believing that the work of art is reality, an actual three-dimensional object or scene in space.

TROPHY. (1) In ancient Rome, arms or other spoils taken from a defeated enemy and publicly displayed on a tree, pillar, etc. (2) A representation of these objects, and others symbolic of victory, as a commemoration or decoration.

TRUMEAU. A central post supporting the lintel of a French doorway, as in a Romanesque or Gothic portal, where it is frequently decorated with sculpture.

TRUSS. A triangular wooden or metal support for a roof that may be left exposed in the interior or be covered by a ceiling.

TURRET. (1) A small tower that is part of a larger structure. (2) A small tower at a corner of a building, often beginning some distance from the ground.

TUSCHE. An inklike liquid containing crayon that is used to produce solid black (or solid color) areas in prints.

TYMPANUM. (1) In Classical architecture, a recessed, usually triangular area often decorated with sculpture. Also called a pediment. (2) In medieval architecture, an arched area between an arch and the lintel of a door or window, frequently carved with relief sculpture.

TYOLOGY. The matching or pairing of pre-Christian figures, persons, and symbols with their Christian counterparts.

UNDERPAINTING. See *tempera painting*.

VANISHING POINT. The point at which the orthogonals meet and disappear in a composition done with scientific perspective.

VANITAS. The term derives from the book of Ecclesiastes 1:2 ("Vanities of vanities, ...") that refers to the passing of time and the notion of life's brevity and the inevitability of death. The vanitas theme found expression especially in the Northern European art of the 17th century.

VAULT. An arched roof or ceiling usually made of stone, brick, or concrete. Several distinct varieties have been developed; all need buttressing at the point where the lateral thrust is concentrated. (1) A barrel vault is a semicircular structure made up of successive arches. It may be straight or annular in plan. (2) A groin vault is the result of the intersection of two barrel vaults of equal size that produces a bay of four compartments with sharp edges, or groins, where the two meet. (3) A ribbed groin vault is one in which ribs are added to the groins for structural strength and for decoration. When the diagonal ribs are constructed as half-circles, the resulting form is a domical ribbed vault. (4) A sexpartite vault is a ribbed groin vault in which each bay is divided into six compartments by the addition of a transverse rib across the center. (5) The normal Gothic vault is quadripartite with all the arches pointed to some degree. (6) A fan vault is an elaboration of a ribbed groin vault, with elements of tracery using cone-like forms. It was developed by the English in the 15th century and was employed for decorative purposes.

VEDUTA (pl. VEDUTE). A view painting, generally a city landscape.

VELLUM. See *Parchment*.

VERISTIC. From the Latin *verus*, meaning "true." Describes a hyperrealistic style of portraiture that emphasizes individual characteristics.

VESTRY. A chamber in a church where the vestments (clerical garbs) and sacramental vessels are maintained. Also called a *sacristy*.

VICES. Often represented allegorically in conjunction with the seven virtues, they include Pride, Envy, Avarice, Wrath, Gluttony, Lust, and Sloth, though others such as Injustice and Folly are sometimes substituted.

VILLA. Originally a large country house but in modern usage also a detached house or suburban residence.

VIRTUES. The three theological virtues, Faith, Hope, and Charity, and the four cardinal ones, Prudence, Justice, Fortitude, and Temperance, were frequently represented allegorically, particularly in medieval manuscripts and sculpture.

VOLUTE. A spiraling architectural element found notably on Ionic and Composite capitals but also used decoratively on building façades and interiors.

VOTIVE. A devotional image used in the veneration or worship of a deity or saint.

VOUSSOIR. A wedge-shaped piece of stone used in arch construction.

WASH. A thin layer of translucent color or ink used in watercolor painting and brush drawing, and occasionally in oil painting.

WATERCOLOR PAINTING. Painting, usually on paper, in pigments suspended in water.

WEBS. Masonry construction of brick, concrete, stone, etc. that is used to fill in the spaces between groin vault ribs.

WESTWORK. From the German word *Westwerk*. In Carolingian, Ottonian, and German Romanesque architecture, a monumental western front of a church, treated as a tower or combination of towers and containing an entrance and vestibule below and a chapel and galleries above. Later examples often added a transept and a crossing tower.

WING. The side panel of an altarpiece that is frequently decorated on both sides and is also hinged, so that it may be shown either open or closed.

WOODCUT. A print made by carving out a design on a wooden block cut along the grain, applying ink to the raised surfaces that remain, and printing from those.

WROUGHT IRON. A comparatively pure form of iron that is easily forged and does not harden quickly, so that it can be shaped or hammered by hand, in contrast to molded cast iron.

WUNDERKAMMER (pl. WUNDERKAMMERN). Literally a "room of wonders." This forerunner of the museum developed in the 16th century. Such rooms displayed wonders of the world, often from exotic, far off places. The objects displayed included fossils, shells, coral, animals (bones, skins, etc.), and gems in an effort to form an encyclopedic collection. See *kunstkammer*.

ZIGGURAT. From the Assyrian word *zigguratu*, meaning "mountaintop" or "height." In ancient Assyria and Babylonia, a pyramidal mound or tower built of mud-brick forming the base for a temple. It was often either stepped or had a broad ascent winding around it, which gave it the appearance of being stepped.

ZODIAC. An imaginary belt circling the heavens, including the paths of the sun, moon, and major planets and containing twelve constellations and thus twelve divisions called signs, which have been associated with the months. The signs are Aries, the ram; Taurus, the bull; Gemini, the twins; Cancer, the crab; Leo, the lion; Virgo, the virgin; Libra, the balance; Scorpio, the scorpion; Sagittarius, the archer; Capricorn, the goat; Aquarius, the waterbearer; and Pisces, the fish. They are frequently represented around the portals of Romanesque and Gothic churches in conjunction with the Labors of the Months.