

ART 16TH EDITION through AGES

FRED S. KLEINER

GARDNER'S

ART THROUGH THE AGES

A GLOBAL HISTORY

VOLUME I

SIXTEENTH EDITION

FRED S. KLEINER



 ${\sf Australia \bullet Brazil \bullet Mexico \bullet Singapore \bullet United \ Kingdom \bullet United \ States}$



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ABOUT THE COVER ART



Blanche of Castile, Louis IX, a monk, and a lay scribe, dedication page (folio 8 recto) of a moralized Bible, from Paris, France, 1226–1234. Ink, tempera, and gold leaf on vellum, $1'3'' \times 10\frac{1}{2}''$. Pierpont Morgan Library, New York.

The Florentine poet Dante Alighieri (1265–1321) referred to Paris in his *Divine Comedy* (ca. 1310–1320) as the city famed for the art of illumination. During the 13th century, book production shifted from monasteries to urban workshops of professional artists—and Paris boasted the most and best. These new for-profit secular businesses sold their products to the royal family, scholars, and prosperous merchants. The Parisian shops were the forerunners of modern publishing houses.

Not surprisingly, some of the finest extant Gothic books belonged to the French monarchy. One of the many books the royal family commissioned is a moralized Bible now in the Pierpont Morgan Library. Moralized Bibles are heavily illustrated, each page pairing paintings of Old and New Testament episodes with explanations of their moral significance. Louis's mother, Blanche of Castile, ordered the Morgan Bible during her regency (1226–1234) for her teenage son. The dedication page has a costly gold background and depicts Blanche and Louis enthroned beneath triple-lobed arches and miniature cityscapes. With vivid gestures, Blanche instructs the young Louis, underscoring her superior position. Below Blanche and Louis are a monk and a professional lay scribe. The older clergyman instructs the scribe, who already has divided his page into two columns of four roundels each, a format often used for the paired illustrations of moralized Bibles.

The identity of the painter of this royal moralized Bible is unknown, but that is the norm in the history of Western art before the Renaissance of the 14th century, when the modern notion of individual artistic genius took root. Art through the Ages surveys the art of all periods from prehistory to the present, and worldwide, and examines how artworks of all kinds have always reflected the historical contexts in which they were created.

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PREFACE

I take great pleasure in introducing the extensively revised and expanded 16th edition of *Gardner's Art through the Ages: A Global History*, which, like the 15th edition, is a hybrid art history textbook—the first, and still the only, introductory survey of the history of art of its kind. This innovative new kind of "Gardner" retains all of the best features of traditional books on paper while harnessing 21st-century technology to increase by 25% the number of works examined—without increasing the size or weight of the book itself and at only nominal additional cost to students.

When Helen Gardner published the first edition of *Art through the Ages* in 1926, she could not have imagined that nearly a century later, instructors all over the world would still be using her textbook (available even in a new Chinese edition, the third time this classic textbook has been translated into Chinese) in their classrooms. Indeed, if she were alive today, she would not recognize the book that, even in its traditional form, long ago became—and remains—the world's most widely read introduction to the history of art and architecture. I hope that instructors and students alike will agree that this new edition lives up to the venerable Gardner tradition and even exceeds their high expectations.

The 16th edition follows the 15th in incorporating an innovative new online component called MindTap™, which includes, in addition to a host of other features (enumerated below), MindTap Bonus Images (with zoom capability) and descriptions of more than 300 additional important works of all eras, from prehistory to the present and worldwide. The printed and online components of the hybrid 16th edition are very closely integrated. For example, each MindTap Bonus Image appears as a thumbnail in the traditional textbook, with abbreviated caption, to direct readers to MindTap for additional content, including an in-depth discussion of each image. The integration extends also to the maps, index, glossary, and chapter summaries, which seamlessly merge the printed and online information.

KEY FEATURES OF THE 16TH EDITION

In this new edition, in addition to revising the text of every chapter to incorporate the latest research and methodological developments and dividing the former chapter on European and American art from 1900 to 1945 into two chapters, I have added several important features while retaining the basic format and scope of the previous edition. Once again, the hybrid Gardner boasts roughly 1,700 photographs, plans, and drawings, nearly all in color and reproduced according to the highest standards of clarity and color fidelity, including hundreds of new images, among them a new series of superb photos taken by Jonathan Poore exclusively for *Art through the Ages* during a photographic campaign in England in 2016

(following similar forays into France, Tuscany, Rome, and Germany for the 14th and 15th editions). MindTap also includes custom videos made on these occasions at each site by Sharon Adams Poore. This extraordinary proprietary Cengage archive of visual material ranges from ancient temples and aqueducts in Rome and France; to medieval, Renaissance, and Baroque churches in England, France, Germany, and Italy and 18th-century landscape architecture in England; to such postmodern masterpieces as the Pompidou Center and the Louvre Pyramide in Paris, the Neue Staatsgalerie in Stuttgart, and the Gherkin in London. The 16th edition also features the highly acclaimed architectural drawings of John Burge prepared exclusively for Cengage, as well as Google Earth coordinates for all buildings and sites and all known provenances of portal objects. Together, these exclusive photographs, videos, and drawings provide readers with a visual feast unavailable anywhere else.

Once again, scales accompany the photograph of every painting, statue, or other artwork discussed—another innovative feature of the Gardner text. The scales provide students with a quick and effective way to visualize how big or small a given artwork is and its relative size compared with other objects in the same chapter and throughout the book—especially important given that the illustrated works vary in size from tiny to colossal.

Also retained in this edition are the Quick-Review Captions (brief synopses of the most significant aspects of each artwork or building illustrated) that students have found invaluable when preparing for examinations. These extended captions accompany not only every image in the printed book but also all the digital images in MindTap, where they are also included in a set of interactive electronic flashcards. Each chapter also again ends with the highly popular full-page feature called *The Big Picture*, which sets forth in bullet-point format the most important characteristics of each period or artistic movement discussed in the chapter. Also retained from the 15th edition are the timelines summarizing the major artistic and architectural developments during the era treated (again in bullet-point format for easy review) and a chapter-opening essay called *Framing the Era*, which discusses a characteristic painting, sculpture, or building and is illustrated by four photographs.

Another pedagogical tool not found in any other introductory art history textbook is the *Before 1300* section that appears at the beginning of the second volume of the paperbound version of the book. Because many students taking the second half of a survey course will not have access to Volume I, I have provided a special (expanded) set of concise primers on architectural terminology and construction methods in the ancient and medieval worlds, and on mythology and religion—information that is essential for understanding the history of art after 1300 in both the West and the East. The subjects of these special essays are Greco-Roman Temple Design and the Classical Orders; Arches and Vaults; Basilican Churches; Central-Plan Churches; the Gods and Goddesses

of Mount Olympus; the Life of Jesus in Art; Early Christian Saints and Their Attributes; Buddhism and Buddhist Iconography; and Hinduism and Hindu Iconography. Before 1300 also is included in MindTap for all courses.

Feature boxes once again appear throughout the book as well. These features fall under nine broad categories, one of which is new to the 16th edition:

Architectural Basics boxes provide students with a sound foundation for the understanding of architecture. These discussions are concise explanations, with drawings and diagrams, of the major aspects of design and construction. The information included is essential to an understanding of architectural technology and terminology.

Materials and Techniques essays explain the various media that artists have employed from prehistoric to modern times. Because materials and techniques often influence the character of artworks, these discussions contain essential information on why many monuments appear as they do.

Religion and Mythology boxes introduce students to the principal elements of the world's great religions, past and present, and to the representation of religious and mythological themes in painting and sculpture of all periods and places. These discussions of belief systems and iconography give readers a richer understanding of some of the greatest artworks ever created.

Art and Society essays treat the historical, social, political, cultural, and religious context of art and architecture. In some instances, specific monuments are the basis for a discussion of broader themes.

Written Sources boxes present and discuss key historical documents illuminating important monuments of art and architecture throughout the world. The passages quoted permit voices from the past to speak directly to the reader, providing vivid and unique insights into the creation of artworks in all media.

In the Artists on Art boxes, artists and architects throughout history discuss both their theories and individual works.

The Patron's Voice essays underscore the important roles played by the individuals and groups who paid for the artworks and buildings in determining the character of those monuments.

Problems and Solutions essays are designed to make students think critically about the decisions that went into the making of every painting, sculpture, and building from the Old Stone Age to the present. These discussions address questions of how and why various forms developed; the problems that painters, sculptors, and architects confronted; and the solutions they devised to resolve them.

New to the 16th edition are boxes titled A Second Opinion, in which an individual work of art that is the subject of current debate or has recently been reinterpreted is discussed. These essays underscore for students that the history of art and architecture is not a static discipline and that scholars are constantly questioning and rethinking traditional interpretations of paintings, sculptures, and buildings.

Other noteworthy features retained from the 15th edition are the extensive (updated) bibliography of books in English; a glossary containing definitions of all italicized terms introduced in both the printed and online texts; and a complete museum index listing all illustrated artworks by their present location. The host of stateof-the-art resources in the 16th edition version of MindTap for Art through the Ages are enumerated on page xxix).

ACKNOWLEDGMENTS

A work as extensive as a global history of art could not be undertaken or completed without the counsel of experts in all areas of world art. As with previous editions, Cengage has enlisted dozens of art historians to review every chapter of Art through the Ages in order to

ensure that the text lives up to the Gardner reputation for accuracy as well as readability. I take great pleasure in acknowledging here the important contributions to the 16th edition made by the following: Bradley Bailey, Saint Louis University; Amy Bloch, University at Albany; Anne-Marie Bouché, Florida Gulf Coast University; Betty Brownlee, Macomb Community College; Caroline Bruzelius, Duke University; Petra Chu, Seton Hall University; Kathy Curnow, Cleveland State University; Paola Demattè, Rhode Island School of Design; Sarah Dillon, Kingsborough City College, City University of New York; Eduardo de Jesús Douglas, University of North Carolina-Chapel Hill; Sonja Drimmer, University of Massachusetts Amherst; Ingrid Furniss, Lafayette College; Karen Hope Goodchild, Wofford College; Christopher Gregg, George Mason University; Melinda Hartwig, Emory University; Joe Hawkins, Hagley Park; Peter Holliday, California State University, Long Beach; Craig Houser, City College of New York/City University of New York; Margaret Jackson, University of New Mexico; Mark J. Johnson, Brigham Young University; Lynn Jones, Florida State University; Tanja L. Jones, University of Alabama Tuscaloosa; Nancy Klein, Texas A&M; Peri Klemm, California State University, Northridge; Yu Bong Ko, Dominican College; Paul Lavy, University of Hawai'i at Manoa; John Listopad, California State University, Sacramento; Gary Liu Jr., University of Hawaii at Manoa; Nancy Bea Miller, Montgomery County Community College; Michelle Moseley-Christian, Virginia Tech University; Evan Neely, Pratt Institute; Huiping Pang, University of Iowa; Benjamin Paul, Rutgers University; Julie-Anne Plax, University of Arizona; Stephanie Porras, Tulane University; Sharon Pruitts, East Carolina University; Kurt Rahmlow, University of North Texas; Julie Risser, Minneapolis College of Art and Design; Robyn Roslak, University of Minnesota-Duluth; Susan Elizabeth Ryan, Louisiana State University; Nicholas Sawicki, Lehigh University; Nancy Serwint, Arizona State University; Kerri Cox Sullivan, University of Texas, Austin; James R. Swensen, Brigham Young University; David S. Whitley, University of California, Los Angeles/ASM Affiliates; Margaret L. Woodhull, University of Colorado Denver.

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Fred S. Kleiner

CHAPTER-BY-CHAPTER CHANGES IN THE 16TH EDITION

The 16th edition is extensively revised and expanded, as detailed below. Instructors will find a very helpful figure number transition guide on the online instructor companion site.

Introduction: What Is Art History? Added the head of the portrait of Augustus as pontifex maximus from the Via Labicana, Rome.

- 1: Art in the Stone Age. Revised and expanded discussion of chronology and current theories about Paleolithic art, including a new A Second Opinion essay "The Meaning of Paleolithic Art." New Art and Society essay "The Neolithic Temple at Göbekli Tepe." New photographs of the passage grave at Newgrange and the circles of trilithons at Stonehenge.
- **2: Ancient Mesopotamia and Persia.** Added the Babylonian *Queen of the Night*, the Kalhu panel of Assyrians besieging a citadel, and a bull protome capital from Achaemenid Susa. Revised chronology of Sumerian art and expanded discussion of the Royal Cemetery at Ur with a new A Second Opinion essay "The *Standard of Ur.*" Revised discussion and dating of the Sasanian palace at Ctesiphon. New photographs of the cylinder seal of Puabi, the portrait head of an Akkadian ruler, the lamassu from the palace of Sargon II, and the Nineveh panel of Ashurbanipal hunting lions.
- **3:** Egypt from Narmer to Cleopatra. Added the colossal head of Senusret III in Kansas City. New A Second Opinion essay "Akhenaton." New photographs of the columnar entrance corridor of the funerary precinct of Djoser at Saqqara, the exterior and interior of the Temple of Ramses II at Abu Simbel, the Temple of Amen-Re and the hypostyle hall at Karnak, Thutmose's portrait of Nefertiti, the sunken relief in Berlin of the family of Akhenaton, and the sphinx of Taharqo in the British Museum.
- **4:** The Prehistoric Aegean. New A Second Opinion essay "Cycladic Statuettes." New photographs of the Hagia Triada sarcophagus, the Akrotiri *Spring Fresco*, the corbel-vaulted gallery in the fortification walls of Tiryns, the Lion Gate and the interior of the Treasury of Atreus at Mycenae, and the Mycenaean painted female head in the Athens National Archaeological Museum.
- **5: Ancient Greece.** Added a second centauromachy metope, the horse of Selene from the east pediment, the river god Ilissos and Iris from the west pediment, and the peplos ceremony of the east frieze of the Parthenon; and the lion hunt pebble mosaic from Pella. New A Second Opinion essay "The *Alexander Mosaic.*" New photographs of the west pediment of the Temple of Artemis, Corfu; the *Charioteer of Delphi*; the herm of Pericles in the Vatican; metope 28, Helios and Dionysos and the three goddesses of the east pediment, and the horsemen and maidens of the Pana-

thenaic procession frieze of the Parthenon; the Temple of Athena Nike and the caryatids of the Erechtheion on the Athenian Acropolis; the Tomb of the Diver, Paestum; the *Farnese Hercules*; and the Stoa of Attalos in the Athenian agora.

- **6: The Etruscans.** New Framing the Era essay "The Portal to the Etruscan Afterlife." New A Second Opinion essay "The *Capitoline Wolf.*" New photographs of the Tomb of the Augurs and the *Capitoline Wolf.*
- 7: The Roman Empire. Added the portraits of a Republican priest in the Vatican Museums and of Pompey the Great in Venice. New Framing the Era essay "The Roman Emperor as World Conqueror." New A Second Opinion essay "The Arch of Constantine." New photographs of the Temple of Portunus, Rome; the Temple of Vesta, Tivoli; the funerary relief of the Gessii in Boston; the funerary procession relief from Amiternum; the gardenscape from the Villa of Livia at Primaporta; the Ara Pacis Augustae, Rome (general view and Tellus panel); the Pont-du-Gard, Nîmes; the Porta Maggiore, Rome; the facade of the Colosseum, Rome; the portrait of a Flavian woman in the Museo Capitolino; the spoils relief of the Arch of Titus, Rome; four details of the spiral frieze of the Column of Trajan, Rome; the portrait of Hadrian in the Palazzo Massimo; the exterior of the Pantheon, Rome; the apotheosis and decursio reliefs of the Column of Antoninus Pius, Rome; the portrait of Caracalla in Berlin; the portrait of Trajan Decius in the Museo Capitolino; the portrait of Philip the Arabian in the Vatican Museums; the Ludovisi Battle Sarcophagus; the Temple of Venus, Baalbek; and the Arch of Constantine, Rome.
- 8: Late Antiquity. Added the baptistery of the Christian community house at Dura-Europos, the Anastasis Rotunda of the Church of the Holy Sepulchre in Jerusalem, and the mosaics of the chancel arch of Santa Maria Maggiore in Rome. New Framing the Era essay "Polytheism and Monotheism at Dura-Europos." New A Second Opinion essay "The Via Latina Catacomb." New photographs of the Dura-Europos baptistery, the Santa Maria Antiqua sarcophagus, two details of the Catacomb of Commodilla in Rome, and the ivory diptych of the Symmachi.
- **9: Byzantium.** Added the pedestal of the Theodosian obelisk in the Constantinople hippodrome. New A Second Opinion essay "The *Vienna Genesis.*" New photographs of the apse of San Vitale at Ravenna, the interior of the Cappella Palatina at Palermo, and the exterior of the church of Saint Catherine at Thessaloniki.
- **10: The Islamic World.** New A Second Opinion essay "The Rock of the Dome of the Rock." New photographs of the exterior and interior of the Dome of the Rock, the Umayyad palace at Mshatta, and the pyxis of al-Mughira.
- 11: Early Medieval Europe. New Framing the Era essay "Missionaries and the Beauty of God's Words." New A Second Opinion essay "The Lindisfarne Saint Matthew." New Problems and Solutions essay "How to Illustrate a Psalm." New photographs of the Oseberg ship, San Juan Bautista at Baños de Cerrato, and the bronze doors of St. Michael's at Hildesheim.
- 12: Romanesque Europe. New Framing the Era essay "The Blessed and the Damned on Judgment Day." New Written Sources essay "The Burning of Canterbury Cathedral." Two new Problems and Solutions essays "Stone Vaulting in Romanesque Churches" and "How to Illuminate a Nave." New A Second Opinion essay "The Rebirth of Large-Scale Sculpture in Romanesque Europe." New photographs of the west tympanum *Last Judgment* at Autun (three new details), the *Tower of Babel* on the nave vault of Saint-Savin-sur-Gartempe, the interior and atrium of Sant'Ambrogio at Milan, and the nave of Durham Cathedral.

13: Gothic Europe North of the Alps. Added the head of Moses from the west facade of Saint-Denis; Wells and Exeter Cathedrals; and a discussion of the Decorated style of English Gothic architecture. New Framing the Era essay "The Birth of Gothic." New Art and Society essay "Louis IX, the Saintly King." New A Second Opinion essay "Gothic Cathedrals and Gothic Cities." New photographs of Chartres Cathedral (aerial view and nave), Reims Cathedral (west facade), Sainte-Chapelle in Paris (interior), Salisbury Cathedral (west facade, statue of Bishop Poore, and nave), Gloucester Cathedral (choir and tomb of Edward II), the exterior of the Chapel of Henry VII in Westminster Abbey, Nicholas of Verdun's *Shrine of the Three Kings*, and the choir of Cologne Cathedral.

14: Late Medieval Italy. New Framing the Era essay "Duccio di Buoninsegna." New A Second Opinion essay "Pietro Cavallini." New Problems and Solutions essay "Cityscapes and Landscapes as Allegories." Two new photographs of Pietro Cavallini's *Last Judgment* in Santa Cecilia in Trastevere.

15: South and Southeast Asia before 1200. Extensively revised text with expansion of the section on Southeast Asia, especially Borobudur. New A Second Opinion essay "The Ganges River or the Penance of Arjuna?" New photographs of the Great Stupa at Sanchi (general view and yakshi of the east torana), the Bodhisattva Padmapani mural painting in cave 1 at Ajanta, Borobudur (aerial view, relief of Sudhana visiting Manjushri, and seated Buddha and hollow stupas of the highest circular terrace), and Angkor Wat (aerial view).

16: China and Korea to 1279. Extensive text revisions. Added the Nanchan Temple on Mount Wutai. New A Second Opinion essay "Sanxingdui." New photographs of the terracotta army of Shi Huangdi (general view and three details), the Vairocana Buddha of the Fengxian Temple at Luoyang, the Fogong Si Pagoda at Yingxian, and the United Silla cave temple at Seokguram.

17: Japan before 1333. Revised Framing the Era essay "Horyuji, Japan's Oldest Buddhist Temple." New A Second Opinion essay "Kofun Haniwa." New photographs of a haniwa warrior from Gunma Prefecture, the honden of the Ise Jingu, the kondo and Amida triad mural at Horyuji, the Daibutsuden and Unkei's Agyo at Todaiji, and the Phoenix Hall of the Byodoin at Uji.

18: Native American Cultures before 1300. Added a Moche portrait-head vessel in Houston and Lintel 25 of Structure 23, Yaxchilán. New Framing the Era essay "Ancient Cities in a New World." New Art and Society essay "Human Sacrifice at Bonampak." New photographs of the Temple of the Sun and the Temple of the Feathered Serpent at Teotihuacán, the ball court at Copán, and the Castillo, Caracol, and ball court at Chichén Itzá.

19: Africa before 1800. Added a Nok culture fragmentary figure of a woman in Houston. Revised Framing the Era essay "The Art of the Benin Kingdom." New A Second Opinion essay "The Seated Man from Tada." New photographs of the copper statuette from Tada, Beta Giorghis at Lalibela, and the circuit walls and bird-and-crocodile monolith of Great Zimbabwe.

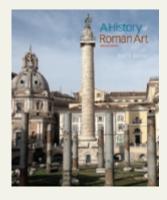
ABOUT THE AUTHOR

Fred S. Kleiner



FRED S. KLEINER (Ph.D., Columbia University) has been the author or coauthor of *Gardner's Art through the Ages* beginning with the 10th edition in 1995. He has also published more than a hundred books, articles, and reviews on Greek and Roman art and architecture, including *A History of Roman Art*, also published by Cengage Learning. Both *Art through the Ages* and the book on Roman art have been awarded Texty prizes as the outstanding college textbook of the year in the humanities and social sciences, in 2001 and 2007, respectively. Professor Kleiner has taught the art history survey course since 1975, first at the University of Virginia and, since 1978, at Boston University, where he is currently professor of the history of art and architecture and classical archaeology and has served as department chair for five terms, most recently from 2005 to 2014. From 1985 to 1998, he was editor-in-chief of the *American Journal of Archaeology*.

Long acclaimed for his inspiring lectures and devotion to students, Professor Kleiner won Boston University's Metcalf Award for Excellence in Teaching as well as the College Prize for Undergraduate Advising in the Humanities in 2002, and he is a two-time winner of the Distinguished Teaching Prize in the College of Arts & Sciences Honors Program. In 2007, he was elected a Fellow of the Society of Antiquaries of London, and, in 2009, in recognition of lifetime achievement in publication and teaching, a Fellow of the Text and Academic Authors Association.



Also by Fred Kleiner: *A History of Roman Art, Second Edition* (Cengage Learning 2018; ISBN 9781337279505), winner of the 2007 Texty Prize for a new college textbook in the humanities and social sciences. In this authoritative and lavishly illustrated volume, Professor Kleiner traces the development of Roman art and architecture from Romulus's foundation of Rome in the eighth century BCE to the death of Constantine in the fourth century CE, with special chapters devoted to Pompeii and Herculaneum, Ostia, funerary and provincial art and architecture, and the earliest Christian art, with an introductory chapter on the art and architecture of the Etruscans and of the Greeks of South Italy and Sicily.

RESOURCES FOR STUDENTS AND INSTRUCTORS

MINDTAP FOR ART THROUGH THE AGES

MindTap for *Gardner's Art through the Ages: A Global History,* 16th edition, helps students engage with course content and achieve greater comprehension. Highly personalized, fully online, and completely mobile-optimized, the MindTap learning platform presents authoritative Cengage content, assignments, and services.

Students

MindTap guides you through your course via a learning path where you can annotate readings and take quizzes. Concepts are brought to life with zoomable versions of close to 1,700 images; videos to reinforce concepts and expand knowledge of particular works or art trends; numerous study tools, including mobile-optimized image flashcards; a glossary complete with an audio pronunciation guide; and more!

Instructors

You can easily tailor the presentation of each MindTap course and integrate activities into a learning management system. The Resources for Teaching folder in MindTap and the Instructor Companion Site hold resources such as instructions on how to use the online test bank; Microsoft PowerPoint slides with high-resolution images, which can be used as is or customized by importing personal lecture slides or other material; YouTube playlists organized by chapter; course learning objectives; and more.

MINDTAP MOBILE

Gardner's Art through the Ages: A Global History, 16th edition, is now more accessible than ever with the MindTap Mobile App, empowering students to learn on their terms—anytime, anywhere, online or off.

- The MindTap eReader provides convenience as students can read or listen to their eBook on their smartphone, take notes, and highlight important passages.
- Flashcards and quizzing cultivate confidence. Students have instant access to readymade flashcards, study games, and quizzes to engage key concepts and confidently prepare for exams.
- Notifications keep students connected. Due dates are never forgotten with MindTap Mobile course notifications, which push assignment reminders, score updates, and instructor messages directly to students' smartphones.

LECTURE NOTES & STUDY GUIDES

The Lecture Notes & Study Guide for each chapter is a lecture companion that allows students to take notes alongside the images shown in class. This resource includes reproductions of the images from the reading, with full captions and space for note-taking either on a computer or on a printout. It also includes a chapter summary, key terms list, and learning objectives checklist.

GOOGLE EARTH

Take a virtual tour of art through the ages! Resources for the 16th edition include Google Earth coordinates for all works, monuments, and sites discussed in the reading, encouraging students to make geographical connections between places and sites. Instructors can use these coordinates to start lectures with a virtual journey to locations all over the globe or take aerial screenshots of important sites to incorporate into lecture materials.



▲ I-1a Art historians seek to understand not only why artworks appear as they do but also why those works exist at all. Who paid this African artist to make this altar? Can the figures represented provide the answer?



▶I-1c At the bottom of the altar is a band with hands and other symbols, but no artist's signature or date. How can art historians determine when an unlabeled work such as this one was made and by and for whom?



I-1 Altar to the Hand (ikegobo), from Benin, Nigeria, ca. 1735–1750. Bronze, 1' 5½" high. British Museum, London (gift of Sir William Ingram).

◄I-1b What tools and techniques did this sculptor employ to transform molten bronze into this altar representing a Benin king and his attendants projecting in high relief from the background plane?



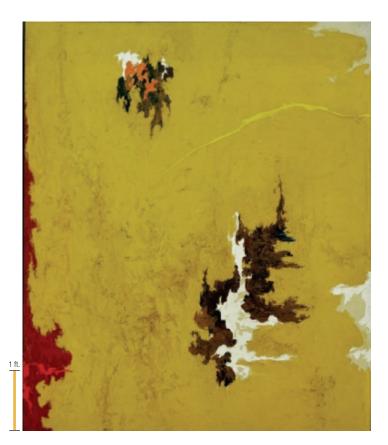
INTRODUCTION

WHAT IS ART HISTORY?

What is art history? Except when referring to the modern academic discipline, people do not often juxtapose the words *art* and *history*. They tend to think of history as the record and interpretation of past human events, particularly social and political events. By contrast, most think of art, quite correctly, as part of the present—as something people can see and touch. Of course, people cannot see or touch history's vanished human events, but a visible, tangible artwork is a kind of persisting event. One or more artists made it at a certain time and in a specific place, even if no one now knows who, when, where, or why. Although created in the past, an artwork continues to exist in the present, long surviving its times. The earliest known paintings and sculptures were created almost 40,000 years ago, but they can be viewed today, often in glass cases in museums built only during the past few years.

Modern museum visitors can admire these objects from the remote past and countless others produced over the millennia—whether a large painting on canvas by a 17th-century French artist (FIG. I-12), a wood portrait from an ancient Egyptian tomb (FIG. I-15), an illustrated book by a medieval German monk (FIG. I-8), or an 18th-century bronze altar glorifying an African king (FIG. I-1)—without any knowledge of the circumstances leading to the creation of those works. The beauty or sheer size of an object can impress people, the artist's virtuosity in the handling of ordinary or costly materials can dazzle them, or the subject depicted can move them emotionally. Viewers can react to what they see, interpret the work in the light of their own experience, and judge it a success or a failure. These are all valid aesthetic responses. (*Aesthetics* is the branch of philosophy that addresses the nature of beauty, especially in art.) But the enjoyment and appreciation of artworks in museum settings are relatively recent phenomena, as is the creation of artworks solely for museum-going audiences to view.

Today, it is common for artists to work in private studios and to create paintings, sculptures, and other objects to be offered for sale by commercial art galleries. This is what American artist Clyfford Still (1904–1980) did when he created his series of paintings (Fig. 1-2) of pure color titled simply with the year of their creation. Usually, someone whom the artist has never met will purchase the artwork and display it in a setting that the artist has never seen. This practice is not a new phenomenon in the history of art—an ancient potter decorating a vase for sale at a village market stall probably did not know who would buy the pot or where it would be housed—but it is not at all typical. In fact, it is exceptional. Throughout history, most artists created paintings, sculptures, and other objects for specific patrons and settings and to fulfill a specific purpose, even if today no one knows the original contexts of those artworks. A museum visitor can appreciate the visual and tactile qualities of these objects, but without knowing the circumstances of their creation, that modern viewer cannot understand why they were made or why they appear as they do. Art *appreciation* and aesthetic judgments in general do not require knowledge of the historical context of an artwork (or a building). Art *history* does.



I-2 CLYFFORD STILL, 1948-C, 1948. Oil on canvas, 6' $8\frac{7}{8}$ " × 5' $8\frac{3}{4}$ ". Hirshhorn Museum and Sculpture Garden, Smithsonian Institution, Washington, D.C. (purchased with funds of Joseph H. Hirshhorn, 1992).

Clyfford Still painted this abstract composition without knowing who would purchase it or where it would be displayed, but throughout history, most artists created works for specific patrons and settings.

Thus a central aim of art history is to determine the original context of artworks. Art historians seek to achieve a full understanding not only of why these "persisting events" of human history look the way they do but also of why the artistic events happened at all. What unique set of circumstances gave rise to the construction of a particular building or led an individual patron to commission a certain artist to fashion a singular artwork for a specific place? The study of history is therefore vital to art history. And art history is often indispensable for a thorough understanding of history. In ways that other historical documents may not, art objects and buildings can shed light on the peoples who made them and on the times of their creation. Furthermore, artists and architects can affect history by reinforcing or challenging cultural values and practices through the objects they create and the structures they build. Although the two disciplines are not the same, the analysis of art and architecture is inseparable from the study of history.

The following pages introduce some of the distinctive subjects that art historians address and the kinds of questions they ask, and explain some of the basic terminology they use when answering these questions. Readers armed with this arsenal of questions and terms will be ready to explore the multifaceted world of art through the ages—and to form their own opinions and write knowledgably about artworks and buildings in all places and at all times. This is the central aim of this book.

ART HISTORY IN THE 21ST CENTURY

Art historians study the visual and tangible objects that humans make and the structures they build. Scholars traditionally have classified these works as architecture, sculpture, the pictorial arts (painting, drawing, printmaking, and photography), and the craft arts, or arts of design. The craft arts comprise utilitarian objects, such as ceramics, metalwork, textiles, jewelry, and similar accessories of ordinary living—but the fact that these objects were used does not mean that they are not works of art. In fact, in some times and places, these so-called minor arts were the most prestigious artworks of all. Artists of every age have blurred the boundaries among these categories, but this is especially true today, when multimedia works abound.

Beginning with the earliest Greco-Roman art critics, scholars have studied objects that their makers consciously manufactured as "art" and to which the artists assigned formal titles. But today's art historians also study a multitude of objects that their creators and owners almost certainly did not consider to be "works of art"—for example, the African altar illustrated on the opening page of this introductory chapter (Fig. I-1). Likewise, few ancient Romans would have regarded a coin bearing their emperor's portrait as anything but money. Today, an art museum may exhibit that coin in a locked case in a climate-controlled room, and scholars may subject it to the same kind of art historical analysis as a portrait by an acclaimed Renaissance or modern sculptor or painter.

The range of objects that art historians study is constantly expanding and now includes, for example, computer-generated images, whereas in the past almost anything produced using a machine would not have been regarded as art. Most people still consider the performing arts—music, drama, and dance—as outside art history's realm because these arts are fleeting, impermanent media. But during the past few decades, even this distinction between "fine art" and "performance art" has become blurred. Art historians, however, generally ask the same kinds of questions about what they study, whether they employ a restrictive or expansive definition of art.

The Questions Art Historians Ask

How Old Is It? Before art historians can write a history of art, they must be sure that they know the date of each work they study. Thus an indispensable subject of art historical inquiry is *chronology*, the dating of art objects and buildings. If researchers cannot determine a monument's age, they cannot place the work in its historical context. Art historians have developed many ways to establish, or at least approximate, the date of an artwork.

Physical evidence often reliably indicates an object's age. The material used for a statue or painting—bronze, plastic, or oil-based pigment, to name only a few—may not have been invented before a certain time, indicating the earliest possible date (the terminus post quem: Latin, "point after which") that someone could have fashioned the work. Or artists may have ceased using certain materials—such as specific kinds of inks and papers for drawings—at a known time, providing the latest possible date (the terminus ante quem: Latin, "point before which") for objects made of those materials. Sometimes the material (or the manufacturing technique) of an object or a building can establish a very precise date of production or construction. The study of tree rings, for instance, usually can determine within a narrow range the date of a wood statue or a timber roof beam.



I-3 Choir of Beauvais Cathedral (looking east), Beauvais, France, rebuilt after 1284.

The style of an object or building often varies from region to region. This cathedral has towering stone vaults and large colored-glass windows typical of 13th-century French architecture.

Documentary evidence can help pinpoint the date of an object or building when a dated written document mentions the work. For example, official records may note when church officials commissioned a new altarpiece—and how much they paid to which artist.

Internal evidence can play a significant role in dating an artwork. A painter or sculptor might have depicted an identifiable person or a kind of hairstyle or garment fashionable only at a certain time. If so, the art historian can assign a more accurate date to that painting or sculpture.

Stylistic evidence is also very important. The analysis of style—an artist's distinctive manner of producing an object—is the art historian's special sphere. Unfortunately, because it is a subjective assessment, an artwork's style is by far the most unreliable chronological criterion. Still, art historians find stylistic evidence a very useful tool for establishing chronology.

What Is Its Style? Defining artistic style is one of the key elements of art historical inquiry, although the analysis of artworks solely in terms of style no longer dominates the field the way it once did. Art historians speak of several different kinds of artistic styles.

Period style refers to the characteristic artistic manner of a specific era or span of years, usually within a distinct culture, such as



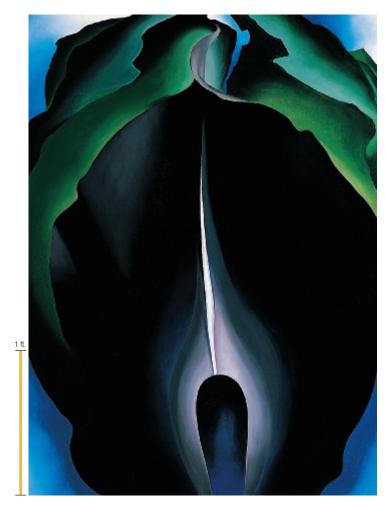
1-4 Interior of Santa Croce (looking east), Florence, Italy, begun 1294.

In contrast to Beauvais Cathedral (Fig. I-3), this contemporaneous Florentine church conforms to the quite different regional style of Italy. The building has a low timber roof and small windows.

"Archaic Greek" or "High Renaissance." But many periods do not display any stylistic unity at all. How would someone define the artistic style of the second or third decade of the new millennium in North America? Far too many crosscurrents exist in contemporary art for anyone to describe a period style of the early 21st century—even in a single city such as New York.

Regional style is the term that art historians use to describe variations in style tied to geography. Like an object's date, its provenance, or place of origin, can significantly determine its character. Very often two artworks from the same place made centuries apart are more similar than contemporaneous works from two different regions. To cite one example, usually only an expert can distinguish between an Egyptian statue carved in 2500 BCE (FIG. 3-13) and one created 2,000 years later (FIG. 3-37). But no one would mistake an Egyptian statue of 500 BCE for one of the same date made in Greece (FIG. 5-35) or Africa (FIG. 19-4).

Considerable variations in a given area's style are possible, however, even during a single historical period. In late medieval Europe, French architecture differed significantly from Italian architecture. The interiors of Beauvais Cathedral (FIG. I-3) and the church of Santa Croce (Holy Cross, FIG. I-4) in Florence typify the architectural styles of France and Italy, respectively, at the end of the 13th century. The rebuilding of the east end of Beauvais Cathedral began in 1284. Construction commenced on Santa Croce only 10 years later. Both structures employ the *pointed arch* characteristic of this era, yet the two churches differ strikingly. The French church has towering stone ceilings and large expanses of colored-glass windows, whereas the Italian building has a low timber roof and small,

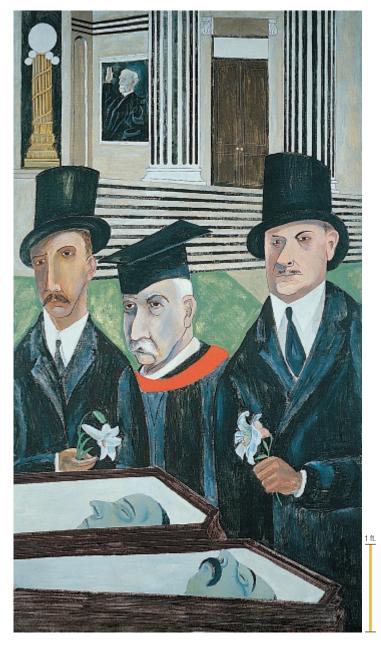


I-5 GEORGIA O'KEEFFE, *Jack-in-the-Pulpit No. 4*, 1930. Oil on canvas, $3' 4'' \times 2' 6''$. National Gallery of Art, Washington, D.C. (Alfred Stieglitz Collection, bequest of Georgia O'Keeffe).

O'Keeffe's paintings feature close-up views of petals and leaves in which the organic forms become powerful abstract compositions. This approach to painting typifies the artist's distinctive personal style.

widely separated clear windows. Because the two contemporaneous churches served similar purposes, regional style mainly explains their differing appearance.

Personal style, the distinctive manner of individual artists or architects, often decisively explains stylistic discrepancies among paintings, sculptures, and buildings of the same time and place. For example, in 1930, American painter Georgia O'Keeffe (1887-1986) produced a series of paintings of flowering plants. One of them— Jack-in-the-Pulpit No. 4 (FIG. 1-5)—is a sharply focused close-up view of petals and leaves. O'Keeffe captured the growing plant's slow, controlled motion while converting the plant into a powerful abstract composition of lines, forms, and colors (see the discussion of art historical vocabulary in the next section). Only a year later, another American artist, Ben Shahn (1898-1969), painted The Passion of Sacco and Vanzetti (FIG. 1-6), a stinging commentary on social injustice inspired by the trial and execution of two Italian anarchists, Nicola Sacco and Bartolomeo Vanzetti. Many people believed that Sacco and Vanzetti had been unjustly convicted of killing two men in a robbery in 1920. Shahn's painting compresses time in a symbolic representation of the trial and its aftermath. The two executed men lie in their coffins. Presiding over them are the three members of the commission (headed by a college president

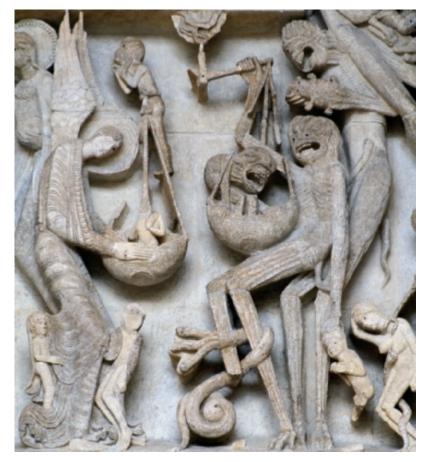


l-6 Ben Shahn, *The Passion of Sacco and Vanzetti*, 1931–1932. Tempera on canvas, $7'\frac{1''}{2}\times 4'$. Whitney Museum of American Art, New York (gift of Edith and Milton Lowenthal in memory of Juliana Force).

O'Keeffe's contemporary, Shahn developed a style markedly different from hers. His paintings are often social commentaries on recent events and incorporate readily identifiable people.

wearing academic cap and gown) who declared that the original trial was fair and cleared the way for the executions. Behind, on the wall of a stately government building, hangs the framed portrait of the judge who pronounced the initial sentence. Personal style, not period or regional style, sets Shahn's canvas apart from O'Keeffe's. The contrast is extreme here because of the very different subjects that the artists chose. But even when two artists depict the same subject, the results can vary widely. The way that O'Keeffe painted flowers and the way that Shahn painted faces are distinctive and unlike the styles of their contemporaries. (See the "Who Made It?" discussion on page 6.)

The different kinds of artistic styles are not mutually exclusive. For example, an artist's personal style may change dramatically





I-7 GISLEBERTUS, weighing of souls, detail of *Last Judgment* (FIG. 12-1), west tympanum of Saint-Lazare, Autun, France, ca. 1120–1135.

In this high relief portraying the weighing of souls on Judgment Day, Gislebertus used disproportion and distortion to dehumanize the devilish figure yanking on the scales of justice.

during a long career. Art historians then must distinguish among the different period styles of a particular artist, such as the "Rose Period" (FIG. 29-10A) and the "Cubist Period" (FIG. 29-14) of the prolific 20th-century artist Pablo Picasso.

What Is Its Subject? Another major concern of art historians is, of course, subject matter, encompassing the story or narrative; the scene presented; the action's time and place; the persons involved; and the environment and its details. Some artworks, such as modern abstract paintings (FIG. I-2), have neither traditional subjects nor even settings. The "subject" is the artwork itself—its colors, textures, composition, and size. But when artists represent people, places, or actions, viewers must identify these features to achieve a complete understanding of the work. Art historians traditionally separate pictorial subjects into various categories, such as religious, historical, mythological, genre (daily life), portraiture, landscape (a depiction of a place), still life (an arrangement of inanimate objects), and their numerous subdivisions and combinations.

Iconography—literally, the "writing of images"—refers both to the content, or subject, of an artwork, and to the study of content in art. By extension, it also includes the study of *symbols*, images that stand for other images or encapsulate ideas. In Christian art, two intersecting lines of unequal length or a simple geometric cross can serve as an emblem of the religion as a whole, symbolizing the cross of Jesus Christ's crucifixion. A symbol also can be a familiar object that an artist has imbued with greater meaning. A balance or scale, for example, may symbolize justice or the weighing of souls on Judgment Day (FIG. 1-7).

Artists may depict figures with unique *attributes* identifying them. In Christian art, for example, each of the authors of the biblical Gospel books, the four evangelists (FIG. 1-8), has a distinctive attribute. People can recognize Saint Matthew by the winged man associated with him, John by his eagle, Mark by his lion, and Luke by his ox.

Throughout the history of art, artists have used *personifications*—abstract ideas codified in human form. Because of the fame of the colossal statue set up in New York City's harbor in 1886, people everywhere visualize Liberty as a robed woman wearing a rayed crown and holding a torch. Four different personifications appear

I-8 The four evangelists, folio 14 verso of the *Aachen Gospels*, ca. 810. Ink and tempera on vellum, $1' \times 9\frac{1}{2}''$. Domschatzkammer, Aachen.

Artists depict figures with attributes in order to identify them for viewers. The authors of the four Gospels have distinctive attributes—winged man (Matthew), eagle (John), lion (Mark), and ox (Luke).



I-9 Albrecht Dürer, *The Four Horsemen of the Apocalypse*, ca. 1498. Woodcut, 1' $3\frac{1}{4}$ " × 11". Metropolitan Museum of Art, New York (gift of Junius S. Morgan, 1919).

Personifications are abstract ideas codified in human form. Here, Albrecht Dürer represented Death, Famine, War, and Pestilence as four men on charging horses, each one carrying an identifying attribute.

in *The Four Horsemen of the Apocalypse* (FIG. I-9) by German artist Albrecht Dürer (1471–1528). The late-15th-century print is a terrifying depiction of the fateful day at the end of time when, according to the Bible's last book, Death, Famine, War, and Pestilence will annihilate the human race. Dürer personified Death as an emaciated old man with a pitchfork. Famine swings the scales for weighing human souls (compare FIG. I-7). War wields a sword, and Pestilence draws a bow.

Even without considering style and without knowing a work's maker, informed viewers can determine much about the work's period and provenance by iconographical and subject analysis alone. In *The Passion of Sacco and Vanzetti* (Fig. I-6), for example, the two coffins, the trio headed by an academic, and the robed judge in the background are all pictorial clues revealing the painting's subject. The work's date must be after the trial and execution (the terminus post quem), probably while the event was still newsworthy. And because the two men's deaths caused the greatest outrage in the United States, the painter–social critic was probably an American.

Who Made It? If Ben Shahn had not signed his painting of Sacco and Vanzetti, an art historian could still assign, or *attribute* (make an *attribution* of), the work to him based on knowledge of the artist's personal style. Although signing (and dating) works is quite

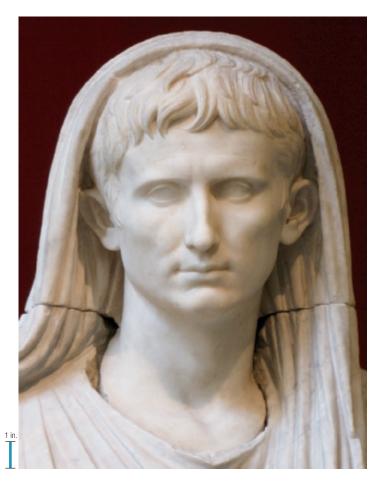
common (but by no means universal) today, in the history of art, countless works exist whose artists remain unknown. Because personal style can play a major role in determining the character of an artwork, art historians often try to attribute anonymous works to known artists. Sometimes they assemble a group of works all thought to be by the same person, even though none of the objects in the group is the known work of an artist with a recorded name. Art historians thus reconstruct the careers of artists such as the "Achilles Painter" (FIG. 5-58), the anonymous ancient Greek artist whose masterwork is a depiction of the hero Achilles. Scholars base their attributions on internal evidence, such as the distinctive way that an artist draws or carves drapery folds, earlobes, or flowers. It requires a keen, highly trained eye and long experience to become a connoisseur, an expert in assigning artworks to "the hand" of one artist rather than another. Attribution is subjective, of course, and ever open to doubt. For example, for a half-century through 2014, scholars involved with the Rembrandt Research Project debated attributions to the famous 17th-century Dutch painter Rembrandt van Rijn (FIG. 25-15)—and the debate continues today.

Sometimes a group of artists works in the same style at the same time and place. Art historians designate such a group as a *school*. "School" in this sense does not mean an educational institution or art academy. The term connotes only shared chronology, style, and geography. Art historians speak, for example, of the Dutch school of the 17th century and, within it, of subschools such as those of the cities of Haarlem, Utrecht, and Leyden.

Who Paid for It? The interest that many art historians show in attribution reflects their conviction that the identity of an artwork's maker is the major reason why the object looks the way it does. For them, personal style is of paramount importance. But in many times and places, artists had little to say about what form their work would take. They toiled in obscurity, doing the bidding of their *patrons*, those who paid them to make individual works or employed them on a continuing basis. The role of patrons in dictating the content and shaping the form of artworks is also an important subject of art historical inquiry.

In the art of portraiture, to name only one category of painting and sculpture, the patron has often played a dominant role in deciding how the artist represented the subject, whether that person was the patron or another individual, such as a spouse, son, or mother. Many Egyptian pharaohs (for example, Fig. 3-13) and some Roman emperors insisted that artists depict them with unlined faces and perfect youthful bodies no matter how old they were when portrayed. In these cases, the state employed the sculptors and painters, and the artists had no choice but to portray their patrons in the officially approved manner. This is why Augustus, who lived to age 76, looks so young in his portraits (Fig. 1-10; compare Fig. 7-27). Although Roman emperor for more than 40 years, Augustus demanded that artists always represent him as a young, godlike head of state.

All modes of artistic production reveal the impact of patronage. Learned monks provided the themes for the sculptural decoration of medieval church portals (FIG. I-7). Renaissance princes and popes dictated the subject, size, and materials of artworks destined for display in buildings also constructed according to their specifications. An art historian could make a very long list of commissioned works, and it would indicate that patrons have had diverse tastes and needs throughout history and consequently have demanded different kinds of art. Whenever a patron contracts with an artist or architect to paint, sculpt, or build in a prescribed manner, personal style often becomes a very minor factor in the ultimate appearance



I-10 Head of the statue of Augustus as pontifex maximus, from Via Labicana, Rome, Italy, late first century BCE. Marble, statue 6' 10" high; detail 1' $4\frac{1}{2}$ ". Palazzo Massimo alle Terme, Museo Nazionale Romano, Rome.

Patrons frequently dictate the form that their portraits will take. Emperor Augustus demanded that he always be portrayed as a young, godlike head of state even though he lived to age 76.

of the painting, statue, or building. In these cases, the identity of the patron reveals more to art historians than does the identity of the artist or school. The portrait of Augustus illustrated here (FIG. I-10)—showing the emperor wearing a hooded toga in his official capacity as pontifex maximus (chief priest of the Roman state religion)—was the work of a virtuoso sculptor, a master wielder of hammer and chisel. But scores of similar portraits of this Roman emperor also exist today. They differ in quality but not in kind from this one. The patron, not the artist, determined the character of these artworks. Augustus's public image never varied. Art through the Ages highlights the involvement of patrons in the design and production of sculptures, paintings, and buildings throughout the text and in a series of boxed essays called The Patron's Voice.

The Words Art Historians Use

As in all fields of study, art history has its own specialized vocabulary consisting of hundreds of words, but certain basic terms are indispensable for describing artworks and buildings of any time and place. They make up the essential vocabulary of formal analysis, the visual analysis of artistic form, and are used whenever one talks or writes about art and architecture. Definitions and discussions of the most important art historical terms follow.

Form and Composition. Form refers to an object's shape and structure, either in two dimensions (for example, a portrait painted on canvas) or in three dimensions (such as a statue carved from a marble block). Two forms may take the same shape but differ in their color, texture, and other qualities. Composition refers to how an artist composes (organizes) forms in an artwork, either by placing shapes on a flat surface or by arranging forms in space.

Material and Technique. To create art forms, artists shape materials (pigment, clay, marble, gold, and many more) with tools (pens, brushes, chisels, and so forth). Each of the materials and tools available has its own potentialities and limitations. Part of all artists' creative activity is to select the medium and instrument most suitable to the purpose—or to develop new media and tools, such as bronze and concrete in antiquity and cameras and computers in modern times. The processes that artists employ, such as applying paint to canvas with a brush, and the distinctive, personal ways that they handle materials constitute their technique. Form, material, and technique interrelate and are central to analyzing any work of art.

Line. Among the most important elements defining an artwork's shape or form is *line*. A line can be understood as the path of a point moving in space, an invisible line of sight. More commonly, however, artists and architects make a line visible by drawing (or chiseling) it on a plane, a flat surface. A line may be very thin, wirelike, and delicate. It may be thick and heavy. Or it may alternate quickly from broad to narrow, the strokes jagged or the outline broken. When a continuous line defines an object's outer shape, art historians call it a contour line. All of these line qualities are present in Dürer's Four Horsemen of the Apocalypse (FIG. I-9). Contour lines define the basic shapes of clouds, human and animal limbs, and weapons. Within the forms, series of short broken lines create shadows and textures. An overall pattern of long parallel strokes suggests the dark sky on the frightening day when the world is about to end.

Color. Light reveals all colors. Light in the world of the painter and other artists differs from natural light. Natural light, or sunlight, is whole or additive light. As the sum of all the wavelengths composing the visible spectrum, it may be disassembled or fragmented into the individual colors of the spectral band. The painter's light in art—the light reflected from pigments and objects—is subtractive light. Paint pigments produce their individual colors by reflecting a segment of the spectrum while absorbing all the rest. Green pigment, for example, subtracts or absorbs all the light in the spectrum except that seen as green.

Hue is the property giving a color its name. Although the spectrum colors merge into each other, artists usually conceive of their hues as distinct from one another. Color has two basic variables the apparent amount of light reflected and the apparent purity. A change in one must produce a change in the other. Some terms for these variables are value or tonality (the degree of lightness or darkness) and intensity or saturation (the purity of a color, its brightness or dullness).

Artists call the three basic colors—red, yellow, and blue—the primary colors. The secondary colors result from mixing pairs of primaries: orange (red and yellow), purple (red and blue), and green (yellow and blue). Complementary colors represent the pairing of a primary color and the secondary color created from mixing the two other primary colors-red and green, yellow and purple, and blue and orange. They "complement," or complete, each other, one absorbing the colors that the other reflects.



I-11 JOSEF Albers, Homage to the Square: "Ascending," 1953. Oil on composition board, 3′ $7\frac{1}{2}$ " × 3′ $7\frac{1}{2}$ ". Whitney Museum of American Art, New York.

Albers created hundreds of paintings using the same composition but employing variations in hue, saturation, and value in order to reveal the relativity and instability of color perception.

Artists can manipulate the appearance of colors, however. One artist who made a systematic investigation of the formal aspects of art, especially color, was Josef Albers (1888-1976), a Germanborn artist who emigrated to the United States in 1933. In connection with his studies, Albers created the series Homage to the Square—hundreds of paintings, most of which are color variations on the same composition of concentric squares, as in the illustrated example (FIG. I-11). The series reflected Albers's belief that art originates in "the discrepancy between physical fact and psychic effect." Because the composition in most of these paintings remains constant, the works succeed in revealing the relativity and instability of color perception. Albers varied the hue, saturation, and value of each square in the paintings in this series. As a result, the sizes of the squares from painting to painting appear to vary (although they remain the same), and the sensations emanating from the paintings range from clashing dissonance to delicate serenity. Albers explained his motivation for focusing on color juxtapositions:

They [the colors] are juxtaposed for various and changing visual effects.... Such action, reaction, interaction... is sought in order to make obvious how colors influence and change each other; that the same color, for instance—with different grounds or neighbors—looks different.... Such color deceptions prove that we see colors almost never unrelated to each other.²

Texture. The term *texture* refers to the quality of a surface, such as rough or shiny. Art historians distinguish between true texture—that is, the tactile quality of the surface—and represented texture,

as when painters depict an object as having a certain texture even though the pigment is the true texture. Sometimes artists combine different materials of different textures on a single surface, juxtaposing paint with pieces of wood, newspaper, fabric, and so forth. Art historians refer to this mixed-media technique as *collage*. Texture is, of course, a key determinant of any sculpture's character. People's first impulse is usually to handle a work of sculpture—even though museum signs often warn "Do not touch!" Sculptors plan for this natural human response, using surfaces varying in texture from rugged coarseness to polished smoothness. Textures are often intrinsic to a material, influencing the type of stone, wood, plastic, clay, or metal that a sculptor selects.

Space, **Mass**, **and Volume**. *Space* is the bounded or boundless "container" of objects. For art historians, space can be the real three-dimensional space occupied by a statue or a vase or contained within a room or courtyard. Or space can be *illusionistic*, as when painters depict an image (or illusion) of the three-dimensional spatial world on a two-dimensional surface.

Mass and volume describe three-dimensional objects and space. In both architecture and sculpture, mass is the bulk, density, and weight of matter in space. Yet the mass need not be solid. It can be the exterior form of enclosed space. Mass can apply to a solid Egyptian pyramid or stone statue; to a church, synagogue, or mosque (architectural shells enclosing sometimes vast spaces); and to a hollow metal statue or baked clay pot. Volume is the space that mass organizes, divides, or encloses. It may be a building's interior spaces, the intervals between a structure's masses, or the amount of space occupied by a three-dimensional object such as a statue, pot, or chair. Volume and mass describe both the exterior and interior forms of a work of art—the forms of the matter of which it is composed and the spaces immediately around the work and interacting with it.

Perspective and Foreshortening. Perspective is one of the most important pictorial devices for organizing forms in space. Throughout history, artists have used various types of perspective to create an illusion of depth or space on a two-dimensional surface. The French painter CLAUDE LORRAIN (1600-1682) employed several perspective devices in Embarkation of the Queen of Sheba (FIG. I-12), a painting of a biblical episode set in a 17th-century European harbor with an ancient Roman ruin in the left foreground—an irrationally anachronistic combination that the art historian can explain only in the context of the cultural values of the artist's time and place. In Claude's painting, the figures and boats on the shoreline are much larger than those in the distance, because decreasing the size of an object makes it appear farther away. The top and bottom of the port building at the painting's right side are not parallel horizontal lines, as they are in a real building. Instead, the lines converge beyond the structure, leading the viewer's eye toward the hazy, indistinct sun on the horizon. These three perspective devices—the reduction of figure size, the convergence of diagonal lines, and the blurring of distant forms—have been familiar features of Western art since they were first employed by the ancient Greeks. It is important to state, however, that all kinds of perspective are only pictorial conventions, even when one or more types of perspective may be so common in a given culture that people accept them as "natural" or as "true" means of representing the natural world.

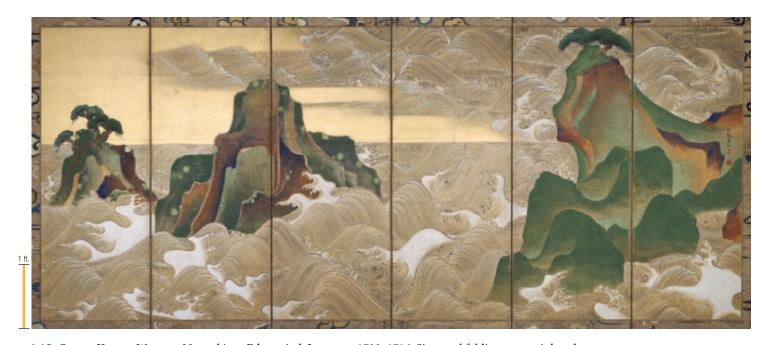
These perspective conventions are by no means universal. In Waves at Matsushima (FIG. I-13), a Japanese seascape painting on



I-12 CLAUDE LORRAIN, Embarkation of the Queen of Sheba, 1648. Oil on canvas, $4' 10'' \times 6' 4''$. National Gallery, London.

To create the illusion of a deep landscape, Claude Lorrain employed perspective, reducing the size of and blurring the most distant forms. All diagonal lines converge on a single point.

a six-part folding screen, Ogata Korin (1658-1716) ignored these Western "tricks" for representing deep space on a flat surface. A Western viewer might interpret the left half of Korin's composition as depicting the distant horizon, as in the French painting, but the sky is an unnatural gold, and the clouds filling that unnaturally colored sky are almost indistinguishable from the waves below. The rocky outcroppings decrease in size with distance, but all are in sharp focus, and there are no shadows. The Japanese artist was less concerned with locating the boulders and waves and clouds in space than with composing shapes on a surface, playing the swelling curves of waves and clouds against the jagged contours of the rocks. Neither the French nor the Japanese painting can be said to project "correctly" what viewers "in fact" see. One painting is not a "better" picture of the world than the other. The European and Asian artists simply approached the problem of picture making differently.



I-13 OGATA KORIN, Waves at Matsushima, Edo period, Japan, ca. 1700-1716. Six-panel folding screen, ink, colors, and gold leaf on paper, $4'11\frac{1}{8}'' \times 12'\frac{7}{8}''$. Museum of Fine Arts, Boston (Fenollosa-Weld Collection).

Asian artists rarely employed Western perspective (Fig. I-12). Korin was more concerned with creating an intriguing composition of shapes on a surface than with locating boulders, waves, and clouds in space.