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SIXTH EDITION

ART HISTORY

STOKSTAD

This sixth edition of **ART HISTORY** is dedicated to the memory of Marilyn Stokstad (1929–2016) who conceived and created the first edition, published in 1995.

COTHREN



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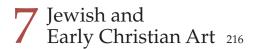
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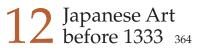
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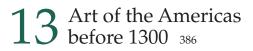
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Letter from the Author

Dear Colleagues,

When Marilyn Stokstad wrote the first edition of Art History in the early 1990s, it represented an historical advance in the conception and teaching of the history of art. The discipline had recently gone through a period of crisis and creativity that challenged the assumptions behind the survey course and questioned the canon of works that had long been its foundation. We all rethought what we were doing, and this soul searching made us better teachers-more honest and relevant, more passionate and inclusive. With characteristic energy and intelligence, Marilyn stepped up to the task of conceiving and creating a new survey book for a new generation of students ready to reap the benefits of this refined notion of art history. From the beginning, she made it global in scope, inclusive in coverage, warm and welcoming in tone. Marilyn highlighted the role of women in the history of art both by increasing the number of women artists and by expanding the range of art to focus on media and genres that had traditionally engaged female artists and patrons.

It was an honor to become part of her project almost a decade ago, and it is my sad responsibility to acknowledge her passing, just as this sixth edition went to press. To me, she was more than a brilliant art historian; she was a loyal and compassionate colleague, a great friend. The warmth and trust with which she welcomed me into the writing of *Art History* was one of the great experiences of my professional life. I will truly miss her, and I will work faithfully to continue her legacy as this book moves into the future. I promised her I would.

After all, reconsidering and refining what we do never ceases. Like art, learning and teaching change as we and our culture change, responsive to new objectives and new understandings. Opportunities for growth sometimes emerge in unexpected situations. One day, while I was inching through sluggish suburban traffic with my daughter Emma-a gifted teacher-I confessed my disappointment about my survey students' struggle with mastering basic information. "Why," I asked rhetorically, "is it so difficult for them to learn these facts?" Emma's unexpected answer shifted the question and reframed the discussion. "Dad," she said, "you are focusing on the wrong aspect of your teaching. What are you trying to accomplish by asking your students to learn those facts? Clarify your objectives first, then question whether your assessment is actually the best way to encourage its accomplishment."

Emma's question inspired me to pause and reflect on what it is we seek to accomplish in art history survey courses. One of my primary goals has been encouraging



my students to slow down and spend extended time studying the illustrations of the works of art, what I call "slow looking." I thought memorizing the IDs would accomplish this. But I have grown to realize that there are more effective ways to make this happen, especially in the new online REVEL format

that is transforming this textbook into an interactive learning experience. REVEL is more like a classroom than a book. It is based on the premise that students will focus more effectively on a series of changing formats tailored to the content being presented. When I piloted REVEL in my survey classroom last Fall, I discovered that my students were "slow looking" while taking advantage of interactive REVEL features such as the pan/zoom figures (which allow them to zoom in on details) and the architectural panoramas (which allow them to explore the interacting spaces of architectural interiors from multiple viewpoints). I doubted my students would take advantage of these opportunities while doing "assigned reading," but I was wrong. The first week of class a student's hand shot up to ask if I could explain a detail she had seen when using the pan/zoom. Within the same week, another student shared his surprise at the small size of a work of art discovered when clicking on the pan/zoom's scale feature. In three decades of teaching art history survey, never had a student brought to class an observation or question about scale, even though measurements were included in captions. I love books, I really do, but in my experience REVEL is a more effective teaching resource.

I urge you to continue thinking with me about how the study of art history can be meaningful and nourishing for students. Our discipline originated in dialogue and is founded on the desire to talk with each other about why works of art matter and why they affect us so deeply. I would love to hear from you—mcothre1@swarthmore.edu.

Warm regards,

Michael

Sychael

What's New

WHY USE THIS NEW EDITION?

Art history—what a fascinating and fluid discipline,which evolves as the latest research becomes available for debate and consideration. The sixth edition of *Art History* has been revised to reflect such new discoveries, recent research, and fresh interpretive perspectives, and also to address the changing needs of the audience—both students and educators. With these goals in mind and by incorporating feedback from our many users and reviewers, we have sought to make this edition an improvement in sensitivity, readability, and accessibility without losing anything in comprehensiveness, in scholarly precision, or in its ability to engage readers.

To facilitate student learning and understanding of art history, the sixth edition is centered on six key Learning Objectives. These overarching goals helped steer and shape this revision with their emphasis on the fundamental reasons we teach art history to undergraduates, and they have been repeated at the beginning of each chapter, tailored to the subject matter in that section of the book so that the student will be continually reminded of the goals and objectives of the study of art history.

LEARNING OBJECTIVES FOR ART HISTORY

- 1. Identify the visual hallmarks of regional and period styles for formal, technical, and expressive qualities.
- 2. Interpret the meaning of works of art from diverse cultures, periods, and locations based on their themes, subjects, and symbols.
- 3. Relate artists and works of art to their cultural, economic, and political contexts.
- 4. Apply the vocabulary and concepts used to discuss works of art, artists, and art history.
- 5. Interpret art using appropriate art historical methods, such as observation and inductive reasoning.
- 6. Select visual and textual evidence to support an argument or interpretation.

DESIGNING ART HISTORY IN REVEL

One of the principal objectives of the current edition has been to advance the transformation of the traditional narrative into an interactive learning experience in REVEL. REVEL is conceived to promote learning in a digital platform that is engaging and meaningful to today's student. Along with traditional narrative text passages, features such as pan/zoom images, videos, architectural panoramas, and audio text are integrated to better explain and present concepts key to understanding the history of art.

- **Pan/zooms** appear with a simple click for most of the figures, allowing students to zoom in and examine details with stunning clarity and resolution, and then return to the overall view of the work of art, so they can relate these details to the whole.
- The pan/zooms' scale feature opens a window where works of art appear next to a scaled human figure (or for small works a scaled human hand), giving students an instant sense of the size of what they are studying. Since all works of art are scaled in a fundamental sense to the size of human creators and viewers (rather than to an arbitrary measuring system),

this intuitive communication of size is more instructive for students than the specific measurements found in the captions.

• There are three kinds of **writing prompts** in each chapter. All are keyed to specific works of art and appear in conjunction with figures that illustrate the works. **Journaling** prompts focus on building skills of visual analysis; **Shared Writing** responses relate the material in the chapter to today's world; and **Writing Space** prompts encourage students to engage in cross-cultural thinking, often across chapters.

NEW TO THIS EDITION OF REVEL

- **3D** animations of architectural and art historical techniques depict and explain processes and methods that are difficult for students to grasp simply through narrative text.
- New panoramas from global sites sourced from 360Cities have been integrated, bringing students into the setting of major buildings and monuments such as the Taj Mahal and Great Zimbabwe.
- Each and every Closer Look has been transformed into a REVEL video presentation, where students are guided through a detailed examination of the work, coordinated with the interpretive material about style, subject matter, and cultural context as it unfolds.

SOME ADDITIONAL CONTENT HIGHLIGHTS OF THE NEW EDITION

- Global coverage has been deepened with the addition of new works of art and revised discussions that incorporate new scholarship. This is especially true in the cases of South and Southeast Asia, as well as Africa—the chapters addressing these areas have been significantly reworked and expanded.
- Chapter 33 on contemporary art has been rethought, reorganized, and reworked for greater clarity and timeliness. Numerous new works have been incorporated.
- Throughout, **images have been updated** whenever new and improved images were available or works of art have been cleaned or restored.
- The **language used to characterize works of art**—especially those that attempt to capture the lifelike appearance of the natural world—has been **refined and clarified** to bring greater precision and nuance.
- In response to readers' requests, **discussion of many major monuments** has been revised and expanded.
- New works have been added to the discussion in many chapters to enhance and enrich what is said in the text. These include the Standard of Ur, the Great Mosque of Damascus, a painting from the tomb of Nebamun, the Ardabil Carpet, the burial mask of Pakal the Great, Mesa Verde, Kim Hongdo's scene of roof tiling, Imogen Cunningham's *Two Callas*, and the works of many additional contemporary artists. In addition, the following artists are now discussed through new, and more representative, works: Zhao Mengfu, Rosalba Carriera, Antonio Canova, Georgia O'Keeffe, Vladimir Tatlin, Paula Modersohn-Becker, Suzuki Harunobu, and Mary Cassatt.

Acknowledgments and Gratitude

Art History, originally written by Marilyn Stokstad and first published by Harry N. Abrams, Inc. and Prentice Hall, Inc. in 1995, has relied, each time it has been revised, on the contributions of colleagues . Their work is reflected here, and they deserve enduring gratitude since this sixth edition represents the cumulative efforts of the distinguished group of scholars and educators who contributed to the previous five editions. The work of Stephen Addiss, Chutsing Li, Marylin M. Rhie, and Christopher D. Roy for the original book has been updated by David Binkley and Patricia Darish (Africa); Claudia Brown and Robert Mowry (China and Korea); Patricia Graham (Japan); Rick Asher (South and Southeast Asia); D. Fairchild Ruggles (Islamic); Claudia Brittenham (Americas); Sara Orel and Carol Ivory (Pacific cultures); and Bradford R. Collins, David Cateforis, Patrick Frank, and Joy Sperling (Modern). For this sixth edition, Robert DeCaroli reworked the chapters on South and Southeast Asia; Susan Kart extensively rethought and revised the chapters on African art; and Virginia Spivey did the same for the final chapter, "The International Scene since the 1950s".

Words can hardly express the depth of my own gratitude to Marilyn Stokstad, who welcomed me in 2008 with enthusiasm and trust into the collaborative adventure of revising this historic textbook, conceived for students in the 21st century. We worked together on *Art History* since the fourth edition, and with her passing in 2016 as this sixth edition was going to press, I have lost a treasured colleague.

Marilyn would want me to thank her University of Kansas colleagues Sally Cornelison, Susan Craig, Susan Earle, Charles Eldredge, Kris Ercums, Sherry Fowler, Stephen Goddard, Saralyn Reece Hardy, Marsha Haufler, Marni Kessler, Amy McNair, John Pulz, Linda Stone Ferrier, and John Younger for their help and advice; and also her friends Katherine Giele and Katherine Stannard, William Crowe, David Bergeron, and Geraldo de Sousa for their sympathy and encouragement. Very special thanks go to Marilyn's sister, Karen Leider, and her niece, Anna Leider, without whose enduring support, this book would not have seen the light of day.

At Pearson, I have collaborated closely with two gifted and dedicated editors, Sarah Touborg and Helen Ronan, whose almost daily support in so many ways was at the center of Marilyn's and my work for years. I cannot imagine working on this project without them. Also working with me at Pearson were Barbara Cappuccio, Joe Scordato, Melissa Feimer, Cory Skidds, Victoria Engros, and Claire Ptaschinski. At Laurence King Publishing, Sophie Wise, Kara Hattersley-Smith, Julia Ruxton, Katharina Gruber, and Simon Walsh oversaw the production of this new edition. Much appreciation also goes to Wendy Albert, Marketing Manager extraordinaire, as well as the entire Social Sciences and Arts team at Pearson.My work has been greatly facilitated by the research assistance and creative ideas of Fletcher Coleman, Andrew Finegold, Moses Hanson-Harding, and Zoe Wray, who helped with previous editions. I also have been supported by a host of colleagues at Swarthmore College. Generations of students challenged me to hone my pedagogical skills and steady my focus on what is at stake in telling the history of art. My colleagues in the Art Department-especially Stacy

Bomento, Syd Carpenter, June Cianfrana, Randall Exon, Logan Grider, Laura Holzman, Constance Hungerford, Brian Meunier, Thomas Morton, Derek Burdette, Patricia Reilly, and Tomoko Sakomura—have answered questions, shared insights on works in their areas of expertise, and offered unending encouragement and support. I am so lucky to work with them.

Many art historians have provided assistance, often at a moment's notice, and I am especially grateful to Betina Bergman, Claudia Brown, Elizabeth Brown, Brigitte Buettner, David Cateforis, Madeline Caviness, Sarah Costello, Cynthia Kristan-Graham, Joyce de Vries, Cheri Falkenstien-Doyle, Sharon Gerstel, Kevin Glowaki, Ed Gyllenhaal, Julie Hochstrasser, Vida J. Hull, Penny Jolly, Padma Kaimal, Barbara Kellum, Alison Kettering, Benton Kidd, Ann Kuttner, Anne Leader, Steven LeBlanc, Cary Liu, Elizabeth Marlowe, Samuel Morse, Thomas Morton, Kathleen Nolan, David Shapiro, Mary Shepard, Larry Silver, David Simon, Donna Sadler, Jeffrey Smith, Mark Tucker, and Tarynn Witten.

I am fortunate to have the support of many friends especially John Brendler, David Eldridge, Fiona Harrison, Stephen Lehmann, Mary Marissen, Denis Ott, Bruce and Carolyn Stephens, and Rick and Karen Taylor.

My preparation for this work runs deep. My parents, Mildred and Wat Cothren, showered me with unconditional love and made significant sacrifices to support my education, from pre-school through graduate school. Sara Shymanski, elementary school librarian at St. Martin's Episcopal School in Metairie, Louisiana, gave me courage through her example and loving encouragement to pursue unexpected passions for history, art, and the search to make them meaningful in both past and present. Françoise Celly, my painting professor during a semester abroad in Aix-en-Provence, sent me to study the Romanesque sculpture of Autun, initiating my journey toward a career in art history. At Vanderbilt University, Ljubica Popovich fostered this new interest by unlocking the mysteries of Byzantine art. My extraordinary daughters Emma and Nora remain a constant inspiration. I am so grateful for their delight in my passion for art's history, and for their dedication to keeping me from taking myself too seriously. But deepest gratitude is reserved for Susan Lowry, my wife and soul-mate, who brings joy to my life on a daily basis. She is not only patient and supportive during the long distractions of my work on this book; she provides help in countless ways. The greatest accomplishment of my life in art history occurred on the day I met her in graduate school at Columbia University in 1973.

It seems fitting in this sixth edition of *Art History*, dedicated to the memory of the scholar who created it, to conclude with the statement that ended Marilyn's "Preface" for the first edition in 1995, since it captures in her inimitable style my own thoughts as well. "As each of us develops a genuine appreciation of the arts, we come to see them as the ultimate expression of human faith and integrity as well as creativity. I have tried here to capture that creativity, courage, and vision in such a way as to engage and enrich even those encountering art history for the very first time. If I have done that, I will feel richly rewarded."

Michael W. Cothren Sedona, AZ, and Philadelphia, PA IN GRATITUDE: As its predecessors did, this sixth edition of Art History benefited from the reflections and assessments of a distinguished team of scholars and educators. The authors and Pearson are grateful to the following academic reviewers for their numerous insights and suggestions for improvement: Victor Coonin, Rhodes College; Sarah Blick, Kenyon College; Elizabeth Adan, California Polytechnic State University, San Luis Obispo; Sara Orel, Truman State University; Carolyn E. Tate, Texas Tech University; April Morris, University of Alabama; Catherine Pagani, University of Alabama; Jennie Klein, Ohio University; Rebecca Stone, Emory University; Tanja Jones, University of Alabama; Keri Watson, University of Central Florida; Stephany Rimland, Harper College; Elizabeth Sutton, University of Northern Iowa; Elizabeth Carlson, Lawrence University; Laura Crary, Presbyterian College; Camille Serchuk, Southern Connecticut State University; Lydia Host, Bishop State Community College; K.C. Williams, Northwest Florida State College; Elissa Graff, Lincoln Memorial University; Ute Wachsmann-Linnan, Columbia College; Amy Johnson, Otterbein University; Lisa Alembik, Georgia Perimeter College; Virginia Dacosta, West Chester University; Megan Levacy, Georgia Perimeter College; Victor Martinez, Monmouth College; Julia Sienkewicz, Duquesne University; Jamie Ratliff, University of Minnesota Duluth; Maureen McGuire, Full Sail University; Heather Vinson, University of West Georgia.

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Use Notes

The various features of this book reinforce each other, helping you to become comfortable with terminology and concepts that are specific to art history.

Starter Kit and Introduction The Starter Kit is a very concise primer of basic concepts and tools. The Introduction explores the way they are used to come to an understanding of the history of art.

Captions There are two kinds of captions in this book: short and long. Short captions include information specific to the work of art or architecture illustrated:

artist (when known)

title or descriptive name of work

date

original location (if moved to a museum or other site)

material or materials a work is made of

size (height before width) in feet and inches, with meters and centimeters in parentheses

present location

The order of these elements varies, depending on the type of work illustrated. Dimensions are not given for architecture, for most wall paintings, or for most architectural sculpture. Some captions have one or more lines of small print below the identification section of the caption that gives museum or collection information. This is rarely required reading; its inclusion is often a requirement for gaining permission to reproduce the work.

Some longer captions also include information that complements the discussion of a work in the main text.

Definitions of Terms You will encounter the basic terms of art history in three places:

In the text, where words appearing in boldface type are defined, or glossed, at their first use.

In features on technique and other subjects, where labeled drawings and diagrams visually reinforce the use of terms.

The glossary contains all the words in boldface type in the text and features.

Maps At the beginning of most chapters you will find a map with all the places mentioned in the chapter.

Other In-Chapter Features Throughout the chapters is special material set off from the main text that complements, explains, or extends the chapter narrative.

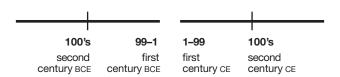
"Art and its Contexts" features tell you more about selected works or issues from the chapter. "Closer Look" features help you learn more about specific aspects of important works. "Elements of Architecture" features clarify specific architectural features, often explaining engineering principles or building technology. "Technique" features outline how certain types of art are created.

Bibliography The bibliography lists books in English, organized by general works and by chapter, that are basic to the study of art history today, as well as books cited in the text.

Learning Objectives At the beginning of each chapter is a list of its key learning objectives: what the authors hope you will learn by studying the chapter.

Think About It These critical thinking questions appear at the end of each chapter and help you assess your mastery of the learning objectives by thinking through and applying what you have learned.

Dates, Abbreviations, and Other Conventions This book uses the designations BCE and CE, abbreviations for "Before the Common Era" and "Common Era," instead of BC ("Before Christ") and AD ("Anno Domini," "the year of our Lord"). The first century BCE is the period from 99 BCE to 1 BCE; the first century CE is from the year 1 CE to 99 CE. Similarly, the second century BCE is the period from 199 BCE to 100 BCE; the second century CE extends from 100 CE to 199 CE.



Circa ("about") is used with approximate dates, abbreviated to "c." This indicates that an exact date (or date range) is not yet verified.

An illustration is called a "figure," abbreviated as "fig." Thus, figure 6–7 is the seventh numbered illustration in Chapter 6, and figure Intro–3 is the third figure in the Introduction. There are two types of figures: photographs of artworks or models, and line drawings. Drawings are used when a work cannot be photographed or when a diagram or simple drawing is the clearest way to illustrate aspects of an object or a place.

When introducing artists, we use the words *active* and *documented* with dates, in addition to "b." (for "born") and "d." (for "died"). "Active" means that an artist worked during the years given. "Documented" means that documents link the person to that date.

Accents are used for words in French, German, Italian, and Spanish only. With few exceptions, names of cultural institutions in Western European countries are given in the form used in that country.

Titles of Works of Art It was only over the last 500 years that paintings and works of sculpture created in Europe and North America were given formal titles, either by the artist or by critics and art historians. Such formal titles are printed in italics. At other times, and in other traditions and cultures in which single titles are not important or even recognized, the descriptive titles used here are not italicized. Most often formal titles are given in English, but if a non-English title is commonly used for the work (as in FIG. 31-17, Manet's *Luncheon on the Grass*), that title (*Le déjeuner sur l'herbe*) will appear in parentheses after the English title. In all cases, titles of works that are particularly important in a chapter are shown in all capital letters and bold type.

Starter Kit

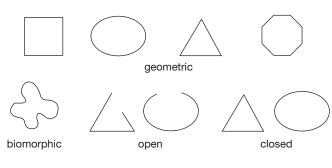
Art history focuses on the visual arts—painting, drawing, sculpture, prints, photography, ceramics, metalwork, architecture, and more. This Starter Kit addresses the basic, underlying information and concepts of art history; you can use it as a quick reference guide to the vocabulary used to classify and describe art objects. Understanding these terms is indispensable because you will encounter them again and again in reading, talking, and writing about art.

Let us begin with the basic properties of art. A work of art is a material object having both *form* and *content*. It is often described and categorized according to its *style* and *medium*.

FORM

Referring to purely visual aspects of art and architecture, the term *form* encompasses qualities of *line*, *shape*, *color*, *light*, *texture*, *space*, *mass*, *volume*, and *composition*. These qualities are known as *formal elements*. When art historians use the term *formal*, they mean "relating to form."

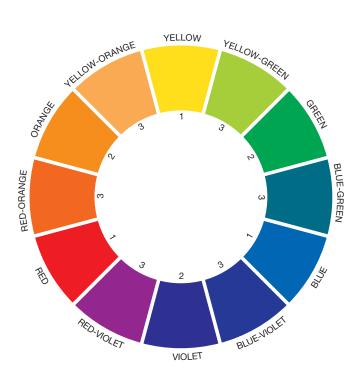
Line and **shape** are attributes of form. Line is an element—usually drawn or painted—the length of which is so much greater than the width that we perceive it as having only length. Line can be actual (when the line is visible), or it can be implied (when the movement of the viewer's eyes over the surface of a work follows a path encouraged by the artist). Shape, on the other hand, is the two-dimensional, or flat, area defined by the borders of an enclosing *outline* or *contour*. Shape can be *geometric*, *biomorphic* (suggesting living things; sometimes called *organic*), *closed*, or *open*. The *outline* or *contour* of a three-dimensional object can also be perceived as line.



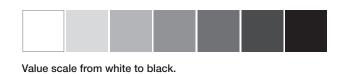
Shape

Color has several attributes. These include *hue*, *value*, and *saturation*.

Hue is what we think of when we hear the word color; the terms are interchangeable. We perceive hues as a result of differing wavelengths of electromagnetic energy. The visible spectrum, which can be seen in a rainbow, runs from red through violet. When the ends of the spectrum are connected through the hue red-violet, the result may be diagrammed as a color wheel. The primary hues (numbered 1 in the diagram) are red, yellow, and blue. They are known as primaries because all other colors are made by combining these hues. Orange, green, and violet result from the mixture of two primaries and are known as secondary hues (numbered 2). Intermediate hues, or tertiaries (numbered 3), result from the mixture of a primary and a secondary. Complementary colors are the two colors directly opposite one another on the color wheel, such as red and green. Red, orange, and yellow are regarded as warm colors and appear to advance toward us. Blue, green, and violet, which seem to recede, are called cool colors. Black and white are considered neutrals, not colors but, in terms of light, black is understood as the absence of color and white as the mixture of all colors.



Value is the relative degree of lightness or darkness of a given color and is created by the amount of light reflected from an object's surface. A dark green has a deeper value than a light green, for example. In black-and-white reproductions of colored objects, you see only value, and some artworks-for example, a drawing made with black inkpossess only value, not hue or saturation.





Value variation in red.

Saturation, also sometimes referred to as intensity, is a color's quality of brightness or dullness. A color described as highly saturated looks vivid and pure; a hue of low saturation looks muddy or grayed.



Texture, another attribute of form, is the tactile (or touchperceived) quality of a surface. It is described by words such as smooth, polished, rough, prickly, grainy, or oily. Texture takes two forms: the texture of the actual surface of the work of art and the implied (illusionistically described) surface of objects represented in the work of art.

Technique PICTORIAL DEVICES FOR DEPICTING RECESSION IN SPACE



overlapping

In overlapping, partially covered elements are meant to be seen as located behind those covering them.



diminution

In diminution of scale. successively smaller elements are perceived as being progressively farther away than the largest ones.



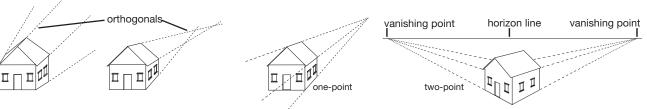
vertical perspective

Vertical perspective stacks elements, with the higher ones intended to be perceived as deeper in space.



atmospheric perspective

Through atmospheric perspective, objects in the far distance (often in bluish-gray hues) have less clarity than nearer objects. The sky becomes paler as it approaches the horizon.



divergent perspective

In divergent or reverse perspective, forms widen slightly and imaginary lines called orthogonals diverge as they recede in space.

intuitive perspective

Intuitive perspective takes the opposite approach from divergent perspective. Forms become narrower and orthogonals converge the farther they are from the viewer, approximating the optical experience of spatial recession.

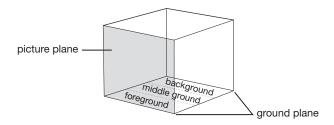
linear perspective

Linear perspective (also called scientific, mathematical, one-point and Renaissance perspective) is a rationalization or standardization of intuitive perspective that was developed in fifteenth-century Italy. It uses mathematical formulas to construct images in which all elements are shaped by, or arranged along, orthogonals that converge in one or more vanishing points on a horizon line.

Space is what contains forms. It may be actual and threedimensional, as it is with sculpture and architecture, or it may be fictional, represented illusionistically in two dimensions, as when artists represent recession into the distance on a flat surface—such as a wall or a canvas—by using various systems of *perspective*.

Mass and **volume** are properties of three-dimensional things. Mass is solid matter—whether sculpture or architecture—that takes up space. Volume is enclosed or defined space and may be either solid or hollow. Like space, mass and volume may be illusionistically represented on a two-dimensional surface, such as in a painting or a photograph.

Composition is the organization, or arrangement, of forms in a work of art. Shapes and colors may be repeated or varied, balanced symmetrically or asymmetrically; they may be stable or dynamic. The possibilities are nearly endless, and the artist's choices depend both on the time and place where the work was created and the objectives of individual artists. Pictorial depth (spatial recession) is a specialized aspect of composition in which the three-dimensional world is represented on a flat surface, or *picture plane*. The area "behind" the picture plane is called the *picture space* and conventionally contains three "zones": foreground, middle ground, and *background*.



Various techniques for conveying a sense of pictorial depth have been devised by artists in different cultures and at different times (see "Pictorial Devices for Depicting Recession in Space" opposite). In some European art, the use of various systems of perspective has sought to create highly convincing illusions of recession into space. At other times and in other cultures, indications of recession have been suppressed or avoided in order to emphasize surface rather than space.

CONTENT

Content includes *subject matter*, but not all works of art have subject matter. Many buildings, paintings, sculptures, and other art objects include no recognizable references to things in nature nor to any story or historical situation, focusing instead on lines, colors, masses, volumes, and other formal elements. However, all works of art—even those without recognizable subject matter—have content, or meaning, insofar as they seek to communicate ideas, convey feelings, or affirm the beliefs and values of their makers, their patrons, and usually the people who originally viewed or used them.

Content may derive from the social, political, religious, and economic *contexts* in which a work was created, the *intention* of the artist, and the *reception* of the work by beholders (the audience). Art historians, applying different methods of *interpretation*, often arrive at different conclusions regarding the content of a work of art, and single works of art can contain more than one meaning because they are occasionally directed at more than one audience.

The study of subject matter is called *iconography* (literally, "the writing of images") and includes the identification of *symbols* —images that take on meaning through association, resemblance, or convention.

STYLE

Expressed very broadly, *style* is the combination of form and composition that makes a work distinctive. *Stylistic analysis* is one of art history's most developed practices, because it is how art historians recognize the work of an individual artist or the characteristic manner of groups of artists working in a particular time or place. Some of the most commonly used terms to discuss *artistic styles* include *period style, regional style, personal style, representational style, abstract style, linear style,* and *painterly style.*

Period style refers to the common traits of works of art and architecture from a particular historical era. It is good practice not to use the words "style" and "period" interchangeably. Style is the sum of many influences and characteristics, including the period of its creation. An example of proper usage is "an American house from the Colonial period built in the Georgian style."

Regional style refers to stylistic traits that persist in a geographic region. An art historian whose specialty is medieval art can recognize Spanish style through many successive medieval periods and can distinguish individual objects created in medieval Spain from other medieval objects that were created in, for example, Italy.

Personal style refers to stylistic traits associated with an individual artist.

Representational styles are those that describe the appearance of recognizable subject matter in ways that make it seem lifelike.

Realism and **naturalism** are terms that some people use interchangeably to characterize artists' attempts to represent the observable world in a manner that appears to describe its visual appearance accurately. When capitalized, Realism refers to a specific period style (see Chapter 31). **Idealization** strives to create images of physical perfection according to the prevailing values or tastes of a culture. An artist may work in a representational style and idealize it to capture an underlying value or expressive effect.

Illusionism refers to a highly detailed style that seeks to create a convincing illusion of physical reality by describing its visual appearance meticulously.

Abstract styles depart from mimicking lifelike appearance to capture the essence of a form. An abstract artist may work from nature or from a memory image of nature's forms and colors, which are simplified, stylized, perfected, distorted, elaborated, or otherwise transformed to achieve a desired expressive effect.

Nonrepresentational (or nonobjective) is a term used for works of art that do not aim to mimic lifelike appearances.

Expressionism refers to styles in which the artist exaggerates aspects of form to draw out the beholder's subjective response or to project the artist's own subjective feelings.

Linear describes both styles and techniques. In linear styles artists use line as the primary means of definition. But linear paintings can also incorporate *modeling*—creating an illusion of three-dimensional substance through shading, usually executed so that brushstrokes nearly disappear.

Painterly describes a style of representation in which vigorous, evident brushstrokes dominate, and outlines, shadows, and highlights are brushed in freely.

MEDIUM AND TECHNIQUE

Medium (plural, *media*) refers to the material or materials from which a work of art is made. Literally anything can be used to make a work of art, including not only traditional materials like paint, ink, and stone, but also rubbish, food, and the earth itself.

Technique is the process that transforms media into a work of art. Various techniques are explained throughout this book in "Technique" features. Two-dimensional media and techniques include painting, drawing, printmaking, and photography. Three-dimensional media and techniques are sculpture (using, for example, stone, wood, clay, or metal), architecture, and small-scale arts (such as jewelry, containers, or vessels) in media such as ceramics, metal, or wood.

Painting includes wall painting and fresco, illumination (the decoration of books with paintings), panel painting (painting on wood panels), painting on canvas, and handscroll and hanging scroll painting. The paint in these examples is pigment mixed with a liquid vehicle, or binder. Some art historians also consider pictorial media such as mosaic and stained glass—where the pigment is arranged in solid form—as a type of painting.

Graphic arts are those that involve the application of lines and strokes to a two-dimensional surface or support, most often paper. Drawing is a graphic art, as are the various forms of printmaking. Drawings may be sketches (quick visual notes, often made in preparation for larger drawings or paintings); studies (more carefully drawn analyses of details or entire compositions); cartoons (full-scale drawings made in preparation for work in another medium, such as fresco, stained glass, or tapestry); or complete artworks in themselves. Drawings can be made with ink, charcoal, crayon, or pencil. Prints, unlike drawings, are made in multiple copies. The various forms of printmaking include woodcut, the intaglio processes (engraving, etching, drypoint), and lithography.

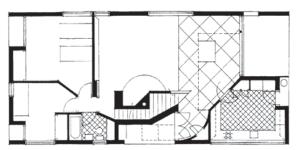
Photography (literally, "light writing") is a medium that involves the rendering of optical images through a recording of light effects. Photographic images are typically recorded by a camera.

Sculpture is three-dimensional art that is carved, modeled, cast, or assembled. Carved sculpture is subtractive in the sense that the image is created by taking away material. Wood, stone, and ivory are common materials used to create carved sculptures. Modeled sculpture is considered additive, meaning that the object is built up from a material, such as clay, that is soft enough to be molded and shaped. Metal sculpture is usually cast or is assembled by welding or a similar means of permanent joining.

Sculpture is either free-standing (that is, surrounded by space) or pictorial relief. Relief sculpture projects from the background surface of the same piece of material. High-relief sculpture projects far from its background; low-relief sculpture is only slightly raised; and sunken relief, found mainly in ancient Egyptian art, is carved into the surface, with the highest part of the relief being the flat surface.

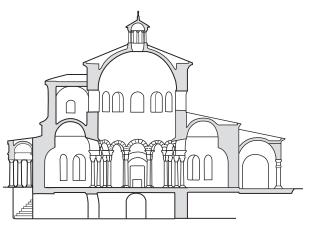
Ephemeral arts include processions, ceremonies, and ritual dances (often with décor, costumes, or masks); performance art; earthworks; cinema and video art; and some forms of digital or computer art. All impose a temporal limitation—the artwork is viewable for a finite period of time and then disappears forever, is in a constant state of change, or must be replayed to be experienced again.

Architecture creates enclosures for human activity or habitation. It is three-dimensional, highly spatial, functional, and closely bound with developments in technology and materials. Since it is difficult to capture in a photograph, several types of schematic drawings are commonly used to enable the visualization of a building: **Plans** depict a structure's masses and voids, presenting a view from above of the building's footprint as if it had been sliced horizontally at about waist height.



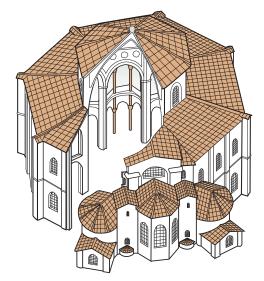
Plan: Philadelphia, Vanna Venturi House

Sections reveal the interior of a building as if it had been cut vertically from top to bottom.

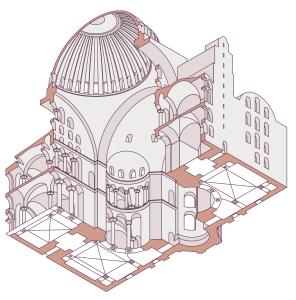


Section: Rome, Sta. Costanza

Isometric drawings show buildings from oblique angles either seen from above ("bird's-eye view") to reveal their basic three-dimensional forms (often cut away so we can peek inside) or from below ("worm'seye view") to represent the arrangement of interior spaces and the upward projection of structural elements.



Isometric cutaway from above: Ravenna, San Vitale



Isometric projection from below: Istanbul, Hagia Sophia

Introduction



Learning Objectives

- **I.a** Explain the cultural foundations of the diverse ways art has been defined and characterized.
- **I.b** Distinguish four ways art historians investigate works of art.

The title of this book seems clear. It defines a field of academic study and scholarly research that has achieved a secure place in college and university curricula across North America. But *Art History* couples two words—even two worlds—that are less well focused when separated. What is art? In what sense does it have a history? Students of art and its history should pause and engage, even if briefly, with these large questions before beginning the journey surveyed in the following chapters.

What is Art?

What are the cultural foundations of the diverse ways art has been defined and characterized?

Artists, critics, art historians, and the general public all grapple with this thorny question. The *Random House Dictionary* defines "art" as "the quality, production, expression, or realm of what is beautiful, or of more than ordinary significance." Others have characterized "art" as something human-made that combines creative imagination and technical skill and satisfies an innate desire for order and harmony—perhaps a human hunger for the beautiful. This seems relatively straightforward until we start to look at modern and contemporary art, where there has been a heated and extended debate concerning "What is art?" The focus is often far from questions of transcendent beauty, ordered design, or technical skill; it centers instead on the conceptual meaning of a work for an elite target audience or the attempt to pose challenging questions or unsettle deep-seated cultural ideas.

The works of art discussed in this book represent a privileged subset of artifacts produced by past and present cultures. They were usually meant to be preserved, **I.c** Identify the components of the four-part method of art historical investigation that leads to the historical interpretation of a work of art.

and they are currently considered worthy of conservation and display. The determination of which artifacts are exceptional-which are works of art-evolves through the actions, opinions, and selections of artists, patrons, governments, collectors, archaeologists, museums, art historians, and others. Labeling objects as art is usually meant to signal that they transcended or now transcend in some profound way their practical function, often embodying cherished cultural ideas or asserting foundational values. Sometimes it can also mean they are considered beautiful, well designed, and made with loving care, but this is not always the case. We will discover that at various times and places, the complex notion of what art is has little to do with standards of skill or beauty. Some critics and historians argue broadly that works of art are tendentious embodiments of power and privilege, hardly sublime expressions of beauty or truth. After all, art can be unsettling as well as soothing, challenging as well as reassuring, whether made in the present or surviving from the past.

Increasingly, we are realizing that our judgments about what constitutes art—as well as what constitutes beauty—are conditioned by our own education and experience. Whether acquired at home, in classrooms, in museums, at the movies, or on the Internet, our responses to art are learned behaviors influenced by class, gender, race, geography, and economic status as well as education. Even art historians find that their definitions of what constitutes art—and what constitutes artistic quality—evolve with additional research and understanding. Exploring works by twentieth-century painter Mark Rothko and nineteenth-century quilt-makers Martha Knowles and Henrietta Thomas demonstrates how definitions of art and artistic value are subject to change over time.



Rothko's painting NO. 3/NO. 13 (MAGENTA, BLACK, GREEN ON ORANGE) (FIG. Intro-1), is a well-known example of the sort of abstract painting that was considered the epitome of artistic sophistication by the mid-twentiethcentury New York art establishment. It was created by an artist who meant it to be a work of art. It was acquired by the Museum of Modern Art in New York, and its position on the walls of that museum is a sure sign of its acceptance as art by a powerful cultural institution. However, outside the context of the American artists, dealers, critics, and collectors who made up Rothko's art world, such paintings were often received with skepticism. They were seen by many as incomprehensible-lacking both technical skill and recognizable subject matter, two criteria that were part of the general public's definition of art at the time. Abstract paintings inspired a popular retort: "That's not art; my child could do it!" Interestingly enough, Rothko saw in the childlike character of his own paintings one of the qualities that made them works of art. Children, he said, "put forms, figures, and views into pictorial arrangements, employing out of necessity most of the rules of optical perspective and geometry but without the knowledge that they are employing them." He characterized his own art as childlike, as "an attempt to recapture the freshness and naiveté of childish

INTRO-1 Mark Rothko **MAGENTA, BLACK, GREEN ON ORANGE (NO. 3/NO. 13)** 1949. Oil on canvas, 7 $1\% \times 55$ (2.165 × 1.648 m).

Credit: © 2016. Digital Image, The Museum of Modern Art, New York/Scala, Florence. © 1998 Kate Rothko Prizel & Christopher Rothko/Artists Rights Society (ARS), New York

Museum of Modern Art, New York.

vision." In part because they are carefully crafted by an established artist who provided these kinds of intellectual justifications for their character and appearance, Rothko's abstract paintings are broadly considered works of art and are treasured possessions of major museums across the globe.

Works of art, however, do not always have to be created by individuals who perceive themselves as artists. Nor are all works produced for an art market surrounded by critics and collectors ready to explain, exhibit, and disperse them, ideally to prestigious museums. Such is the case with this quilt (**FIG. Intro-2**) made by Martha Knowles and Henrietta Thomas a century before Rothko's painting. Their work is similarly composed of blocks of color, and, like Rothko, they produced their visual effect by arranging these flat chromatic shapes carefully and regularly on a rectangular field. But this quilt was not meant to hang on the wall of an art museum. It is the social product of a friendship, intended as an intimate



INTRO-2 Martha Knowles and Henrietta Thomas MY SWEET SISTER EMMA

1843. Cotton quilt, 8 11 \times 9 1 (2.72 \times 2.77 m). International Quilt Studies Center and Museum, University of Nebraska, Lincoln.

gift presented to a loved one for use in her home. An inscription on the quilt itself makes this clear: "From M.A. Knowles to her Sweet Sister Emma, 1843." Thousands of such friendship quilts were made by women during the middle years of the nineteenth century for use on beds, either to provide warmth or as a covering spread. Whereas quilts were sometimes displayed to a broad and enthusiastic audience of producers and admirers at competitions held at state and county fairs, they were not collected by art museums or revered by artists until relatively recently.

In 1971 at the Whitney Museum in New York—an establishment bastion of the art world of which Rothko had been a part—art historians Jonathan Holstein and Gail van der Hoof mounted an exhibition entitled "Abstract Design in American Quilts," demonstrating the artistic affinity we have already noted in comparing the way Knowles and Thomas, like Rothko, create abstract patterns with fields of color. Quilts were later accepted—or perhaps **appropriated**—as works of art and hung on the walls of a New York art museum because of their visual similarities with the avant-garde, abstract works of art created by elite New York artists.

Art historian Patricia Mainardi took the case for quilts one significant step further in a pioneering article of 1973 published in *The Feminist Art Journal*. Entitled "Quilts: The Great American Art," her argument was rooted not only in the aesthetic affinity of quilts with the esteemed work of contemporary abstract painters, but also in a political conviction that the definition of art had to be broadened. What was at stake here was historical veracity. Mainardi began, "Women have always made art. But for most women, the arts highest valued by male society have been closed to them for just that reason. They have put their cre-

ativity instead into the needlework arts, which exist in fantastic variety wherever there are women, and which in fact are a universal female art, transcending race, class, and national borders." She argued for the inclusion of quilts within the history of art to give deserved attention to the work of women artists who had been excluded from discussion because they created textiles and because they worked outside the male-dominated professional structures of the art world—because they

INTRO-3 Le Corbusier NÔTRE-DAME-DU-HAUT Ronchamp, France. 1950–1955.

Credit: © F.L.C./ADAGP, Paris/Artists Rights Society (ARS), New York 2016. Photo © Michal Sikorski/123 RF were women. Quilts now hang as works of art on the walls of museums and appear with regularity in books that survey the history of art.

As these two examples demonstrate, definitions of art are rooted in cultural systems of value that are subject to change. And as they change, the list of works considered by art historians is periodically revised. Determining what to study is a persistent part of the art historian's task.

Architecture

This book contains much more than paintings and textiles. Within these pages you will also encounter sculpture, vessels, books, churches, jewelry, tombs, chairs, temples, photographs, houses, and more. But as with Rothko's *No. 3/No. 13 (Magenta, Black, Green on Orange)* (SEE FIG. Intro-1) and Knowles and Thomas's *My Sweet Sister Emma* (SEE FIG. Intro-2), criteria have been used to determine which works are selected for inclusion in a book titled *Art History*. Architecture—which includes churches, tombs, temples, and houses, as well as many other kinds of buildings—presents an interesting case.

Buildings meet functional human needs by enclosing human habitation or activity. Many works of architecture, however, are considered "exceptional" because they transcend functional demands by manifesting distinguished architectural design or because they embody in important ways the values and goals of the culture that built them. Such buildings are usually produced by architects influenced, like painters, by great works and traditions from the past. In some cases they harmonize with, or react to, their natural or urban surroundings. For such reasons, they are discussed in books on the history of art.



Typical of such buildings is the church of Nôtre-Damedu-Haut in Ronchamp, France, designed and constructed between 1950 and 1955 by Swiss architect Charles-Edouard Jeanneret, better known by his pseudonym, Le Corbusier (FIG. Intro-3). This building is the product of a significant historical moment, rich in international cultural meaning. A pilgrimage church on this site had been destroyed during World War II, and the creation here of a new church symbolized the end of a devastating war, embodying hopes for a brighter global future. Le Corbusier's design-drawing on sources that ranged from Algerian mosques to imperial Roman villas, from crab shells to airplane wings-is sculptural as well as architectural. Built at the crest of a hill, it soars toward the sky but at the same time seems solidly anchored in the earth. And its coordination with the curves of the natural landscape creates an outdoor setting for religious ceremonies (to the right in the figure) to supplement the spaces of the church interior. In fact, this building is so renowned today as a monument of modern architecture that the bus-loads of pilgrims who arrive at the site are mainly architects and devotees of architectural history.

What is Art History?

What are four ways art historians investigate works of art?

There are many ways to study or appreciate works of art. Art history represents one specific approach, with its own goals and its own methods of assessment and interpretation. Simply put, art historians seek to understand the meaning of art from the past within its original cultural contexts, both from the point of view of its producersartists, architects, and patrons—as well as from the point of view of its consumers-those who formed its original audience. Coming to an understanding of the cultural meaning of a work of art requires detailed and patient investigation on many levels, especially with art that was produced long ago and in societies distinct from our own. This is a scholarly rather than an intuitive exercise. In art history, the work of art is seen as an embodiment of the values, goals, and aspirations of its time and place of origin. It is a part of culture.

Art historians use a variety of theoretical perspectives and interpretive strategies to do their work. But as a place to begin, the work of art historians can be divided into four types of investigation:

- 1. assessment of physical properties,
- 2. analysis of visual or formal structure,
- 3. identification of subject matter or conventional symbolism, and
- 4. integration within cultural context.

Assessing Physical Properties

Of the methods used by art historians to study works of art, this is the most objective, but it requires close access to the work itself. Physical properties include shape, size, materials, and technique. For instance, many pictures are rectangular (SEE FIG. Intro-1), but some are round (see FIG. C in "Closer Look" on page xxvii). Paintings as large as Rothko's require us to stand back if we want to take in the whole image, whereas some paintings (see FIG. A in "Closer Look" on page xxvi) are so small that we are drawn up close to examine their detail. Rothko's painting and Knowles and Thomas's quilt are both rectangles of similar size, but they are distinguished by the materials from which they are made—oil paint on canvas versus cotton fabric joined by stitching. In art history books, most physical properties can only be understood from descriptions in captions, but when we are in the presence of the work of art itself, size and shape may be the first thing we notice. To fully understand **medium** and technique, however, it may be necessary to employ methods of scientific analysis or documentary research to figure out the details of the practices of artists at the time when and place where the work was created.

Analyzing Formal Structure

Art historians explore the visual character that artists give their works—using the materials and the techniques chosen to create them—in a process called **formal analysis**. On the most basic level, it is divided into two parts:

- assessing the individual visual elements or formal vocabulary that make up pictorial or sculptural communication, and
- discovering the overall arrangement, organization, or structure of an image, a design system that art historians often refer to as **composition**.

THE ELEMENTS OF VISUAL EXPRESSION Artists control and vary the visual character of works of art to give their subjects and ideas meaning and expression, vibrancy and persuasion, challenge or delight (see "Closer Look" on pages xxvi-xxvii). For example, the motifs, objects, figures, and environments in paintings can be sharply defined by line (SEE FIGS. Intro-2, Intro-4), or they can be suggested by a sketchier definition (SEE FIGS. Intro-1, Intro-5). Painters can simulate the appearance of three-dimensional form through modeling or shading (SEE FIG. Intro-4 and FIG. C in "Closer Look" on page xxvii), that is, by imitating the way light from a single source will highlight one side of a solid while leaving the other side in shadow. Alternatively, artists can avoid any strong sense of three-dimensionality by emphasizing patterns on a surface rather than forms in space (SEE FIG. Intro-1 and FIG. A in "Closer Look" on page xxvi).

A Closer Look visual elements of pictorial expression: line, light, form, and color



LINE

A. CARPET PAGE FROM THE LINDISFARNE GOSPELS

From Lindisfarne, England. c. 715–720. Ink and tempera on vellum, $13\% \times$ 9^{7}_{16} (34×24 cm). The British Library, London.

Credit: © The British Library Board (Cotton Nero D. IV, f.26v)



Every element in this complicated painting is sharply outlined by abrupt changes between light and dark or between one color and another; there are no gradual or shaded transitions. Since the picture was created in part with pen and ink, the linearity is a logical extension of medium and technique. And although line itself is a "flattening" or two-dimensionalizing element in pictures, a complex and consistent system of overlapping gives the linear animal forms a sense of shallow but carefully worked-out three-dimensional relationships to one another.

LIGHT

B. Georges de la Tour **THE EDUCATION OF THE VIRGIN** c. 1650. Oil on canvas, $33 \times 39\frac{1}{2}$ (83.8×100.4 cm). The Frick Collection, New York. Purchased by the Frick Collection 1948. (1948.1.155).

The source of illumination is a candle depicted within the painting. The young girl's raised right hand shields its flame, allowing the artist to demonstrate his virtuosity in painting the translucency of human flesh.

Since the candle's flame is partially concealed, its luminous intensity is not allowed to distract from those aspects of the painting most brilliantly illuminated by it—the face of the girl and the book she is reading.



FORM

C. Michelangelo THE HOLY FAMILY (DONI TONDO)

c. 1503. Oil and tempera on panel, diameter 3 11¹/₄ (1.2 m). Galleria degli Uffizi, Florence.

Credit: © Studio Fotografico Quattrone, Florence

The actual threedimensional projection of the sculpted heads in medallions around the frame-designed for this painting by Michelangelo himselfheightens the illusion of three-dimensionality in the figures painted on its flat surface.



The complex overlapping of their highly threedimensionalized bodies conveys the somewhat contorted positions and spatial relationship of these three figures.

Through the use of modeling or shading-a gradual transition from lights to darks-Michelangelo imitates the way solid forms are illuminated from a single light source-the side closest to the light source is bright while the other side is cast in shadow-and gives a sense of threedimensional form to his figures.

In a technique called **foreshortening**, the carefully calculated angle of the Virgin's elbow makes it seem to project out toward the viewer.



Junayd chose to flood every aspect of his painting with light, as if everything in it were illuminated from all sides at once. As a result, the emphasis here is on jewel-like color. The vibrant tonalities and dazzling detail of the dreamy landscape are not only more important than the simulation of threedimensional forms within a space, they actually upstage the human drama taking place against a patterned, tipped-up ground in the lower third of the picture.

COLOR

D. Junayd HUMAY AND HUMAYUN

From a manuscript of the Divan of Kwaju Kirmani. Made in Baghdad, Iraq. 1396. Color, ink, and gold on paper, $12^{5}_{\%} \times 9^{7}_{16}$ (32×24 cm). The British Library, London.

Credit: © The British Library Board (Add. 18113, f.23)



XXVIII Introduction

INTRO-4 Raphael MADONNA OF THE GOLDFINCH (MADONNA DEL CARDELLINO) 1506. Oil on panel, $42 \times 29\frac{1}{2}$ (106.7 × 74.9 cm).

Galleria degli Uffizi, Florence.

The vibrant colors of this important work were revealed in the course of a careful, ten-year restoration, completed in 2008.

Credit: © Studio Fotografico Quattrone, Florence. Courtesy of the Ministero Beni e Att. Culturali

In addition to revealing the solid substance of forms through modeling, dramatic lighting can also guide viewers' attention to specific areas of a picture see **FIG. B** in "Closer Look" on page xxvi), or it can be lavished on every aspect of a picture to reveal all its detail and highlight the vibrancy of its color (see **FIG. D** in "Closer Look" on page xxvii). Color itself can be muted or intensified, depending on the mood artists want to create or the tastes and expectations of their audiences.

Thus, artists communicate with their viewers by making choices in the way they use and emphasize the elements of visual expression, and art historical analysis seeks to reveal how these choices bring meaning to a work of art. For example, in two paintings of women with children (SEE FIGS. Intro-4, Intro-5), Raphael and Renoir work with the same visual elements of line, form, light, and color in the creation of their images, but they employ these shared elements to different expressive ends. Raphael concentrates on line to clearly differentiate each element of

his picture as a separate form. Careful modeling describes these outlined forms as substantial solids surrounded by space. This gives his subjects a sense of clarity, stability, and grandeur. Renoir, on the other hand, focuses on the flickering of light and the play of color as he minimizes the sense of three-dimensionality in individual forms. This gives his image a more ephemeral, casual sense. Art historians pay close attention to such variations in the use of visual elements—the building blocks of artistic expression—and use visual analysis to characterize the expressive effect of a particular work, a particular artist, or a general period defined by place and date.

COMPOSITION When art historians analyze composition, they focus not on the individual elements of visual expression but on the overall arrangement and organizing design or structure of a work of art. In Raphael's **MADONNA OF THE GOLDFINCH (FIG. Intro-4**), for example, the group of figures has been arranged in a triangular shape and placed at the center of the picture. Raphael emphasized



this central focus by opening the clouds to reveal a patch of blue in the middle of the sky and by flanking the figural group with lacelike trees. Since the Madonna is at the center and the two boys are divided between the two sides of the triangle, roughly-though not precisely-equidistant from the center of the painting, this is a bilaterally symmetrical composition: on either side of an implied vertical line at the center of the picture, there are equivalent forms on left and right, matched and balanced in a mirrored correspondence. Art historians refer to such an implied line-around which the elements of a picture are organized—as an axis. Raphael's painting has not only a vertical, but also a horizontal axis, indicated by a line of demarcation between light and dark-as well as between degrees of color saturation-in the landscape. The belt of the Madonna's dress is aligned with this horizontal axis, and this correspondence, taken with the coordination of her head with the blue patch in the sky, relates her harmoniously to the natural world in which she sits, lending a sense of stability, order, and balance to the picture as a whole.

The main axis in Renoir's painting of MME. CHARPEN-TIER AND HER CHILDREN (FIG. Intro-5) is neither vertical nor horizontal, but diagonal, running from the upper right to the lower left corner of the painting. All major elements of the composition are aligned along this axis-dog, children, mother, and the table and chair that represent the most complex and detailed aspect of the setting. The upper left and lower right corners of the painting balance each other on either side of the diagonal axis as relatively simple fields of neutral tone, setting off and framing the main subjects between them. The resulting arrangement is not bilaterally symmetrical, but blatantly asymmetrical, with the large figural mass pushed into the left side of the picture. And unlike Raphael's composition, where the spatial relationship of the figures and their environment is mapped by the measured placement of elements that become increasingly smaller in scale and fuzzier in definition as they recede into the background, the relationship of Renoir's figures to their spatial environment is less clearly defined as they recede into the background along the dramatic diagonal axis. Nothing distracts us from the bold informality of this family gathering.

Both Raphael and Renoir arrange their figures carefully and purposefully, but they use distinctive compositional systems that communicate different notions of the way these figures interact with each other and the world around them. Art historians pay special attention to how pictures are arranged, because composition is one of the principal ways artists give their paintings expressive meaning.

Identifying Subject Matter

Art historians have traditionally sought subject matter and meaning in works of art with a system of analysis that was outlined by Erwin Panofsky (1892–1968), an influential German scholar who was expelled from his academic position by the Nazis in 1933 and spent the rest of his career of research and teaching in the United States. Panofsky proposed that when we seek to understand the subject of a work of art, we derive meaning initially in two ways:

- First we perceive what he called "natural subject matter" by recognizing forms and situations that we know from our own experience.
- Then we use what he called "iconography" to identify the conventional meanings associated with forms and figures as bearers of narrative or symbolic content, often specific to a particular time and place.

Some artworks, like Rothko's abstractions and Knowles and Thomas's quilt, do not contain subjects drawn from the world around us, from stories, or from conventional symbolism, but Panofsky's scheme remains a standard method of investigating meaning in works of art that present narrative subjects, portray specific people or places, or embody cultural values with iconic imagery or allegory.

NATURAL SUBJECT MATTER We recognize some things in works of visual art simply by virtue of living in a world similar to that represented by the artist. For example, in



the two paintings by Raphael and Renoir just examined (SEE FIGS. Intro-4. Intro-5), we immediately recognize the principal human figures in both as a woman and two children boys in the case of Raphael's painting, girls in Renoir's. We can also make a general identification of the animals: a bird in the hand of Raphael's boys, and a pet dog under one of Renoir's girls. And natural

INTRO-5 Auguste Renoir MME. CHARPENTIER AND HER CHILDREN

1878. Oil on canvas, $60\frac{1}{2} \times 74\frac{7}{8}$ (153.7 × 190.2 cm). Metropolitan Museum of Art, New York.

Credit: © 2016. Image copyright The Metropolitan Museum of Art/Art Resource/Scala, Florence subject matter can extend from an identification of figures to an understanding of the expressive significance of their postures and facial features. We might see in the boy who snuggles between the knees of the woman in Raphael's painting, placing his own foot on top of hers, an anxious child seeking the security of physical contact with a trusted caretaker—perhaps his mother—in response to fear of the bird he reaches out to touch. Many of us have seen insecure children take this very pose in response to potentially unsettling encounters.

The closer the work of art is in both time and place to our own situation temporally and geographically, the easier it sometimes is to identify what is represented. However, it's not always that simple. Although Renoir painted his picture almost 140 years ago in France, the furniture in the background still looks familiar, as does the book in the hand of Raphael's Madonna, painted five centuries before our time. But the object hanging from the belt of the scantily clad boy at the left in Raphael's painting will require identification for most of us. Iconographic investigation is necessary to understand the function of this form.

ICONOGRAPHY Some subjects are associated with conventional meanings established at a specific time or place, some of the human figures portrayed in works of art have specific identities, and some of the objects or forms have symbolic or allegorical meanings in addition to their natural subject matter. Discovering these conventional meanings of art's subject matter is called iconography (see "Closer Look" opposite).

For example, the woman accompanied in the outdoors by two boys in Raphael's Madonna of the Goldfinch (SEE FIG. INTRO-4) would have been immediately recognized by members of its intended early sixteenth-century Florentine audience as the Virgin Mary. Viewers would have identified the naked boy standing between her knees as her son Jesus and the boy holding the bird as Jesus's cousin John the Baptist, sheathed in the animal skin garment that he would wear in the wilderness and equipped with a shallow cup attached to his belt, ready to be used in baptisms. Such attributes of clothing and equipment are often critical in making iconographic identifications. The goldfinch in the Baptist's hand was at this time and place a symbol of Christ's death on the cross, an allegorical implication that makes the Christ Child's retreat into secure contact with his mother-already noted on the level of natural subject matter-understandable in relation to a specific story. The comprehension of conventional meanings in this painting would have been almost automatic among those for whom it was painted, but for us, separated by time and place, some research is necessary to recover associations that are no longer part of our everyday world.

Although it may not initially seem as unfamiliar, the subject matter of Renoir's 1878 portrait of *Mme*.

Charpentier and her Children (SEE FIG. Intro-5) is in fact even more obscure. There are those in twenty-first-century American culture for whom the figures and symbols in Raphael's painting are still recognizable and meaningful, but Marguérite-Louise Charpentier died in 1904, and no one living today would be able to identify her based on the likeness Renoir presumably gave to her face in this family portrait commissioned by her husband, the wealthy and influential publisher Georges Charpentier. We need the painting's title to make that identification. And Mme. Charpentier is outfitted here in a gown created by English designer Charles Frederick Worth, the dominant figure in late nineteenth-century Parisian high fashion. Her clothing was a clear attribute of her wealth for those who recognized its source; most of us need to investigate to uncover its meaning. But a greater surprise awaits the student who pursues further research on her children. Although they clearly seem to our eyes to represent two daughters, the child closest to Mme. Charpentier is actually her son Paul, who at age 3, following standard Parisian bourgeois practice, has not yet had his first haircut and still wears clothing comparable to that of his older sister Georgette, perched on the family dog. It is not unusual in art history to encounter situations where our initial conclusions on the level of natural subject matter will need to be revised after some iconographic research.

Integration within Cultural Context

Natural subject matter and iconography were only two of three steps proposed by Panofsky for coming to an understanding of the meaning of works of art. The third step he labeled "**iconology**." Its aim is to interpret the work of art as an embodiment of its cultural situation, to place it within broad social, political, religious, and intellectual contexts. Such integration into history requires more than identifying subject matter or conventional symbols; it requires a deep understanding of the beliefs and principles or goals and values that underlie a work of art's cultural situation as well as the position of an artist and patron within it.

In the "Closer Look" on iconography, the subject matter of two **still life** paintings (pictures of inanimate objects and fruits or flowers taken out of their natural contexts) is identified and elucidated, but to truly understand these two works as bearers of cultural meaning, more knowledge of the broader context and specific goals of artists and audiences is required. For example, the fact that Zhu Da (1626–1705) became a painter was rooted more in the political than the artistic history of China at the middle of the seventeenth century. As a member of the imperial family of the Ming dynasty, his life of privilege was disrupted when the Ming were overthrown during the Manchu conquest of China in 1644. Fleeing for his life, he sought refuge in a Buddhist monastery, where he wrote poetry and painted.

A Closer Look

These grapes sit on an imported, Italian silver *tazza*, a luxury object that may commemorate northern European prosperity and trade. This particular object recurs in several of Peeters's other still lifes.

An image of the artist herself appears on the reflective surface of this pewter tankard, one of the ways that she signed her paintings and promoted her career.

Luscious fruits and flowers celebrate the abundance of nature, but because these fruits of the earth will eventually fade, even rot, they could be moralizing references to the transience of earthly existence.

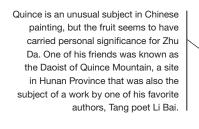
Detailed renderings of insects showcased Peeters's virtuosity as a painter, but they also may have symbolized the vulnerability of the worldly beauty of flowers and fruit to destruction and decay.



These coins, including one minted in 1608– 1609, help focus the dating of this painting. The highlighting of money within a still life could reference the wealth of the owner—or it could subtly allude to the value the artist has crafted here in paint.

This knife—which appears in several of Peeters's still lifes—is of a type that is associated with wedding gifts.

A. Clara Peeters STILL LIFE WITH FRUIT AND FLOWERS c. 1612. Oil on copper, $25\frac{1}{5} \times 35$ (64 × 89 cm). Ashmolean Museum, Oxford. Credit: Bridgeman Images





The artist's signature reads "Bada Shanren painted this," using a familiar pseudonym in a formula and calligraphic style that the artist ceased using in 1695.

This red block is a seal with an inscription drawn from a Confucian text: "Teaching is half of learning." This was imprinted on the work by the artist as an aspect of his signature, a symbol of his identity within the picture, just as the reflection and inscribed knife identify Clara Peeters as the painter of her still life.

B. Zhu Da (Bada Shanren) QUINCE (MUGUA) 1690. Album leaf mounted as a hanging scroll; ink and colors on paper, 7⁷/₈ × 5³/₄ (20 × 14.6 cm). Princeton University Art Museum. Credit: © 2016. University Art Museum/Art Resource/Scala, Florence. Photo: Bruce M. White.

XXXII Introduction

Almost 40 years later, in the aftermath of a nervous breakdown (that could have been staged to avoid retribution for his family background), Zhu Da abandoned his monastic life and developed a career as a professional painter, adopting a series of descriptive pseudonyms-most notably Bada Shanren ("mountain man of eight greatnesses") by which he is most often known today. His paintings are at times saturated with veiled political commentary; at times they seek to accommodate the expectations of collectors to assure their marketability; and in paintings like FIGURE B, the artist seems to hark back to the contemplative, abstract, and spontaneous paintings associated with great Zen masters such as Muqi (c. 1201-after 1269), whose calligraphic pictures of isolated fruits seem almost like acts of devotion or detached contemplations on natural forms, rather than the works of a professional painter.

Clara Peeters's still life (see FIG. A in "Closer Look" on page xxxi), on the other hand, fits into a developing

Northern European painting tradition within which she was an established and successful professional, specializing in portrayals of food, flowers, fruit, and reflective objects. Still-life paintings in this tradition could be jubilant celebrations of the abundance of the natural world and the wealth of luxury objects available in the prosperous mercantile society of the Netherlands. Or they could be moralizing vanitas paintings, warning of the ephemeral meaning of those worldly possessions or even of life itself. But this painting has also been interpreted in a more personal way. Because the type of knife that sits in the foreground near the edge of the table was a popular wedding gift and is inscribed with the artist's own name, some have suggested that this still life could have celebrated Peeters's marriage. Or this could simply be a witty way to sign her picture. It certainly could be personal and at the same time participate in the broader cultural meaning of still-life paintings.



INTRO-6 Rogier van der Weyden CRUCIFIXION WITH THE VIRGIN AND ST. JOHN THE EVANGELIST c. 1460. Oil on oak panels, 71 × 73 (1.8 × 1.85 m). John G. Johnson Collection, Philadelphia Museum of Art. Credit: © 2016. Photo The Philadelphia Museum of Art/Art Resouce/Scala, Florence

Mixtures of private and public meanings have been proposed for Zhu Da's paintings as well. Some have seen his picture of quince as part of a series of allegorical selfportraits that extend across his career as a painter. Art historians frequently discover multiple meanings when interpreting single works. Art often represents complex cultural and personal situations.

A Case Study: Rogier van der Weyden's Philadelphia *Crucifixion*

How does the four-part art historical method lead to an art historical interpretation of a specific work of art?

The basic, four-part method of art historical investigation and interpretation just outlined and explored may become clearer when its extended use is traced in relation to one specific work of art. A particularly revealing subject for such a case study is a seminal and somewhat perplexing painting now in the Philadelphia Museum of Art-the CRUCIFIXION WITH THE VIRGIN AND ST. JOHN THE EVAN-**GELIST** (FIG. Intro-6) by the Flemish artist Rogier van der Weyden (c. 1400–1464) (see Chapter 19). Each of the four levels of art historical inquiry reveals important information about this painting—information that has been used by art historians to reconstruct its relationship to its artist, its audience, and its broader cultural setting. The resulting interpretation is rich, but also complex. An investigation this extensive will not be possible for all the works of art in the following chapters, where the text will focus only on one or two facets of more expansive research. Because of the amount and complexity of information involved in a thorough art historical interpretation, it is sometimes only in a second reading that we can follow the subtleties of its argument, after a first reading has provided a basic familiarity with the work of art, its conventional subjects, and its general context.

Physical Properties

Perhaps the most striking aspect of this painting's physical appearance is its division into two separate tall rectangular panels, joined by a frame to form a coherent, almost square composition. These are oak panels, prepared with chalk to form a smooth surface on which to paint with mineral pigments suspended in oil. A technical investigation of the painting in 1981 used infrared reflectography to reveal a very sketchy underdrawing beneath the surface of the paint, indicating that this painting is almost entirely the work of Rogier van der Weyden himself. Famous and prosperous artists of this time and place employed many assistants to work in large production workshops, and they would make detailed underdrawings to ensure that assistants replicated the **style** of the master. But in cases where the masters themselves intended to execute the work, only sketchy compositional outlines were needed. In addition, modern technical investigation of Rogier's painting used **dendrochronology** (the dating of wood based on the patterns of the growth rings) to date the oak panels and consequently the painting itself, now securely situated near the end of the artist's career, c. 1460.

The most recent restoration of the painting-during the early 1990s by Mark Tucker, senior conservator at the Philadelphia Museum of Art—returned it, as close as possible, to what experts currently believe was its original fifteenth-century appearance (see "De-restoring and Restoring Rogier van der Weyden's Crucifixion" on page xxxiv). This project included extensive technical analvsis of almost every aspect of the picture, during which a critical clue emerged, one that may lead to a sharper understanding of its original use. X-rays revealed dowel holes and plugs running in a horizontal line about onefourth of the way up from the bottom across the entire expanse of the two-panel painting. Tucker's convincing research suggested that the dowels would have attached these two panels to the backs of wooden boxes or to carved tracery to form a complex work of art that combined sculpture and painting and was hung over the altar in a fifteenth-century church. Recently, Tucker worked collaboratively with art historian Griet Steyaert to identify two paintings that were originally on the reverse of these two panels, demonstrating that the Philadelphia diptych (two-panel painting) formed part of the exterior of the wings of the original **polyptych** (multiple-panel painting), visible only when it was closed (SEE FIGS. 19-13, 19-14 for views of another polyptych altarpiece with wings open and closed).

Formal Structure

The visual organization of this two-part painting emphasizes both connection and separation. It is at the same time one painting and two. Continuing across both panels are the strip of midnight blue sky and the stone wall that constricts space within the picture to a shallow corridor, pushing the figures into the foreground and close to the viewer. The shallow strip of mossy ground under the two-figure group in the left panel continues its sloping descent into the right panel, as does the hem of the Virgin's ice-blue garment. We look into this scene as if through a window with a mullion down the middle and assume that the world on the left continues behind this central strip of frame into the right side.

On the other hand, strong visual forces isolate the figures within their respective panels, setting up a system of "compare and contrast" that seems to be at the heart of

RECOVERING THE PAST

DE-RESTORING AND RESTORING ROGIER VAN DER WEYDEN'S CRUCIFIXION

Ever since Rogier van der Weyden's strikingly asymmetrical, two-panel rendering of the Crucifixion (SEE FIG. Intro-6) was purchased by Philadelphia lawyer John G. Johnson in 1906 for his spectacular collection of European paintings, it has been recognized not only as one of the greatest works by this master of fifteenth-century Flemish painting, but also as one of the most important European paintings in North America. Soon after the Johnson Collection became part of the Philadelphia Museum of Art in 1933, however, this painting's visual character was significantly transformed. In 1941, the museum employed freelance restorer David Rosen to work on the painting. Deciding that Rogier's work had been seriously marred by later overpainting and disfigured by the discoloration of old varnish, Rosen subjected the painting to a thorough cleaning. He also removed the strip of dark blue paint forming the sky above the wall at the top-identifying it as an eighteenth-century restoration-and replaced it with gold leaf to conform with remnants of gold in this area that he thought were surviving fragments of the original background. Rosen's restoration of Rogier's painting was uncritically accepted for almost half a century, and the gold background became a major factor in the interpretations of art historians as distinguished as Erwin Panofsky and Meyer Schapiro.

In 1990, in preparation for a new installation of the work, Rogier's painting received a thorough technical analysis by Mark Tucker, the museum's senior conservator. There were two startling discoveries:

- The dark blue strip that had run across the top of the picture before Rosen's intervention was actually original to the painting. Remnants of paint left behind in 1941 proved to be the same azurite blue that also appears in the clothing of the Virgin, and in no instance did the traces of gold discovered in 1941 run under aspects of the original paint surface. Rosen had removed Rogier's original midnight blue sky.
- What Rosen had interpreted as disfiguring varnish streaking the wall and darkening the brilliant cloths of honor hanging over it were actually Rogier's careful painting of lichens and water stains on the stone and his overpainting on the fabric that had originally transformed a vermillion undercoat into deep crimson cloth.

In meticulous work during 1992–1993, Tucker cautiously restored the painting based on the evidence he had uncovered. Neither the lost lichens and water stains nor the toning crimson overpainting of the hangings were replaced, but a coat of blueblack paint was laid over Rosen's gold leaf at the top of the panels, taking care to apply the new layer in such a way that should a later generation decide to return to the gold leaf sky, the midnight tonalities could be easily removed. That seems an unlikely prospect. The painting as exhibited today comes as close as possible to the original appearance of Rogier's *Crucifixion*. At least we think so for now.

the painting's design. The striking red cloths that hang over the wall are centered directly behind the figures on each side, forming internal frames that highlight them as separate groups and focus our attention back and forth between them rather than on the pictorial elements that unite their environments. As we begin to compare the two sides, it becomes increasingly clear that the relationship between figures and environment is quite distinct on each side of the divide.

The dead figure of Christ on the cross, elevated to the very top of the picture, is strictly centered within his panel, as well as against the cloth that hangs directly behind him. The grid of masonry blocks and creases in the cloth emphasizes his rectilinear integration into a system of balanced, rigid regularity. His head is aligned with the cap of the wall, his flesh largely contained within the area defined by the cloth. His elbows mark the juncture of the wall with the edge of the hanging, and his feet extend just to the end of the cloth, where his toes substitute for the border of fringe they overlap. The environment is almost as balanced. The strip of dark sky at the top is equivalent in size to the strip of mossy earth at the bottom of the picture, and both are visually bisected by centered horizontals—the cross bar at the top and the alignment of bone and skull at the bottom. A few disruptions to this stable, rectilinear, symmetrical order draw the viewer's attention to the panel at the left: the downward fall of the head of Christ, the visual weight of the skull, the downturn of the fluttering loin cloth, and the tip of the Virgin's gown that transgresses over the barrier to move in from the other side.

John and Mary merge on the left into a single figural mass that could be inscribed into a half-circle. Although set against a rectilinear grid background comparable to that behind Jesus, they contrast with, rather than conform to, the regular sense of order. Their curving outlines offer unsettling unsteadiness, as if they are toppling to the ground, jutting into the other side of the frame. This instability is reinforced by their postures. The projection of Mary's knee in relation to the angle of her torso reveals that she is collapsing into a curve, and the crumpled mass of drapery circling underneath her only underlines her lack of support. John reaches out to catch her, but he has not yet made contact with her body. He strikes a stance of strident instability without even touching the ground, and he looks blankly out into space with an unfocused expression, distracted from, rather than concentrating on, the task at hand. Perhaps he will come to his senses and grab her. But will he be able to catch her in time, and even then support her, given his unstable posture? The moment is tense; the outcome is unclear. But we are moving into the realm of natural subject matter. The poignancy of this concentrated portrayal seems to demand it.

Iconography

The subject of this painting is among the most familiar themes in the history of European art. The dead Jesus has been crucified on the cross, and two of his closest associates—his mother and John, one of his disciples—mourn his loss. Although easily recognizable, the austere and asymmetrical presentation is unexpected.

More usual is an earlier painting of this subject by the same artist, **CRUCIFIXION TRIPTYCH WITH DONORS AND SAINTS (FIG. Intro-7)**, where Rogier situates the crucified Christ at the center of a symmetrical arrangement, the undisputed axial focus of the composition. The scene unfolds here in an expansive landscape with a wider cast of participants, each of whom takes a place with symmetrical decorum on either side of the cross. Most crucifixions follow some variation on this pattern, so Rogier's two-panel portrayal (SEE FIG. Intro-6)—in which the cross is asymmetrically placed and the two figures near it are relegated to a separately framed and severely restricted space—requires some explanation, as does the mysterious, dark world beyond the wall and the artificial backdrop of the textile hangings.

This scene is not only austere and subdued, it is also sharply focused, and the focus relates it to a specific moment in the story that Rogier decided to represent. The Christian Bible contains four accounts of Jesus's crucifixion, one in each of the four Gospels. Rogier took two verses in John's account as his painting's text (John 19:26–27), cited here in the Douai-Reims literal English translation (1582, 1609) of the Latin Vulgate Bible that was used by Western European Christians during the fifteenth century:

When Jesus therefore had seen his mother and the disciple standing whom he loved, he saith to his mother: Woman, behold thy son. After that, he saith to the disciple: Behold thy mother. And from that hour, the disciple took her to his own.

Even the textual source uses conventions that need explanation, specifically the way the disciple John is consistently referred to in this Gospel as "the disciple whom Jesus loved." Rogier's painting, therefore, seems to focus on Jesus's call for a newly expanded relationship between his mother and a beloved follower. More specifically, he has projected us slightly forward in time to the moment when John needs to respond to that call—Jesus has died; John is now in charge.

There are, however, other conventional iconographic associations with the crucifixion that Rogier has folded into this spare portrayal. Fifteenth-century viewers would have understood the skull and femur that lie at the base of the cross as the bones of Adam—the first man in the



INTRO-7 Rogier van der Weyden CRUCIFIXION TRIPTYCH WITH DONORS AND SAINTS c. 1440. Oil on wooden panels, $39^{3/4} \times 55$ (101 × 140 cm). Kunsthistorisches Museum, Vienna.

Credit: © KHM-Museumsverband

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Hebrew Bible account of creation—on whose grave Jesus's crucifixion was believed to have taken place. This juxtaposition embodied the Christian belief that Christ's sacrifice on the cross redeemed believers from the death that Adam's original sin had brought to human existence.

Mary's swoon would have evoked another theological idea, the *co-passio*, in which Mary's anguish while witnessing Jesus's suffering and death was seen as a parallel passion of mother with son, both critical for human salvation. Their connection in this painting is underlined visually by the similar bending of their knees, inclination of their heads, and closing of their eyes. They even seem to resemble each other in facial likeness, especially when compared to John.

Cultural Context

In 1981 art historian Penny Howell Jolly published an interpretation of Rogier's Philadelphia *Crucifixion* as the product of a broad personal and cultural context. In addition to building on the work of earlier art historians, she pursued two productive lines of investigation to explain the rationale for this unusually austere presentation:

- the prospect that Rogier was influenced by the work of another artist, and
- the possibility that the painting was produced in a context that called for a special mode of visual presentation and a particular iconographic focus.



INTRO-8 VIEW OF A MONK'S CELL IN THE MONASTERY OF SAN MARCO, FLORENCE

Including Fra Angelico's fresco of the Annunciation. c. 1438-1445.





INTRO-9 Fra Angelico MOCKING OF CHRIST WITH THE VIRGIN MARY AND ST. DOMINIC Monastery of San Marco, Florence. c. 1441–1445.

 $\textbf{Credit:} \ \Circle 2016$ Photo Scala, Florence - courtesy of the Ministero Beni e Att. Culturali

FRA ANGELICO AT SAN MARCO We know very little about the life of Rogier van der Weyden, but we do know that in 1450, when he was already established as one of the principal painters in northern Europe, he made a pilgrimage to Rome. Either on his way to Rome or during his return journey home, he stopped in Florence and saw the altarpiece, and presumably also the frescos, that Fra Angelico (c. 1400–1455) and his workshop had painted during the 1440s at the monastery of San Marco. The evidence of Rogier's contact with Fra Angelico's work is found in a work Rogier painted after he returned home based on a panel of the San Marco altarpiece. For the Philadelphia Crucifixion, however, it was Fra Angelico's devotional frescos on the walls of the monks' individual rooms (or cells) that seem to have had the greatest impact (FIG. Intro-8). Jolly compared the Philadelphia Crucifixion with a scene of the Mocking of Christ at San Marco to demonstrate the connection (FIG. Intro-9). Fra Angelico presented the sacred figures with a quiet austerity that recalls Rogier's unusual composition. More specific parallels are the use of an expansive stone wall to restrict narrative space to a shallow foreground corridor, the description of the world beyond that wall as a dark sky that contrasts with the brilliantly illuminated foreground, and the use of a draped cloth of honor to draw attention to a narrative vignette from the life of Jesus, to separate it out as an object of devotion.

THE CARTHUSIANS Having established a possible connection between Rogier's painting and frescos by Fra Angelico that he likely saw during his pilgrimage to Rome in 1450, Jolly reconstructed a specific context of patronage and meaning within Rogier's own world in Flanders that could explain why the paintings of Fra Angelico would have had such an impact on him at this particular moment in his career.

During the years around 1450, Rogier developed a personal and professional relationship with the monastic order of the Carthusians, and especially with the Belgian Charterhouse (or Carthusian monastery) of Hérrines, where his oldest son was invested as a monk in 1450. Rogier gave money to Hérrines, and texts document his donation of a painting to its chapel of St. Catherine. Jolly suggested that the Philadelphia Crucifixion could be that painting. Its subdued colors and narrative austerity are consistent with Carthusian aesthetic attitudes, and the walled setting of the scene recalls the enclosed gardens that were attached to the individual dormitory rooms of Carthusian monks. The reference in this painting to the co-passio of the Virgin provides supporting evidence, since this theological idea was central to Carthusian thought and devotion. The copassio was even reflected in the monks' own initiation rites, during which they re-enacted and sought identification with both Christ's sacrifice on the cross and the Virgin's parallel suffering.

In Jolly's interpretation, the religious framework of a Carthusian setting for the painting emerges as a personal framework for the artist himself, since this *Crucifixion* seems to be associated with important moments in his own life—his religious pilgrimage to Rome in 1450 and the initiation of his oldest son as a Carthusian monk at about the same time. The sense of loss and separation that Rogier evoked in his portrayal of a poignant moment in the life of St. John (**FIG. Intro-10**) could have been especially meaningful to the artist himself at the time this work was painted.

ART HISTORY: A CONTINUING PROJECT The final word has not been spoken in the interpretation of Rogier's Philadelphia *Crucifixion*. Mark Tucker's recent work on the physical evidence points toward it having been part of a large sculptured altarpiece. Even if this rules out the prospect that it is the **panel painting** Rogier donated to



INTRO-10 DETAIL OF FIG. INTRO-6 SHOWING PART OF THE LEFT WING

Credit: © 2004. Photo The Phildelphia Museum of Art/Scala, Florence

Hérrines, it does not negate the relationship Jolly drew with Fra Angelico, nor the Carthusian context she outlined. It simply reminds us that our understanding of works such as this will evolve when new evidence about them emerges.

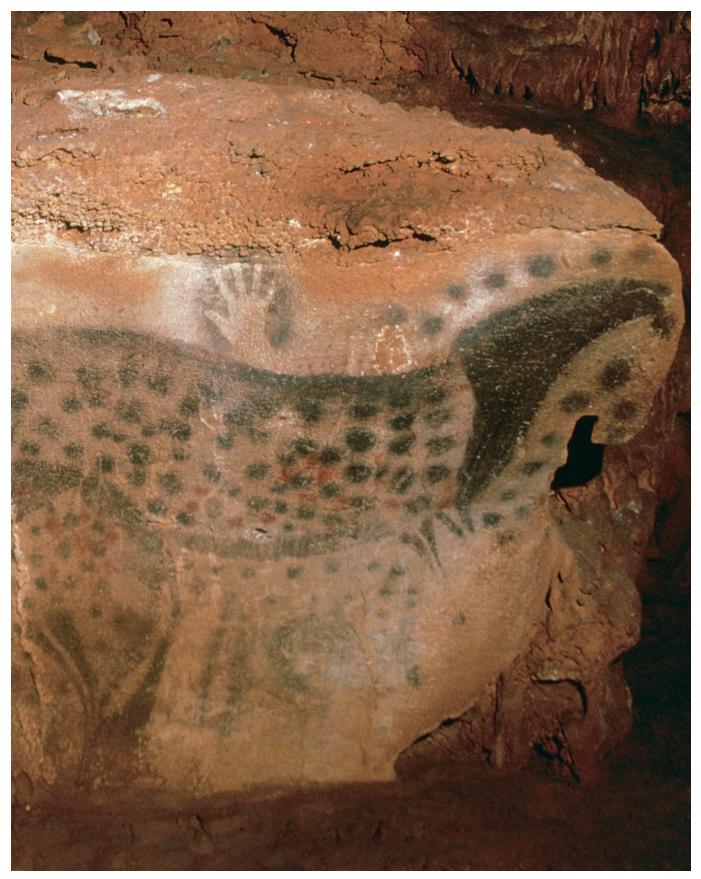
As the history of art unfolds in this book, it will be important to keep two things in mind as you read about individual works of art and their broader cultural contexts. Art historical interpretations are built on extended research comparable to what we have just surveyed for Rogier van der Weyden's Philadelphia *Crucifixion*. But the work of interpretation is never complete. Art history is a continuing project, a work perpetually in progress.

Think About It

- 1 Analyze the composition of one painting illustrated in this Introduction.
- 2 Characterize the difference between natural subject matter and iconography, focusing your discussion on a specific work of art.
- 3 What are the four separate steps proposed here for art historians to interpret works of art? Characterize

the cultural analysis in step four by showing how it expands our understanding of one of the still lifes in the second "Closer Look."

4 What aspect of the case study of Rogier van der Weyden's Philadelphia *Crucifixion* was most interesting to you? Why? How did it affect your understanding of what you will learn in this course?



1-1 SPOTTED HORSES AND HUMAN HANDS Pech-Merle Cave. Dordogne, France. Horses 25,000–24,000 BCE; hands c. 15,000 BCE. Paint on limestone, individual horses over 5' (1.5 m) in length.

Credit: © 2016 Photo Scala, Florence/bpk, Bildagentur für Kunst, Kultur und Geschichte, Berlin

Chapter 1 Prehistoric Art

\checkmark

Learning Objectives

- **1.a** Identify the visual hallmarks of Paleolithic, Neolithic, and Bronze Age art for formal, technical, and expressive qualities.
- **1.b** Interpret the meaning of works of Paleolithic, Neolithic, and Bronze Age art based on their themes, subjects, and symbols.
- **1.c** Relate Paleolithic, Neolithic, and Bronze Age artists and art to their cultural, economic, and political contexts.

This detail shows one of two horses positioned back-toback on the wall of a chamber within the Pech-Merle Cave, located in the Dordogne region of France (**FIG. 1-1**). The tapering head of this horse follows the natural shape of the rock. Black dots surround portions of its contours and fill most of its body, a striking feature that was believed to be decorative until DNA analysis of the remains of prehistoric horses, published in 2011, proved that one species flourishing at this time actually was spotted. In this instance, at least, prehistoric painters were painting what they saw.

At a later date, a large fish (58 inches long and very difficult to see here) was painted in red on top of the spots. Yet the painters left more than images of horses and fish; they left their own handprints in various places around the animals. These images, and many others hidden in chambers at the ends of long, narrow passages within the cave, connect us to an almost unimaginably ancient world of 25,000 BCE.

Prehistory includes all of human existence before the emergence of writing. When our ancestors were carving objects, painting images, and creating shelters and other structures 30,000 years ago, they were not making "works of art," and there were no "artists" as we use the term today. They were flaking, chipping, and polishing flint into tools spear points, knives, and scrapers—not sculptures, even if we find these artifacts pleasing to the eye and to the touch

- **1.d** Apply the vocabulary and concepts used to discuss Paleolithic, Neolithic, and Bronze Age art, artists, and art history.
- **1.e** Interpret Prehistoric art using appropriate art historical methods, such as observation, comparison, and inductive reasoning.
- **1.f** Select visual and textual evidence in various media to support an argument or an interpretation of Prehistoric art.

today. Wall paintings must have seemed equally important to their prehistoric makers in terms of everyday survival, not visual delight.

For art historians, archaeologists, and anthropologists, prehistoric "art" provides significant clues—along with fossils, pollen, and other artifacts—to understanding early human life and culture. Specialists continue to discover more about when and how these works were created. In 2012, for instance, an international team of scientists used a refined dating technology known as the uranium-thorium method (see "How Early Art is Dated" on page 12) to prove that some paintings in a Spanish cave known as El Castillo are at least 40,000 years old and probably much older—raising the possibility that they could have been painted by Neanderthals rather than *Homo sapiens*.

We may never know exactly why prehistoric paintings were made. In fact, there may be no single meaning or use for any one image on a cave wall; perhaps it meant different things to different people, depending on their age, their experience, or their specific needs and desires. And the sculpture, paintings, and structures that survive are but a tiny fraction of what must have been created over a very long time span. The conclusions and interpretations we draw from them are only educated guesses, making prehistoric art one of the most speculative, but dynamic and exciting, areas of art history.

The Stone Age

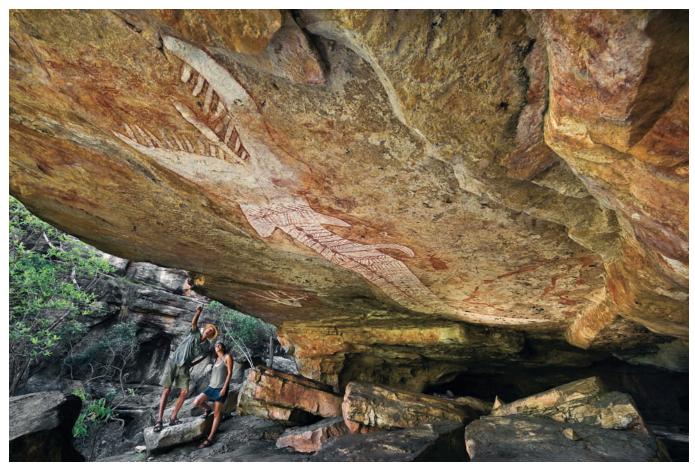
What are the cultural and historical contexts that led to the first artistic impulses of the Stone Age?

How and when modern humans evolved is the subject of ongoing debate, but anthropologists now agree that the species called *Homo sapiens* appeared about 400,000 years ago and that the subspecies to which we belong, *Homo sapiens sapiens* (usually referred to as modern humans), evolved as early as 120,000 years ago. Based on archaeological evidence, it is now clear that modern humans spread from Africa across Asia, into Europe, and finally to Australia and the Americas. This vast movement of people took place between 100,000 and 35,000 years ago.

Scholars began the systematic study of prehistory only about 200 years ago. Nineteenth-century archaeologists, struck by the wealth of stone tools, weapons, and figures found at ancient sites, named the whole period of early human development the Stone Age. Today, researchers divide the Stone Age into two parts: Paleolithic (from the Greek *paleo*-, "old," and *lithos*, "stone") and Neolithic (from the Greek *neo*-, "new"). They divide the Paleolithic period into three phases reflecting the relative position of objects found in layers of excavation: Lower (the oldest), Middle, and Upper (the most recent). In some places archaeologists can identify a transitional, or Mesolithic (from the Greek *meso-*, "middle"), period.

The dates for the transition from Paleolithic to Neolithic vary with geography and with local environmental and social circumstances. For some of the places discussed in this chapter, such as Western Europe, the Neolithic way of living did not emerge until 3000 BCE; in others, such as the Near East, it appeared as early as 8000 BCE. Archaeologists denote time in numbers of years BP ("before present"). However, to ensure consistent style throughout the book, which reflects the usage of art historians, this chapter uses the notations BCE (before the Common Era) and CE (the Common Era) to mark time.

Much is yet to be discovered about prehistoric art. In Australia, some of the world's very oldest images have been dated to between 50,000 and 40,000 years ago, and



1-2 RAINBOW SERPENT ROCK

Western Arnhem Land, Australia.

Appearing in Australia as early as 6000 BCE, images of the Rainbow Serpent play a role in rituals and legends of the creation of human beings, the generation of rains, storms, and floods, and the reproductive power of nature and people.



MAP 1-1 PREHISTORIC EUROPE

As the Ice Age glaciers receded, Paleolithic, Neolithic, Bronze Age, and Iron Age settlements increased from south to north.

the tradition of transient communities who marked the land in complex, yet stunningly beautiful ways continues into historical time. In western Arnhem Land (**FIG. 1-2**), rock art images of the Rainbow Serpent have their origins in prehistory. They were perhaps first created during times of substantial changes in the environment.

Africa, as well, is home to ancient rock art in both its northern and southern regions. And most recently, archaeologists have dated cave paintings on the Indonesian island of Sulawesi to between 35,000 and 40,000 years ago, including stenciled hands very similar to those appearing in Europe at Pech-Merle (SEE FIG. 1–1).

It is the cognitive capability to create and recognize symbols and imagery that sets modern humans apart from all our predecessors and all our contemporary animal relatives. We are defined as a species by our abilities to make and understand art. This chapter focuses primarily on prehistoric European art from the Paleolithic and Neolithic periods and into the Bronze Age (MAP 1-1). Later chapters consider some prehistoric art on other continents and from other cultures, such as China (Chapter 11) and sub-Saharan Africa (Chapter 14).

Tools or Art?

Human beings made tools long before they made what today we call "art." Art, in the sense of image making, is the hallmark of the Upper Paleolithic period and the emergence of our subspecies, *Homo sapiens sapiens*; representational images appear in the archaeological record beginning about 38,000 BCE in Australia, Africa, and Europe. Before that time, during the Lower Paleolithic period in Africa, early humans made tools by flaking and chipping (knapping) flint pebbles into blades and scrapers that had sharp edges. Dating to 2.5 million years ago, the earliest objects made by our human ancestors were simple stone tools used to cut animal skin and meat, smash open bones to reveal the marrow, and cut wood and other plant



1-3 PALEOLITHIC HAND-AXE
From Isimila Korongo, Tanzania. 60,000 years ago. Stone, height 10" (25.4 cm).
Credit: Werner Forman Archive

materials. These first tools have been found at sites such as Olduvai Gorge in Tanzania. Although not art, they document a critical development in our evolution: humans' ability to create specific tools and objects that could be used to complete a task.



By 1.65 million years ago, significant changes in our ancestors' cognitive abilities and manual dexterity can be seen in sophisticated stone tools, such as the teardropshaped hand-axes (FIG. 1-3) that have been found at sites across Eurasia. These extraordinary objects, symmetrical in form and produced by a complex multistep process, were long thought of as nothing more than tools (or perhaps even as weapons)-but the most recent analysis suggests that they had a social function as well. Some sites (such as Olorgesailie in Kenya) contain hundreds of hand-axes, far more than would have been needed in functional terms, suggesting that they served to announce an individual's skills, status, and standing in his or her community. Although these ancient hand-axes are clearly not art in the representational sense, it is important to see them in terms of performance and process. These concepts, so central to modern Western art, have deep prehistoric roots.

The Paleolithic Period

What do we know about the shelters and representational images from the Paleolithic period?

By 400,000 years ago, during the late Middle Paleolithic period, a *Homo sapiens* subspecies called Neanderthal inhabited Europe. Its members used a wider range of stone tools and may have carefully buried their dead with funerary offerings. Neanderthals survived for thousands of years and overlapped with modern humans, *Homo sapiens sapiens*, which had evolved and spread out of Africa some 300,000 years after the Neanderthals and eventually replaced them, probably between 38,000 and 33,000 BCE.

Critical cognitive abilities set modern humans apart from their predecessors; *Homo sapiens sapiens* outlasted Neanderthals as a species because they had the mental capacity to solve problems of human survival. The new cognitive abilities included improvements in recognizing

> and benefiting from variations in the natural environment and in managing social networking and alliance making—skills that enabled organized hunting. The most important new ability, however, was the capacity to think symbolically: to create representational analogies between one person, animal, or object, and another and to recognize and remember those analogies. This cognitive development marks the evolutionary origin of what we call art.

1-4 DECORATED OCHER

From Blombos Cave, southern Cape coast, South Africa. 77,000 years ago.

Credit: Image courtesy of Prof Christopher Henshilwood, University of Bergen, Norway



1-5 RECONSTRUCTION DRAWING OF MAMMOTH-BONE HOUSES Ukraine. c. 16,000–10,000 BCE Credit: Jack Unruh/National Geographic Creative

The world's earliest examples of art come from South Africa: two 77,000-year-old, engraved blocks of red ocher (probably used as crayons) found in the Blombos Cave (FIG. 1-4). Both blocks are engraved in an identical way with cross-hatched lines on their sides. Archaeologists argue that the similarity of the engraved patterns means these two pieces were intentionally made and decorated following a common pattern. Thousands of fragments of ocher have been discovered at Blombos; there is little doubt that people were using it to draw patterns and images, the remains of which have long since disappeared. It is highly likely that the ocher was used to decorate peoples' bodies, as well as to color objects such as tools or shell ornaments. In an earlier layer on the same site, archaeologists uncovered more than 36 shells, each of which had been perforated so that it could be hung from a string or thong, or attached to clothing or a person's hair; these shells would have been used for personal decoration. An ostrich eggshell bead from the same site would have served the same purpose. The Blombos finds are enormously important. Here our early ancestors, probably modern humans but possibly their predecessors, used the earth's raw materials to decorate themselves with jewelry and body art.

Shelter or Architecture?

"Architecture" usually refers to the enclosure of spaces with some aesthetic intent, and building even a simple shelter requires a degree of imagination and planning deserving of this term. In the Upper Paleolithic period, humans in some regions used great ingenuity to build shelters that were far from simple. In woodlands, evidence of floors indicates that our ancestors built circular or oval huts of light branches and hides that measured as much as 15 to 20 feet in diameter. (Modern tents to accommodate 6 people vary from 10- by 11-foot ovals to 14- by 7-foot rooms.)

In the treeless grasslands of Upper Paleolithic Russia and Ukraine, builders created settlements of up to ten houses using the bones of the now extinct woolly mammoth, whose long, curving tusks made excellent roof supports and arched door openings (FIG. 1-5). This bone framework was probably covered with animal hides and turf. Most activities centered around the inside fire pit, or hearth, where food was prepared and tools were made. Larger houses might have had more than one hearth, and spaces were set aside for specific uses-working stone, making clothing, sleeping, and dumping refuse. Inside the largest dwelling on a site in Mezhirich, Ukraine, archaeologists found 15 small hearths that still contained ashes and charred bones left by the last occupants. Some people colored their floors with powdered ocher in shades that ranged from yellow to red to brown. These Upper Paleolithic structures are important because of their early date: The widespread appearance of durable architecture concentrated in village communities did not occur until the beginning of the Neolithic period in the Near East and southeastern Europe.

Artifacts or Works of Art?

As early as 30,000 BCE small figures, or figurines, of people and animals made of bone, ivory, stone, and clay appeared in Europe and Asia. Today we interpret such self-contained, three-dimensional pieces as examples of **sculpture in the round**. Prehistoric carvers also produced **relief sculpture** in stone, bone, and ivory. In relief sculpture, part of the surrounding material is retained to form a background for the projecting figure. **THE LION-HUMAN** An early and puzzling example of a sculpture in the round is a human figure—probably male—with a feline head (**FIG. 1-6**), made about 30,000–26,000 BCE. Archaeologists excavating at Hohlenstein-Stadel, Germany, found broken pieces of ivory (from a mammoth tusk) that they realized were parts of an entire figure. Nearly a foot tall, this remarkable statue surpasses most early figurines in size and complexity.



1-6 LION-HUMAN

From Hohlenstein-Stadel, Germany. c. 40,000–35,000 BCE. Mammoth ivory, $12^{1}/_{4}^{\prime\prime} \times 2^{7}/_{8}^{\prime\prime}$ (31.1 × 7.3 cm). Ulmer Museum, Ulm, Germany. **Credit:** Photo: Yvonne Mühleis © Landesamt für Denkmalpflege im RP Stuttgart Instead of copying what he or she saw in nature, the carver created a unique creature, part human and part beast. The figure may have been intended to represent a person wearing a ritual lion mask—or someone who had actually taken on the appearance of an animal. Archaeologists now think that the people who lived at this time held very different ideas than ours about what it meant to be a human and how humans were distinct from animals; it is quite possible that they thought of animals and humans as parts of one common group of beings who shared the world. What is absolutely clear is that the Lion-Human is evidence of the uniquely human ability to conceive and represent a creature never seen in nature.

FEMALE FIGURES While a number of figurines representing men have been found recently, most human figures from the Upper Paleolithic period are female. The most famous of these, the **WOMAN FROM WILLENDORF** (**FIG. 1-7**), Austria, dates from about 24,000 BCE (see "The Power of Naming" opposite). Carved from limestone and originally colored with red ocher, the statuette's swelling,



1-7 WOMAN FROM WILLENDORF Austria. c. 24,000 BCE. Limestone, height 4³/₈" (11 cm). Naturhistorisches Museum, Vienna.

Credit: © akg-images/Erich Lessing

Art and its Contexts THE POWER OF NAMING

Words are only symbols for ideas, and it is no coincidence that the origins of language and of art are often linked in human evolutionary development. But the very words we invent—or our ancestors invented—reveal a certain view of the world and can shape our thinking. Today, we exert the power of naming when we select a name for a baby or call a friend by a nickname. Our ideas about art can also be affected by names. Before the twentieth century, artists usually did not name, or title, their works. Names were eventually supplied by the works' owners or by art historians writing about them, and thus often express the cultural prejudices of the labelers or of the times in which they lived.

An excellent example of such distortion is the naming of the hundreds of small prehistoric statues of women that have been found. Earlier scholars called them by the Roman name Venus. For example, the sculpture in **FIGURE 1–7** was once called the

rounded forms make it seem much larger than its actual 43%-inch height. The sculptor exaggerated the figure's female attributes by giving it pendulous breasts, a big belly with a deep navel (actually a natural indentation in the stone), wide hips, and dimpled knees and buttocks. By carving a woman with a well-nourished body, the artist may have been expressing health and fertility, which could ensure the ability to produce strong children, thus guaranteeing the survival of the clan.

The most recent analysis of the Paleolithic female sculptures, however, has replaced the traditional emphasis on fertility with more nuanced understandings of how and why the human figure is represented in this way, and who may have had these kinds of objects made. According to archaeologist Clive Gamble, these little sculptures were subtle forms of nonverbal communication among small, isolated groups of Paleolithic people spread out across vast regions. Gamble noted the tremendous (and unusual) similarity in the shapes of figures, even among those found in widely distant parts of Europe. He suggested that when groups of Paleolithic hunter-gatherers did occasionally meet up and interact, the female statues may have been among several signature objects that signaled whether a group was friendly and acceptable for interaction and, probably, for mating. As symbols, these figures would have provided reassurance of shared values about the body, and their size would have demanded engagement at a close personal level. It is not a coincidence, then, that the largest production of these figurines occurred during a period when climatic conditions were at their worst and the need for interaction and alliance building would have been at its greatest.

Another figure, the **WOMAN FROM DOLNÍ VĚSTONICE** (FIG. 1-8), takes our understanding of these objects further

Venus of Willendorf after the place where it was found. Using the name of the Roman goddess of love and beauty sent a message that this figure was associated with religious belief, that it represented an ideal of womanhood, and that it was one of a long line of images of "classical" feminine beauty. In a short time, most similar works of sculpture from the Upper Paleolithic period came to be known as Venus figures. The name was repeated so often that even experts began to assume that the statues had to be fertility figures and Mother Goddesses, although there is no proof that this was so.

Our ability to understand and interpret works of art responsibly and creatively is easily compromised by distracting labels. Calling a prehistoric figure a woman instead of Venus encourages us to think about the sculpture in new and different ways.



1-8 WOMAN FROM DOLNÍ VĚSTONICE
 Moravia, Czech Republic. 23,000 BCE. Fired clay, 4¼ × 1½ (11 × 4.3 cm). Moravske Museum, Brno, Czech Republic.
 Credit: © akq-images/De Agostini Picture Lib./A. Dagli Orti

still. The site of Dolní Věstonice is important because it holds evidence of a very early date (23,000 BCE) for the use of fire to make objects out of mixtures of water and soil. What makes the figures from this site in the Czech Republic and others in the region (Pavlov and Prědmosti) unusual is how they were made. But by mixing soil with water according to a very particular recipe and then placing the wet figures in a hot kiln to bake, the makers were not intending to create durable, well-fired statues. On the contrary, the recipe and firing procedure indicate that the intention was to make the figures explode in the kilns before the firing process was complete—before a "successful" figure could be produced. There are very few complete figures, but there are numerous fragments that bear the traces of explosions at high temperatures at these sites. The Dolní Věstonice fragments are records of performance and process art in their rawest and earliest forms.

Another remarkable female image, discovered in the Grotte du Pape in Brassempouy, France, is the tiny ivory head known as the **WOMAN FROM BRASSEMPOUY** (FIG. 1-9). Though the finders did not record its archaeological



1-9 WOMAN FROM BRASSEMPOUY Grotte du Pape, Brassempouy, Landes, France. Probably c. 30,000 BCE. Ivory, height 1¹/₄" (3.6 cm). Musée des Antiquités Nationales, Saint-Germain-en-Laye, France.

Credit: © akg-images/De Agostini Picture Lib./G. Dagli Orti

context, recent studies prove it to be authentic and date it as early as 30,000 BCE. The carver captured the essence of a head, or what psychologists call the memory image those generalized elements that reside in our memory of a human head. An egg shape rests on a long neck. A wide nose and strongly defined browline suggest deep-set eyes, and an engraved square patterning may be hair or a headdress. The image is an abstraction (what has come to be known as **abstract** art): the reduction of shapes and appearances to basic yet recognizable forms that are not intended to be exact replications of nature. The result in this case looks uncannily modern to contemporary viewers. Today, when such a piece is isolated in a museum case or as a book illustration we enjoy it as an aesthetic object, but we lose its original cultural context.

Cave Painting

Art in Europe entered a rich and sophisticated phase well before 40,000 years ago, when images began to be painted on the walls of caves in central and southern France and northern Spain. No one knew of the existence of prehistoric cave paintings until one day in 1879, when a young girl, exploring with her father in Altamira in northern Spain, crawled through a small opening in the ground and found herself in a chamber whose ceiling was covered with painted animals (SEE FIG. 1-13). Her father, a lawyer and amateur archaeologist, searched the rest of the cave, told authorities about the remarkable find, and published his discovery the following year. Few people believed that these amazing works could have been made by "primitive" people, and the scientific community declared the paintings a hoax. They were accepted as authentic only in 1902, after many other cave paintings, drawings, and engravings had been discovered at other places in northern Spain and in France.

TECHNIQUE OF PREHISTORIC WALL PAINTING In a dark cave, presumably working by the light of an animal-fat lamp, prehistoric artists chewed a piece of charcoal to dilute it with saliva and water. Then they blew out the mixture on the surface of a wall, using their hands as stencils. This drawing demonstrates how cave archaeologist Michel Lorblanchet and his assistant used this step-by-step process of the original makers of a cave painting at Pech-Merle (SEE FIG. 1–1) in France to create a complex design of spotted horses.

By turning himself into a human spray can, Lorblanchet produced clear lines on the rough stone surface much more easily than he could with a brush. To create the line of a horse's back, for example, with its clean upper edge and blurry lower one, he blew pigment below his hand. To capture its angular rump, he placed his hand vertically against the wall, holding it slightly curved. To produce the sharpest lines, such as those of the upper hind leg and tail,



MICHEL LORBLANCHET SIMULATING THE TECHNIQUE OF PREHISTORIC CAVE PAINTERS

he placed his hands side by side and blew between them. To create the forelegs and the hair on the horses' bellies, he fingerpainted. A hole punched in a piece of leather served as a stencil for the horses' spots. It took Lorblanchet only 32 hours to reproduce the Pech-Merle painting of spotted horses, his speed suggesting that a single artist could have created the original.

Homo sapiens sapiens artists used three painting techniques: the spraying demonstrated by Lorblanchet, drawing with fingers or blocks of ocher, and daubing with a paintbrush made of hair or moss. In some prehistoric caves, three other stages of image creation can be seen: engraved lines using flakes of flint, followed by a color wash of ocher and manganese, and a final engraving to emphasize shapes and details.

THE MEANING OF CAVE PAINTINGS What caused people to paint such dramatic imagery on the walls of caves? The idea that human beings have an inherent desire to decorate themselves and their surroundings-that an aesthetic sense is somehow innate to the human speciesfound ready acceptance in the nineteenth century. Many believed that people create art for the sheer love of beauty. Scientists now agree that human beings have an aesthetic impulse, but the effort required to accomplish the great cave paintings suggests their creators were motivated by more than simple visual pleasure. Since the discovery at Altamira, anthropologists and art historians have devised several hypotheses to explain the existence of cave art. Like the search for the meaning of prehistoric female figurines, these explanations depend on the cultural views of those who advance them.

In the early twentieth century, scholars believed that art has a social function and that aesthetics are culturally relative. They proposed that cave paintings might be products both of rites to strengthen clan bonds and of ceremonies to enhance the fertility of animals used for food. In 1903, French archaeologist Salomon Reinach suggested that cave paintings were expressions of sympathetic magic: the idea, for instance, that a picture of a reclining bison would ensure that hunters found their prey asleep. Abbé Henri Breuil took these ideas further and concluded that caves were places of worship and settings for initiation rites. During the second half of the twentieth century, scholars rejected these ideas and rooted their interpretations in rigorous scientific methods and then-current social theory. André Leroi-Gourhan and Annette Laming-Emperaire, for example, dismissed the sympathetic magic theory because statistical analysis of debris from human settlements revealed that the animals used most frequently for food were not the ones traditionally portrayed in caves.

Researchers continue to discover new cave images and to correct earlier errors of fact or interpretation. A study of the Altamira Cave in the 1980s led anthropologist Leslie G. Freeman to conclude that the artists had faithfully represented a herd of bison during the mating season. Instead of being dead, asleep, or disabled—as earlier observers had thought-the animals were dust-wallowing, common behavior during the mating season. Similar thinking has led to a more recent interpretation of cave art by archaeologist Steve Mithen. In his detailed study of the motifs of the art and its placement within caves, Mithen argued that hoofprints, patterns of animal feces, and hide colorings were recorded and used as a "text" to teach novice hunters within a group about the seasonal appearance and behavior of the animals they hunted. The fact that so much cave art is hidden deep in almost inaccessible parts of cavesindeed, the fact that it is placed within caves at all-suggested to Mithen that this knowledge was intended for a privileged group and that certain individuals or groups were excluded from acquiring that knowledge.

South African rock-art expert David Lewis-Williams has suggested a different interpretation. Using a deep comparative knowledge of art made by hunter-gatherer communities that are still in existence, Lewis-Williams argued that Upper Paleolithic cave art is best understood in terms of shamanism: the belief that certain people (shamans) can travel outside of their bodies in order to mediate between the worlds of the living and the spirits. Traveling under the ground as a spirit, particularly within caves, or conceptually within the stone walls of the cave, Upper Paleolithic shamans would have participated in ceremonies that involved hallucinations. Images conceived during this trancelike state would likely combine recognizable (the animals) and abstract (the nonrepresentational) symbols. In addition, Lewis-Williams interprets the stenciled human handprints