Music

The art of listening

JEAN FERRIS
with Larry Worster

Music

The art of listening

This page intentionally left blank

Music

The art of listening

NINTH EDITION

JEAN FERRIS

Emeritus Professor of Music at Arizona State University

with LARRY WORSTER

Metropolitan State University of Denver

Mc Graw Hill
Connect
Learn
Succeed™

The McGraw-Hill Companies

Connect Learn Succeed™

MUSIC: THE ART OF LISTENING, NINTH EDITION

This book is printed on acid-free paper.

1 2 3 4 5 6 7 8 9 0 RJE/RJE 1 0 9 8 7 6 5 4 3

ISBN 978-0-07-802517-4
MHID 0-07-802517-6

Senior Vice President, Products & Markets: *Kurt L. Strand*
Vice President, General Manager, Products & Markets: *Michael Ryan*
Vice President, Content Production & Technology Services: *Kimberly Meriwether David*
Managing Director: *William Glass*
Director: *Chris Freitag*
Brand Manager: *Laura Wilk*
Senior Director of Development: *Dawn Goundwater*
Marketing Manager: *Kelly Odom*
Content Project Manager: *Chad Michael Lange*
Buyer: *Susan K. Culbertson*
Design Manager: *Michelle D. Whitaker*
Cover/Interior Design: *Maureen McCutcheon Design*
Cover Image: © *George Coppock/Getty Images*
Content Licensing Specialist: *Shawntel Schmitt*
Photo Research: *Judy Mason*
Compositor: *MPS Limited*
Typeface: *10/12 Palatino Roman*
Printer: *R. R. Donnelley*

Library of Congress Cataloging-in-Publication Data

Ferris, Jean.
Music : the art of listening / Jean Ferris, Larry Worster. – 9th ed.
p. cm.
Includes index.
ISBN 978-0-07-802517-4 — ISBN 0-07-802517-6 (hard copy : alk. paper) 1. Music appreciation. I. Worster, Larry, 1947- II. Title.
MT90.F47 2014
781.1'7–dc23

2012039368

To the gifted young musicians in my family and yours.

This page intentionally left blank

Contents

Listening Examples

1. **Richard Strauss**: Introduction to *Also sprach Zarathustra* 1:32
2. **Piotr Ilyich Tchaikovsky**: Russian Dance (*Trepak*) from *The Nutcracker* 1:06
3. **Anonymous**: "Amazing Grace" 4:19
4. **Charles Ives**: "London Bridge Is Fallen Down," arr. Jonathan Elkus 1:06
5. **Benjamin Britten**: *The Young Person's Guide to the Orchestra* 17:23
6. **Anonymous**: Kyrie from the Mass "Cum jubilo" 2:02
7. **Hildegard of Bingen**: "Nunc aperuit nobis" 1:53
8. **Anonymous**: "Sumer is icumen in" 1:48
9. **Guillaume de Machaut**: Gloria from the *Messe de Nostre Dame* 4:31
10. **Giovanni Pierluigi da Palestrina**: Agnus Dei I from the *Missa Papae Marcelli* (Mass for Pope Marcellus) 3:58
11. **Martin Luther**: "Ein' feste Burg" (A Mighty Fortress) 3:14
12. **Louis Bourgeois**: "Old Hundred" 0:25
13. **Thomas Weelkes**: "As Vesta Was from Latmos Hill Descending" 3:12
14. **John Dowland**: *Queen Elisabeth's Galliard* 1:22
15. **Giovanni Gabrieli**: *Sonata pian'e forte* 4:17
16. **Claudio Monteverdi**: "Tu se' morta" from *L'Orfeo* 2:16
17. **Henry Purcell**: "Thy hand, Belinda" (recitative) and "When I am laid in earth" (aria) from *Dido and Aeneas* 4:04
18. **George Frideric Handel**: "Hallelujah" Chorus from *Messiah* 3:42
19. **Johann Sebastian Bach**: Cantata 140, "Wachet auf" (Sleepers Awake), I 6:08
20. **Johann Sebastian Bach**: Fugue in G minor ("Little Fugue") 4:03
21. **Antonio Vivaldi**: "Spring" Concerto from *The Four Seasons*, I 3:12
22. **Johann Sebastian Bach**: Brandenburg Concerto No. 2 in F major 11:17
23. **François Couperin**: "Le tic-toc-choc" from Ordre 18 2:45
24. **Wolfgang Amadeus Mozart**: Symphony No. 40 in G minor, K. 550, I 8:17
25. **Wolfgang Amadeus Mozart**: Concerto for Flute and Orchestra in D major, K. 314, III 5:47
26. **Franz Joseph Haydn**: String Quartet No. 66 in G major, Op. 77, No. 1, III 4:35
27. **Wolfgang Amadeus Mozart**: Selections from *The Marriage of Figaro* 5:20
28. **Wolfgang Amadeus Mozart**: "Dies irae" from the *Requiem* 2:03
29. **Ludwig van Beethoven**: Piano Sonata No. 8, Op. 13 (*Pathétique*), I 9:23
30. **Ludwig van Beethoven**: Symphony No. 5 in C minor, I 7:54
31. **Franz Schubert**: *Erlkönig* (Erlking) 4:02
32. **John Philip Sousa**: "The Stars and Stripes Forever" 3:11

33. **Hector Berlioz**: *Symphonie fantastique*, V, "Dream of a Witches' Sabbath" 9:35
34. **Niccolò Paganini**: Caprice No. 1, from *Twenty-Four Caprices for Solo Violin*, Op. 1 1:45
35. **Frédéric Chopin**: Nocturne in E-flat major, Op. 9, No. 2 3:45
36. **Louis Moreau Gottschalk**: *Le bananier* 2:48
37. **Robert Schumann "Im wunderschönen Monat Mai"** from *Dichterliebe* 1:24
38. **Stephen Foster**: "Jeanie with the Light Brown Hair" 3:17
39. **Giacomo Puccini**: "Nessun dorma" from *Turandot* 3:09
40. **Richard Wagner**: "The Ride of the Valkyries" from *Die Walküre* 5:25
41. **Arthur Sullivan**: "I Am the Very Model of a Modern Major General" from *The Pirates of Penzance* 2:57
42. **Richard Strauss**: *Till Eulenspiegels lustige Streiche* (Till Eulenspiegel's Merry Pranks) 14:20
43. **Anonymous**: Kebjar: Hudjan Mas (Golden Rain) 1:13
44. **Claude Debussy**: *La cathédrale engloutie* (The Sunken Cathedral) from Preludes, Book I 6:03
45. **Igor Stravinsky**: Excerpts from *Le sacre du printemps* (The Rite of Spring) 8:04
46. **Charles Ives**: "General Putnam's Camp" from *Three Places in New England* 5:41
47. **Henry Cowell**: *The Banshee* 2:30
48. **John Cage**: *The Perilous Night*, No. 1 2:33
49. **Pauline Oliveros**: *Sound Patterns* 4:00
50. **Krzysztof Penderecki**: *Threnody for the Victims of Hiroshima* 8:56
51. **Tod Machover**: *Flora* 4:14
52. **Béla Bartók**: Concerto for Orchestra, IV 4:17
53. **Sergei Prokofiev**: Symphony No. 1 ("Classical"), I 3:51
54. **Aaron Copland**: "Variations on a Shaker Hymn" from *Appalachian Spring Suite* 3:16
55. **William Grant Still**: *Afro-American Symphony*, III 3:23
56. **Samuel Barber**: Adagio for Strings 7:45
57. **Ellen Taaffe Zwilich**: *Concerto Grosso 1985*, I 2:41
58. **George Gershwin**: "Bess, You Is My Woman Now" from *Porgy and Bess* 4:46
59. **Philip Glass**: *Einstein on the Beach*, Act IV, Scene 3, "Spaceship" 3:56
60. **Leonard Bernstein**: "Tonight," Act I ensemble finale from *West Side Story* 3:43
61. **John Williams**: "Imperial March" from *Star Wars Suite for Orchestra* 3:02
62. **Bernard Herrmann**: "Prelude and Outer Space" and "Radar" from *The Day the Earth Stood Still* 3:49
63. **Scott Joplin**: "Maple Leaf Rag" 3:00
64. **Bessie Smith**: "Lost Your Head Blues" 2:55
65. **Lillian Hardin Armstrong**: "Hotter Than That" ("Tiger Rag") 4:00
66. **Duke Ellington**: "Mood Indigo" 3:05
67. **Charlie Parker**: "Bloomdido" 3:27
68. **Miles Davis, Gil Evans**: "Boplicity" 3:00
69. **Tan Dun**: Excerpt from "Heaven" from *Symphony 1997* 8:21

The art of listening thoughtfully

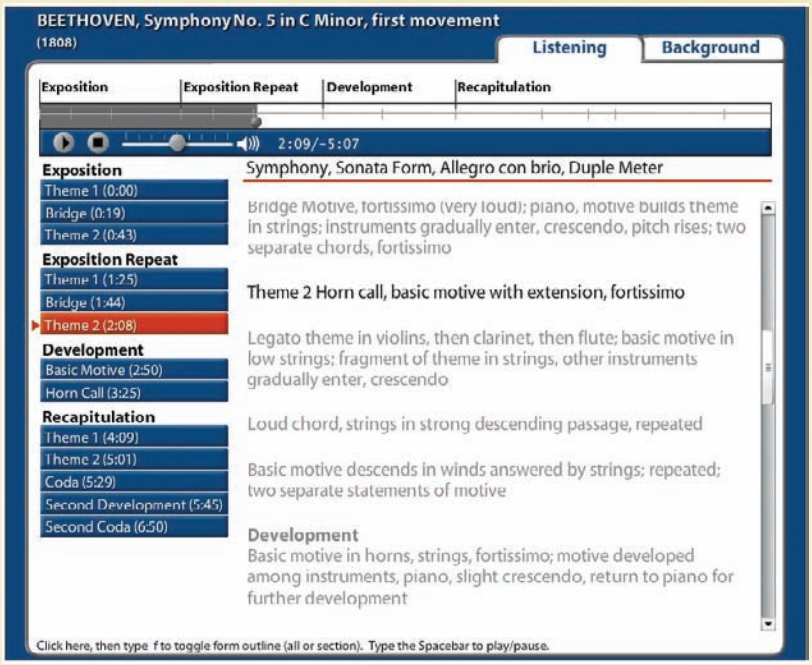
The art of listening critically

THE ART OF LISTENING

With *The Art of Listening*, students practice engaging with music critically and with an appreciative ear.

Presenting music within a broadened cultural and historical context, and never as a phenomenon isolated from the experience surrounding it, *The Art of Listening* encourages students to draw on the relationships between:

- Music and the other arts—like painting, sculpture, and dance
- Musical characteristics of different periods, including music of the distant past and modern times
- Western music and various non-Western musics and concepts



CONNECTING TO MUSIC

Learning to appreciate music is a skill. *The Art of Listening* helps students develop that skill with a variety of features and resources.

Connect Music, McGraw-Hill's powerful online course resource, provides a path to student success, making students active and thoughtful participants in their own listening experience. *Connect Music* is available in conjunction with the print text, or as a completely digital product that includes the entire eBook with all of the music and all of the assignment and assessment materials available. The print and digital versions of *Music: The Art of Listening* can be used side by side with ease—page numbers and content are completely consistent.

Listening Examples in each chapter, and found within *Connect Music*, walk students step by step through key works discussed in the book. This guided listening experience trains the listener's ear by pointing out meaningful elements, themes, and instrumentation of key works.

The program's music selections stream in two ways: in a simple audio player or in as interactive Listening Guides. In the latter, students not only listen to the

piece but have instant access to information regarding its composer, genre, and lyrics, as well as a visual representation of the piece's structure.

Instructors can access the development of students' listening skills—online and at any time—so they don't have to wait for midterm for an update on their progress.

A wide array of online listening experiences is available, including comparison and connection exercises and audio click/drags. Learning objectives link to chapter sections and, in turn, to print and online activities, so students can immediately assess their mastery of the material.

The Art of Listening Thoughtfully

The Art of Listening expands students' understanding of particular pieces and their composers, encouraging thoughtful listening.

LISTENING TO ART

The term *dissonance* is sometimes applied to the visual arts to describe tension achieved through various techniques. For example, Wassily Kandinsky spoke of applying the "principle of dissonance" to his *Composition VI* (Figure 4.3). Here "forbidden," clashing combinations of color create unresolved tensions comparable to that produced by unresolved dissonance in music.

FIGURE 4.3
Wassily Kandinsky, *Composition VI*, 1913.

- A multitude of **Listening Examples**, taken from classical music, American musical theater, and jazz, include guides to help students break down each piece.
- Brief discussions of the lives of great composers provide an engaging human interest bent and a sense of the context in which these pieces were created.
- **Encore** features offer recommendations for further listening by drawing connections to related or contrasting works.

The Art of Listening Critically

The Art of Listening encourages students to listen and think critically.

- The **Thinking Critically** feature in each chapter poses questions to students that will challenge their critical thinking skills
- New to the ninth edition, **Listening to Art** draws further comparisons between music—which students experience through listening—and a multitude of visual art forms.
- Not simply a reference on concert etiquette, Chapter 6, "Attending Performances," details the various kinds of performance and what students can expect from them.
- **Connecting to Culture**, featured at the end of selected chapters, emphasizes relationships between the musical experiences of distinct cultures. This feature is intended to broaden students' understanding of music and discourage the misconception that the familiar is necessarily better.

Whether listening through headphones or at a live performance, students will gain the skills to listen to, reflect upon, and write about music.

THE ART OF TEACHING

The Art of Music offers a practical and engaging guide for teaching beginning students of music appreciation. The complete content of *The Art of Listening* is available to instructors and students in traditional print format, as well as online with integrated and time-saving tools.

New to this edition is a Digital Music Collection—all of the audio selections discussed in the text are available on a single disc in high-quality digital form. This new format replaces that multi-disc audio CD set and makes accessing the music on computer or portable player easier than ever.

Blackboard and McGraw-Hill Higher Education have teamed up! Now, all McGraw-Hill content (text, tools, and homework) can be accessed directly from within your Blackboard course—all with a single sign-on. McGraw-Hill's content is seamlessly woven within your Blackboard course. Connect assignments within Blackboard automatically (and instantly) feed grades directly to your Blackboard grade center. No more keeping track of two grade books! Even if your institution is not currently using Blackboard, McGraw-Hill has a solution for you. Ask your sales representative for details.

Tegrity Campus is a service that makes class time available all the time by capturing audio and computer screen shots from your lectures in a searchable format for students to review when they study and complete assignments. With classroom resources available all the time, students can study more efficiently and learn more successfully.

CourseSmart, the largest provider of eTextbooks, offers students the option of receiving *The Art of Listening* as an eBook. At CourseSmart, your students can take advantage of significant savings off the cost of a print textbook, reduce their impact on the environment, and gain access to powerful Web tools for learning. CourseSmart eTextbooks can be viewed online or downloaded to a computer. Visit www.CourseSmart.com to learn more.

McGraw-Hill Create allows you to create a customized print book or eBook tailored to your course and syllabus. You can search through thousands of McGraw-Hill texts, rearrange chapters, combine material from other content sources, and include your own content or teaching notes. Create even allows you to personalize

29 LISTENING EXAMPLE

Piano Sonata No. 8, Op. 13 (*Pathétique*), first movement

COMPOSER: Ludwig van Beethoven (1770–1827)

DATE: 1798–1799

GENRE: Piano sonata

PRELUDE TO LISTENING: The forward-looking style of Beethoven can already be seen in the *Pathétique* Sonata, a piece from the end of the composer's first decade in Vienna. Although the work clearly falls into sonata-allegro form—with two themes, an exposition, development, and recapitulation—the second theme in both the exposition and recapitulation appear in unexpected keys. In addition, the slow, introspective introduction returns at the beginning of the development and again in the coda. The first theme, rather than a tuneful melody, consists of a rising set of harmonies over a droning bass that seems more rhythmically than melodically conceived. Although some of these features may not be heard by the novice listener, the use of a pounding rhythm to animate an entire movement is a characteristic that would be one of the most powerful features of Beethoven's Fifth Symphony, composed eight years later.

your book's appearance by selecting the cover and adding your name, school, and course information. To register and to get more information, go to http://create.mcgraw-hill.com.

ACKNOWLEDGMENTS

I am so grateful to all at McGraw-Hill Higher Education who made possible this new edition. Special and very fond thanks to Elizabeth Murphy, Developmental Editor, who devoted much time, intense effort, and unfailing good nature to solving problems large and small. Art Editor Judy Mason's thorough research found just the right new art. Kay Mikel's outstanding copyediting skills have my unbounded admiration and gratitude. Deborah Kopka, proofreader extraordinaire, became as well my valued friend-by-email. Thanks to Tom Laskey, of Sony BMG Music Entertainment, who has produced the accompanying disk containing digital music files in MP3 format. Thanks to Larry Worster for his fine listening guides, and my profound admiration and gratitude to him and to R. J. Miller for developing the other digital resources that so richly enhance the text. Finally, my deepest appreciation to our Project Manager, Chad Lange, who led and supported all of our efforts to accomplish this revised edition.

Overture

WE IN THE WESTERN WORLD are blessed with music in a great variety, including music to accompany drama, music for instruments and/or voice, music for dancing, music for worship, music for exercising, and music for "easy listening." Radio, television, CDs, iPods, and various Internet resources as well as live performers bring folk, popular, and art music to us from all over the world, each kind of music offering something to—and requiring something of—the listener. The demands placed on listeners and on those who perform or interpret music vary greatly from one kind of music to another.

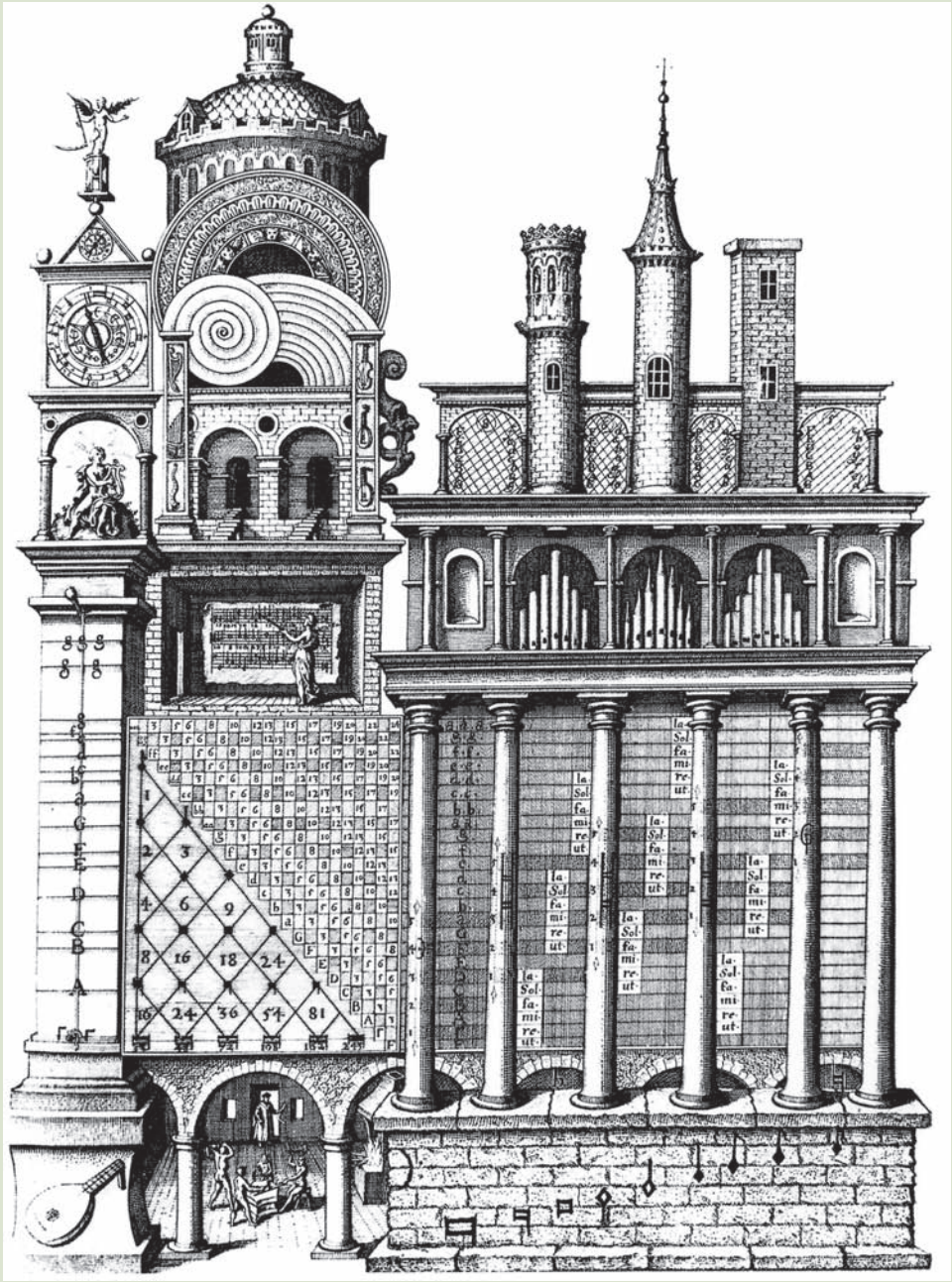
Popular music, primarily a source of entertainment and relaxation, may require little if any formal training on the part of performers or listeners. The best popular music of any age has quality and substance, and perhaps—as the reflection of a particular culture at a given time—important sociological significance as well, but the very characteristics that render music "popular" may tend to make it short-lived. Thus many popular songs soon sound dated, and their appreciation by later generations depends as much on their nostalgic as on their aesthetic value.

Functional music serves a purpose or elicits a specific response. For example, music may set the pace and synchronize movements when we exercise, dance, march, or perform any rhythmic task. The background music in a movie intensifies emotional reactions, covers awkward pauses in the film's dialogue, and provides a sense of continuity between scenes. Some religions use music to enhance the spirit of worship. Listening to pleasant, undemanding music relieves tension or lessens boredom.

Art music, on the other hand, does not necessarily serve any functional purpose but may simply express an abstract concept the composer thought worth sharing. The famous writer and art critic John Ruskin (1819–1900) defined art as "the expression of one soul talking to another," and most composers of art music (also called classical, or concert, music) have tried to communicate to their listening audience something of their experience, their personality, their mind, or indeed their soul.

Listening to classical music is itself an art, as the title of this text implies, and good listening is an active, creative experience. The prepared listener applies a fair measure of knowledge and experience as his or her part in the successful cycle of creation, performance, and appreciation of serious music. Art music challenges composer, interpreter or performer, and listener alike. The rewards for all three lie in the lasting value of great music and in the intense pleasure it evokes. A Beethoven symphony, for example, can stir the same emotions and evoke the same thrills in listeners today as it did when it was introduced two hundred years ago.

As you practice the art of listening, you may expect to experience greater pleasure from every type of music—popular and classical, old and new, Western and non-Western, religious and secular—than ever before. The highly sensuous pleasure we experience while listening to great music is our emotional reward for an intellectual effort well made.



Listening to music: Conceived from ancient times as an integral component of all the arts, music is often depicted in literary or visual terms. Robert Fludd's seventeenth-century engraving *Temple of Music*, for example, constitutes an architectural portrayal of harmonic relationships. In this highly symbolic design, Fludd used visual images including musical instruments, music notation, numbers, and scales to demonstrate fundamental principles of music.

This page intentionally left blank

Music

The art of listening

PART ONE

Basic Concepts

MUSIC IS DEFINED IN VARIOUS WAYS, depending on its role in a given culture as well as on highly subjective individual opinion. It has reasonably been suggested that music, in fact, is what anyone—here or anywhere—considers it to be. In the minds of the ancient Greeks, for example, music encompassed all the arts. Today, however, we in the Western world generally (though not exclusively) think of music as an art of organized sounds, and so our study of music history and appreciation begins with a discussion of some of the characteristics of musical sounds. High or low, loud or soft, sung or played on an instrument, musical sounds form a varied and provocative world rich in intellectual and aesthetic rewards.

Part One of this text introduces the *elements of music*—rhythm, melody, harmony, timbre—the basic materials with which composers create their music compositions. A catchy rhythm, a haunting melody, or another distinctive sound may attract attention during the performance of a piece, but listeners generally respond to the combined effects of the elements of music. Recognition of the elements of music and of the ways in which they contribute to a composition immeasurably enhances the capacity to understand, discuss, and enjoy music of every kind.

The *formal design* of a musical composition, as of any work of art, also contributes to its beauty and value, though listening to music, unlike viewing a painting or reading a poem, precludes suspending the experience in time. The listener must hear and remember the music *as it happens* in order to recognize repeated or contrasting sections when they occur. Our introductory discussion of form in music offers simple techniques for developing basic listening skills to address this challenge, unique in the world of art.

Part One concludes with a description of several types of *music performance*, for you should begin attending live performances early in this course and continue to do so throughout the term. To fully enjoy your listening experiences, live or recorded, apply your ever-expanding knowledge of musical sounds, of the elements of music, and of patterns of design and organization while listening to each piece. In this way you will become an active—indeed a creative—participant in the experience of great music.

CHAPTER 1

Sound

WHILE THE DEFINITION OF MUSIC, as we have noted, varies according to time, place, and culture, we can agree that music necessarily involves sound. We shall begin our study by considering two characteristics of sound: its highness or lowness, called the **pitch** of the sound, and its loudness or softness, called its **dynamic level.** Composers often use changes in levels of pitch and dynamics to organize musical material and to achieve expressive effects.

PITCH

The pitch of a sound depends on the rate of vibration, or **frequency,** of the sound-producing medium. If we pluck a guitar string, depress a piano key, or blow across the top of a bottle, the resulting sound is caused when something—a string on the guitar or the piano, the column of air in the bottle—vibrates. Depressing the guitar string with a finger before plucking it, or adding water to the bottle before blowing across it, changes the size of the vibrating medium, causing it to vibrate at a different rate of speed and therefore to produce a different pitch. A faster rate of vibration causes a higher pitch, and a slower rate of vibration causes a lower pitch. The term for a particular range of pitches is **register:** for example, we may say an instrument is played in its lower or upper register.

THINKING CRITICALLY ABOUT MUSIC

How would you define music, in your own words, based on your experience to date?

As a pianist sits at the piano, the keys on the left-hand side of the keyboard produce tones comparatively low in pitch. You can see when looking inside a grand piano (Figure 1.1) that the strings to the pianist's left are much longer and thicker, and therefore vibrate more slowly, than the shorter strings on the right, which produce the high tones.

FIGURE 1.1
A grand piano.

Naming Pitches

A **tone** is a *specific* pitch, produced by sound waves with a constant rate of vibration (as opposed, for example, to the sound of a gong, which includes a wide range of pitches). In Western music, we refer to specific pitches, or tones, with letter names, using the letters A through G, a system best explained by referring to a piano keyboard (Figure 1.2). The keyboard consists of a simple

pattern of white and black keys, each key representing one tone. Depressing a key causes a hammer to strike a specific set of strings inside the piano, sounding a particular tone.

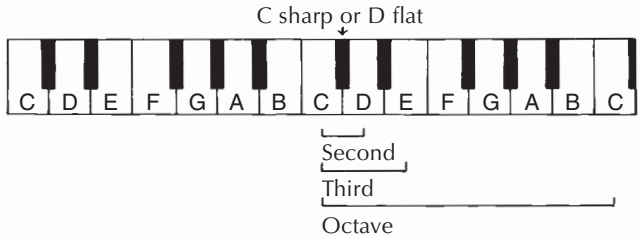


FIGURE 1.2
Portion of a piano keyboard.

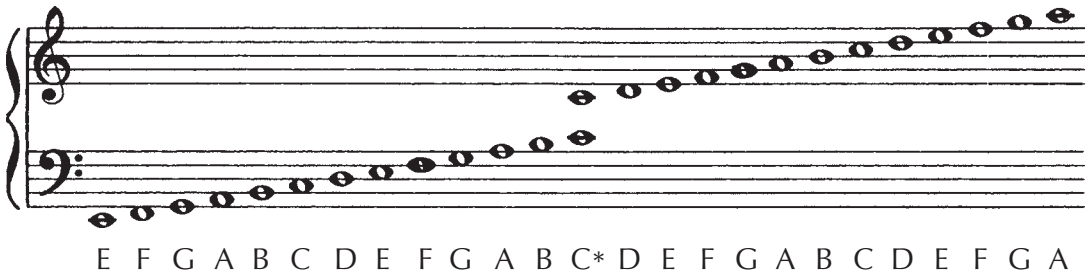
We think of the keys on a keyboard as "steps," referring to any key's nearest neighbor, up or down, as a *half step.* Each of the seven different white keys bears one of the seven letter names. The black keys have the same letter names as the white keys, but each is qualified as **sharp** (one-half step higher in pitch than the corresponding white key) or **flat** (one-half step lower in pitch than the corresponding white key). For example, the black key that falls between C and D on the keyboard (see Figure 1.2) may be called C sharp (C♯) or D flat (D♭), depending on the intention of the composer.

Notating Pitches

It is not necessary to read music in order to enjoy hearing it or to study music history and appreciation. However, a general awareness of how music is notated may be of interest.

Music is written, or notated, on a **staff** of five lines and four spaces (Figure 1.3). The staff forms a kind of ladder, with each line and each space representing a particular pitch arranged in ascending order from the bottom line to the top. A sign called a *clef,* placed at the beginning of the staff, indicates that a particular line represents a specific pitch and thus fixes the positions of all the pitches on the staff. The staff can be extended up and down by adding a number of small lines, called *ledger lines,* as seen at the beginning, middle, and end of Figure 1.3. Some pitches, such as "middle C," which lies in the middle of the piano keyboard, may be notated in either the bass (lower) or the treble (higher) clef. (Although the bass [𝄢] and treble [𝄞] clefs, shown in Figure 1.3, are most familiar to Westerners, other clefs also are used—to accommodate the particularly high or low tones of certain musical instruments, for example.)

FIGURE 1.3
Pitches notated in the bass and treble clefs.



*Several pitches, including the "middle C," may be notated in either the bass or the treble clef.

Intervals

The distances, or **intervals,** between two tones have numerical names. For example, the interval from any note (notated pitch) to its nearest neighbor, as from C to D, is called a *second* because it involves two adjacent notes. The interval from C to E is a *third,* from C to F a *fourth,* and so on.

The interval of an *eighth,* as from C to C, is called an **octave.** The two tones of an octave look alike on the keyboard (see Figure 1.2) and also sound quite similar, owing to the simple relationship of their frequencies, 2:1; that is, the higher tone is produced at twice the rate of vibration of the lower tone.

DYNAMICS

For a long time in the history of music, composers did not indicate the level of volume at which their music should be performed. The loudness or softness of music depended on such circumstances as the number of performers, the kinds of voices or instruments involved, and the acoustic characteristics of the performance site. (Acoustics, the science of sound, has to do with the qualities of a performance space that affect the way in which music heard in that space is perceived.)

THINKING CRITICALLY ABOUT PITCH AND DYNAMICS
How do our voices change in terms of pitch and dynamics when we are excited? Angry? Frightened? Calm? Happy? Sad? Contented?

Beginning in the seventeenth century, composers began indicating degrees of loudness or softness in their music. They used the terms of Italian musicians, who were widely revered and imitated by Western composers at that time. These and other Italian terms came into the general music vocabulary, and they have been widely accepted ever since. Table 1.1 includes the terms most commonly used, their abbreviations as they usually occur in written music, and their English meanings. You will probably find these terms in concert programs, on vinyl record and CD liner notes, and in critical concert or recording reviews.

Note the differences between terms indicating a level of volume, such as **forte** (loud) and **piano** (soft), and terms indicating a *change* of dynamic level, such as **crescendo** (becoming louder) and **decrescendo** or **diminuendo** (both of which mean becoming softer). Changes in dynamic level during the performance of music may be achieved in two ways:

creh-shen′-doh
deh-creh-shen′-doh
dee′-mih-nyu-en′-doh

1. The instruments or voices may simply play or sing more loudly or more softly.
2. A number of instruments or voices may be added or taken away.

THINKING CRITICALLY ABOUT CHANGES IN PITCH AND DYNAMICS
Can you suggest any examples of popular or concert music that evoke emotional responses by changes in pitch levels, dynamics, or both?

Composers often indicate changes in pitch and in dynamic levels for expressive, dramatic, or emotional purposes. This is the case in Listening Example 1, the short but highly effective introductory section to *Also sprach Zarathustra* by Richard Strauss (a composer discussed in Chapter 25).

TABLE 1.1 DYNAMICS

Italian Term	Levels of Volume Abbreviation	English Meaning
pianissimo	pp	very soft
piano	p	soft
mezzopiano	mp	moderately soft
mezzoforte	mf	moderately loud
forte	f	loud
fortissimo	ff	very loud
	Processes of Changing Levels	
crescendo		becoming louder
decrescendo		becoming softer
diminuendo		becoming softer

1 LISTENING EXAMPLE

Introduction to *Also sprach Zarathustra*

COMPOSER: Richard Strauss (1864–1949)

DATE: 1896

CONCEPT ILLUSTRATED: Pitch and dynamics

PRELUDE TO LISTENING: In this listening example, Strauss used changes in pitch and dynamic levels to dramatize a story; he intended this piece to depict the development of the superman envisioned by the philosopher Friedrich Nietzsche. The dramatic crescendo and the corresponding rise in pitch level suggest the great heights of power to which the imagined hero might rise.

WHAT YOU WILL HEAR: An orchestra, trumpets, orchestral drums (timpani), rising levels of pitch and dynamics.

0:00	**INTRODUCTION**	The introduction consists of a single low pitch that starts very softly (pianissimo).
0:14	**THEME**	Introduction of the theme, or main melody, which represents "nature." The theme, played by the trumpets, begins very softly (pianissimo) and at a relatively low level of pitch. The orchestra and orchestral drums complete this melody, growing louder (crescendoing) as they do so.
0:31	**THEME, SECOND STATEMENT**	The second statement of the theme begins slightly louder (mezzoforte) and ends at a slightly higher pitch level than the first statement.
0:46	**THEME, THIRD STATEMENT**	The third statement begins at a loud dynamic level (forte). The music crescendoes still further by increasing the number of instruments, while rising to a climactic pitch.
0:54	**CONTINUATION OF THEME MELODY**	The entire orchestra completes the melody at the top of its dynamic range (fortissimo), complete with cymbal crashes that accentuate points of arrival.

ENCORE

Boléro, by Maurice Ravel, and the Prelude to *Lohengrin*, by Richard Wagner, also derive much of their emotional impact through changes in dynamic level. *Boléro* begins quietly and builds to an exciting climax as more and more instruments join the ensemble, *and* as the instrumentalists play more loudly. Wagner's Prelude to his famous opera, concerning a mysterious Medieval knight, suggests the descent to earth of a sacred object—the Holy Grail—and its subsequent return to heaven. The music begins very quietly at a high level of pitch, becoming lower in pitch and louder in volume as the Grail descends. After achieving a glorious climax, dramatically punctuated with brass and percussion, the Grail, and the music, recede into the high and ethereal distance. Both of these famous pieces are often performed and are widely available online.

SUMMARY

Sound constitutes the raw material of which music is composed. One characteristic of musical sound is its pitch, which is determined by the rate of the sound waves' vibration. A constant rate of vibration produces a specific pitch called a tone. Tones, represented by letter names, are notated on a staff, preceded by a clef sign indicating which tone is represented by each line and space.

Expressive effects often are achieved by changes in the dynamic level (loudness or softness) of musical sounds.

TERMS TO REVIEW

pitch
dynamic level
frequency
register
tone
sharp
flat
staff
interval
octave
forte
piano
crescendo
decrescendo, diminuendo

CHAPTER

2 Rhythm

RHYTHM CONCERNS THE ARRANGEMENT OF LONG AND SHORT SOUNDS in music. Since music is never static but continually moves in time, it always has **rhythm**—the earliest and most basic of the building materials or **elements of music.** We somehow feel rhythm "inside," and respond to it both physically and emotionally.

We think of rhythm as the "pulse" of music and describe the basic rhythmic pulse of a musical piece as the **beat.** Musical sounds, like those of speech, vary in intensity as well as duration: some beats are strong and others weak. Strong beats, or **accents,** may be achieved or implied in at least three ways: by *stress* (striking a note harder or singing or playing it louder than adjacent tones), by *duration* (holding a tone longer than those around it), or by *position* (placing a tone significantly higher or lower than others).

TEMPO

Written music indicates the duration of a tone only in relative terms—how long it is to be sustained in relation to other tones in the piece. For an example from everyday life, if we say that something is "half-size," we can know its exact size only if we know the full size it refers to. Similarly, in music, a *half note* (𝅗𝅥) is held twice as long as a *quarter note* (♩); but the specific duration of a half note or a quarter note depends on the rate of speed, or **tempo,** at which a piece is performed. The cessation of musical sound is as significant as sounded tones. This too is notated, by the use of signs called **rests** (Table 2.1).

TABLE 2.1 RHYTHMIC NOTATION

This table assumes that the quarter note equals one beat. Any other note may equal one beat instead, and the other note values then change proportionately.

Notated Symbol	Name	Rest	Number of Beats per Note	Number of Notes Equal to Four Beats
𝅝	whole note	𝄻	4	1
𝅗𝅥	half note	𝄼	2	2
♩	quarter note	𝄽	1	4
♪	eighth note	𝄾	½	8
𝅘𝅥𝅯	sixteenth note	𝄿	¼	16

The nineteenth-century invention of the *metronome,* an instrument that may be set

to sound regular beats within a wide range of speeds from very fast to very slow, made it possible for composers to indicate tempo as exactly as they notate pitch. Many compositions also include verbal indications, such as "fast," or "very slow," often expressed in the Italian terms shown in Table 2.2. Metronome markings primarily interest musicians, whereas verbal descriptions of tempo usually appear for the audience's information in printed concert programs, and in liner notes accompanying CDs. For that reason, familiarity with the most common tempo terms is useful to the interested listener.

TABLE 2.2 SOME COMMON TEMPO INDICATIONS

Italian Term	English Meaning
largo	slow; "broad"
adagio	slow; "at ease"
andante	moderately slow; "walking" tempo
moderato	moderate
allegro	fast; cheerful
presto	very fast
vivace	lively
molto	very (allegro molto = very fast)
non troppo	not too much (allegro non troppo = not too fast)
con brio	with spirit

METER

The rhythm of much early vocal music, from the Medieval and Renaissance periods, for example, is based on the rhythm of the text as it would be spoken, with strong and weak beats occurring in irregular order. In much music of the Western world, however, rhythm is organized into a metrical pattern, its **meter** defined by a regularly recurring arrangement of strong and weak beats.

Metered music is notated in units called **measures** or **bars,** each containing a certain number of beats. It is the custom in most metered Western music to accent the first beat of each measure, as indicated by the symbol > in Figures 2.1a, b, and c. When there are more than three beats per measure, there is a secondary, or weaker, accent (⌣) on another beat, as in Figure 2.1c. (Of course, composers may choose *not* to accent the first beat of a measure, or to place accents in unexpected places, for particular effects they wish to achieve.)

A musical piece may begin on the first beat, or on or between any other beats of a measure, and the duration of a tone may be worth more or less than a beat. For example, if you tap the beats of "America the Beautiful" as you sing the first

THINKING CRITICALLY ABOUT METER

Can you suggest functions of everyday life that involve measured rhythm? (Two examples are walking and breathing.) Besides talking, which of our everyday experiences involve nonmeasured rhythm?

> = Stress, or accent
⌣ = Secondary accent

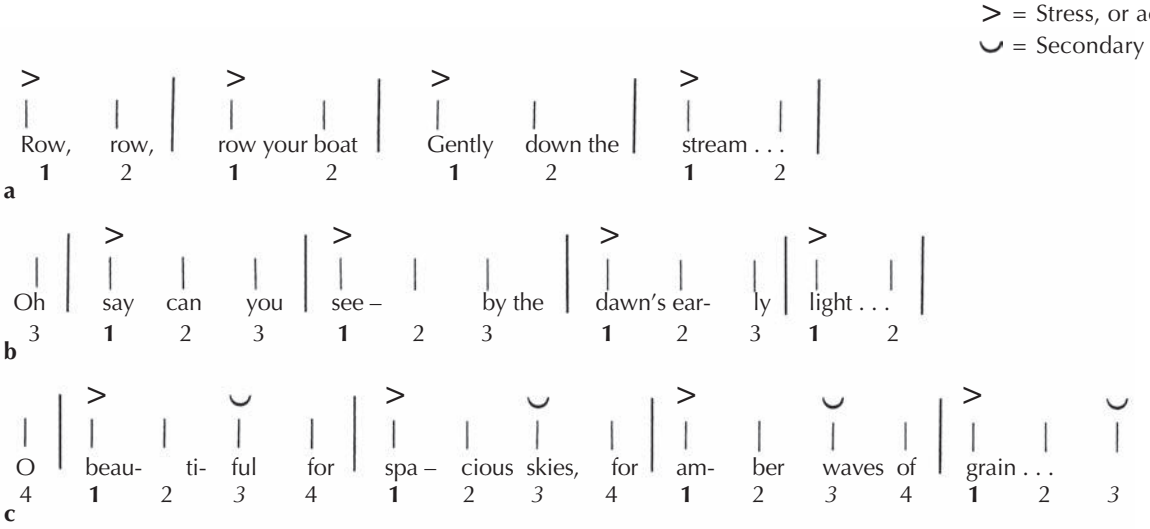


FIGURE 2.1
(a) Duple meter, two beats per measure. (b) Triple meter, three beats per measure. (c) Quadruple meter, four beats per measure.

LISTENING TO ART

Visual artists create "rhythm" in their paintings with *repetition*—of brush strokes, colors, lines, objects, and so on—giving their visual representations a stimulating flow and a sense of balance. As we look at Jackson Pollock's *Number 1, 1948* (Figure 27.7), we can allow our eyes to dance across the painting, following the rhythmic actions Pollock physically performed as he splashed and dripped colors onto his canvas. In another example, Van Gogh, in *The Starry Night* (Figure 25.7), let the strokes of his paintbrush show, enhancing the rhythmic effect of his swirling constellations, twisted plants, and rolling hills. Nothing in the painting is still; even the houses seem unsettled on their foundations.

phrase, you will notice that the second syllable of "beautiful" and the second syllable of "spacious" come between taps or beats, and that the word "grain" is held for three beats.

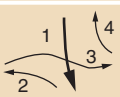
The common or regular meters, or measured beat patterns, are **duple** (two beats to the measure, Figure 2.1a), **triple** (three beats to the measure, Figure 2.1b), and **quadruple** (four beats to the measure, Figure 2.1c). (When you review Listening Example 1, notice that it is in quadruple meter.) A famous piece in duple meter is the Russian Dance (*Trepak,* Listening Example 2) from Tchaikovsky's popular ballet *The Nutcracker.*

Conducting Patterns

The conductor of a performing group, or *ensemble,* such as a chorus, band, or orchestra, bears many responsibilities and has ultimate control over a performance. Besides directing entrances and cutoffs and establishing tempos, the conductor indicates accents, crescendo and decrescendo, and many subtle changes in musical expression.

Because the conductor faces the performing ensemble, members of the audience may not see significant changes in the conductor's facial expression, for example, replete with meaning for the performing musicians. However, the conductor's beat patterns are clearly visible, and following them adds a dimension of interest and understanding to the concert experience. Following standard conducting patterns, such as those of the regular meters shown in Table 2.3, the conductor indicates the first beat of each measure, normally the strongest, by bringing the arm down; thus, the first beat of a measure is called the **downbeat.** The conductor indicates the last beat of a measure, usually the weakest, by raising the arm in an **upbeat,** bringing it into position to give the downbeat of the next measure. While professional conductors often modify these basic patterns, they must remain recognizable to the performers following the conductor's direction and thus to experienced concertgoers as well.

TABLE 2.3 STANDARD CONDUCTING PATTERNS

Meter	Accents	Conducting Pattern
Duple: two beats per measure ("Row, row, row your boat")	STRONG-weak	
Triple: three beats per measure ("My country, 'tis of thee")	STRONG-weak-weak	
Quadruple: four beats per measure ("Yankee Doodle")	STRONG-weak-*strong*-weak	

Russian Dance (*Trepak*) from *The Nutcracker*

LISTENING EXAMPLE 2

COMPOSER: Piotr Ilyich Tchaikovsky (1840–1893)

DATE: 1892

CONCEPT ILLUSTRATED: Meter

PRELUDE TO LISTENING: *The Nutcracker* ballet by Tchaikovsky is beloved by children and adults alike for its colorful sets, stirring dances, and happy Christmas story. It is filled with dances of various character, tempo, meter, and mood. The composer incorporated many Russian-influenced pieces into the ballet, and the Russian Dance, or *Trepak*, has become one of the most popular of them. The *trepak* traditionally was danced by Cossacks, an elite corps of horsemen in czarist Russia. A fast tempo, driving rhythm, and strong accents characterize the lusty, vigorous dance.

WHAT YOU WILL HEAR: Molto vivace tempo, duple meter, a variety of dynamic levels, crescendo, accelerando (a gradual increase in tempo).

0:00	**A SECTION**	A robust melodic pattern in duple meter brimming with irrepressible good nature begins the dance. The melodic pattern is composed of four phrases each consisting of four measures. This melody will dominate the miniature piece.
0:12	**A SECTION**	The melody is repeated, with a few added instruments, including, most notably, the tambourine, which adds a Russian flavor to the sound.
0:24	**B SECTION**	The middle section has a different melody, again with 4 four-measure phrases. Two additional four-measure phrases occur at the end of this section. The melody is less strongly accented, and slightly quieter in mood. The tambourine is absent until the end.
0:42	**A SECTION**	The melody from the A section returns, accompanied by the vigorously shaken tambourine.
0:54	**ENDING SECTION**	The final section is twelve measures long and features a crescendo and accelerando. The volume and tempo rise from here to the sudden and exciting end.

ENCORE

Another piece achieving much of its impact from its strong rhythmic pattern is John Philip Sousa's famous march "The Stars and Stripes Forever" (Listening Example 32). A march is in duple meter (one beat for each foot), making it easy to stride along in time with other people. The Kyrie from the Mass "Cum jubilo" (Listening Example 6), on the other hand, is not metered. Rather, the text flows freely, in no metrical pattern, making it impossible to tap along as we nearly *must* with Sousa's march.

SUMMARY

Rhythm, which organizes time in music, may be free and flexible, based upon the inflections of a text, or organized into metered patterns. In metered music, each measure contains a pattern of strong and weak beats, the strongest accent normally occurring on the first beat of the measure. However, composers may vary this pattern at will.

Metronome markings, indicating the number of beats per minute, and/or verbal tempo indications, often expressed in Italian terms, give the speed at which a piece should be performed. Using standardized conducting patterns, a conductor controls the tempo of an ensemble performance, as well as the metrical patterns, various changes in expression, and any unusual accents.

TERMS TO REVIEW

rhythm
elements of music
beat
accent
tempo
rest
meter
measure (bar)
duple meter
triple meter
quadruple meter
downbeat
upbeat

CONNECTING TO CULTURE

Rhythm in the Music of Africa and India

Rhythm is variously conceived and practiced in the music of cultures around the world. In many parts of Africa, for example, rhythm is the dominant element of music. Drums exist throughout the great continent of Africa in virtually every conceivable form, and many pieces are performed on drums only. African dances, involving rhythms of great complexity, may be accompanied by drums as well. Much African music involves the simultaneous occurrence of several different rhythms, with claps or stamps (accents) falling between the beats of the songs they accompany. Whereas Western musicians find it difficult to perform a count of four in one hand or instrument against three in another, musicians from many African cultures readily produce combinations of several complex rhythms, both challenging and stimulating to Western ears.

The rhythm of music in India is often based on a recurring arrangement of beat patterns called *tāla*, each having a certain number of beats arranged in groups. A tāla of ten beats, for example, might be performed in the pattern 2 + 3 + 2 + 3, or 3 + 2 + 3 + 2. Each group of beats begins with an accent, but the first beat of a tāla—the most emphatic—carries very important musical and aesthetic significance, a concept not relevant to Western music. Tempo is a relative rather than an absolute concept in India: The smallest interval of duration is said to be the time it takes "to pierce with a pin one hundred lotus leaves placed one above the other."

The Web offers many opportunities to experience the music of Africa and India.

CHAPTER 3

Melody

A MELODY IS A SUCCESSION OF TONES LOGICALLY CONCEIVED to make musical sense. Just as words, varied in sound and meaning, are arranged in a particular order to form a sentence, the tones of melodies, varying in pitch and duration, must be organized in order to be meaningful. Western music lovers particularly listen for **melody**, responding to its sensuous appeal and its indefinable power to stir the emotions. Simple folk tunes and popular tunes lighten our cares, and many of us find our lives immeasurably enriched by appreciation for the great melodies of the world.

As Figure 3.1 indicates, a written melody forms a linear pattern on the music staff. We may trace a melody's distinctive shape, or contour, by drawing a line from note to note; in fact, we think of melody as horizontal or linear and speak of a "melodic line." Melodies such as "Yankee Doodle" (Figure 3.1a), whose tones are close to one another on the staff, form a smooth, or stepwise, contour, whereas wide skips between the tones in melodies such as "The Star Spangled Banner" (Figure 3.1b) yield a melodic contour more angular, or disjunct.

A melody, again like a sentence, consists of one or more **phrases.** Melodic phrases are punctuated by stopping points, called **cadences,** which—like commas, semicolons, and periods—indicate varying degrees of pause or finality. The melody of "Row, Row, Row Your Boat," for example (Figure 3.2a), consists of two unlike phrases (*a* and *b*), the first generally ascending and the second generally descending in pitch. (You can hear the melodies in Figures 3.1 and 3.2 on connect MUSIC.) For the chorus of "Jingle Bells" (Figure 3.2b), which has

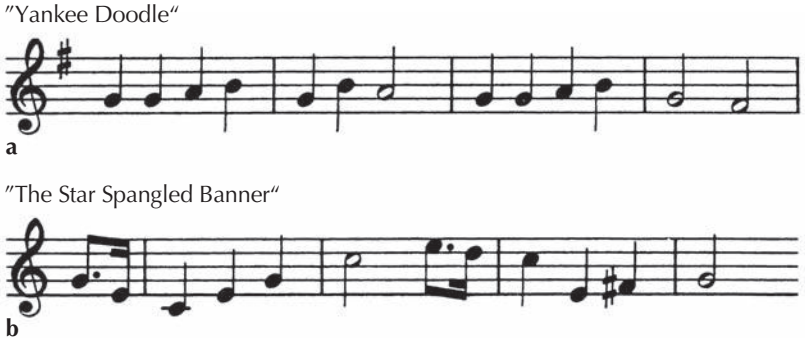


FIGURE 3.1
(a) Smooth (conjunct) melody line, with tones close to each other. (b) Disjunct melody line, with tones widely separated from each other.

FIGURE 3.2
Three ways of setting simple texts to music.

a Row, row, row your boat gently down the stream.

b Merrily, merrily, merrily, merrily, life is but a dream.

a (*a b*)

a Jingle bells, jingle bells, jingle all the way.

b Oh what fun it is to ride in a one-horse open sleigh.

a Jingle bells, jingle bells, jingle all the way.

b′ Oh what fun it is to ride in a one-horse open sleigh.

b (*a b a b′*)

a Deck the halls with boughs of holly, fa la la la la la la la la

a 'Tis the season to be jolly, fa la la la la la la la la

b Don we now our gay apparel, fa la la la la la la la la

a′ Troll the ancient yuletide carol, fa la la la la la la la la

c (*a a b a′*)

four lines of text, the first phrase is repeated for the third line of text, and the second phrase is altered for the fourth line, in the order *a b a b′*. (The prime mark after *b* indicates that the phrase has been slightly altered.) The melodic phrases of "Deck the Halls" (Figure 3.2c) occur in the order *a a b a′*. Perhaps you can think of other simple melodies and identify their phrase patterns using letters of the alphabet in this manner.

The second phrase of "Three Blind Mice," a repetition of the first melodic phrase at a higher level of pitch, is an example of melodic **sequence,** a readily identified technique encountered in all kinds of music. Consider the four-note pattern that begins Beethoven's Symphony no. 5 (*da-da-da-DUM;* Figure 3.3), which then is repeated at a lower pitch level. Another example is found in "America": the phrase "Land where my fathers died" is succeeded by "Land of the pilgrim's pride," again at a lower level of pitch. The opening phrases of Tchaikovsky's *Trepak* (Listening Example 2) also illustrate melodic sequence. You will hear numerous examples of this simple means of giving both variety and symmetry to music in every kind of song and instrumental music you enjoy.

FIGURE 3.3
Motivic principal theme of Beethoven's Symphony no. 5.

MELODIC TYPES

Although all melodies share certain characteristics, each is distinguished by its particular rhythmic patterns, phrase structure, contour, and other qualities, which combine to form a wide variety of melodic types. For example, we sometimes refer to a melody that seems complete in itself, and is easily remembered and sung, as a **tune.** Folk and popular songs are generally tuneful, as are some famous melodies from great symphonies, operas, and other serious works. A tuneful melody may consist of any number of phrases, and its contour may be either smooth or disjunct. The simple melodies of the songs included in Figure 3.2 may be called tunes.

A **theme** is a melody, tuneful or not, that recurs throughout a piece, often in altered versions. It is of some length, perhaps consisting of several phrases. Consider how the musical theme of the movie *Star Wars* is changed to suit the moods or situations of the film. The main melody of Strauss's *Also sprach Zarathustra* (Listening Example 1) is an example of a theme. (Other famous musical themes that may be heard on YouTube include the first movement of Tchaikovsky's Piano Concerto no. 1 in B-flat major, and "Morning" from Edvard Grieg's *Peer Gynt* Suite.)

A **motive,** or **motivic melody,** is a very short melodic phrase that sounds fragmentary or incomplete in itself but is suitable for many kinds of variation and development. *Trepak* (Listening Example 2) begins with a motivic melody. Most famous is the four-note motive beginning Beethoven's Symphony no. 5 (see Figure 3.3). These four tones hardly constitute a tune, and they seem too fragmentary to be called a theme; yet Beethoven found in them the rich source of much of the melodic (and rhythmic) material of this famous symphony. (Benjamin Britten's *The Young Person's Guide to the Orchestra,* Listening Example 5, begins with variations on a *theme* and concludes with a section based on a bustling *motivic* figure.)

A **lyrical melody,** longer than a motive, is often songlike in character. In a composition of some length, a lyrical melody is usually repeated, with or without variation, rather than developed in the intellectual manner of a motive. Some lyrical melodies are tuneful, whereas others—such as in Samuel Barber's lovely Adagio for Strings (Listening Example 56)—are too long and complex to be considered tunes. All of these terms, as you see, are somewhat subjective.

THINKING CRITICALLY ABOUT MELODY

Using terms and concepts discussed in Chapters 1–3, compare a melody you like (perhaps of a popular song) with one you don't care for. How do they differ (in rhythm, for example, or in melodic type or some other characteristic you can identify)? What do you find pleasing or displeasing in the melodies you compare, and why?

SCALES

A melody is built on tones selected from an ascending or descending pattern of tones, within the range of an octave, called a **scale.** The word "scale" is derived from the Italian word for staircase, and a scale, like a staircase, is a series of steps. In Western music, as noted in Chapter 1, the steps correspond to the keys of a keyboard, a *half step* being the distance from any key on the keyboard to its nearest neighbor (white or black, up or down), and a *whole step* being the distance of two half steps (Figure 3.4). The number of possible scale patterns, defined according to the number and pattern of the half steps, whole steps, or both, is virtually unlimited.

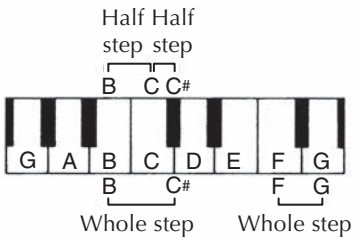
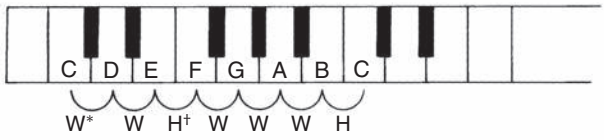


FIGURE 3.4
Keyboard showing half steps and whole steps.

Major and Minor Scales

The scales most commonly used in Western music—the major and minor scales—each contain five whole and two half steps, but the order in which the steps are arranged differs significantly, so that the major and minor scales sound quite different from each other.

The ascending pattern of steps in the **major scale,** probably the most familiar in Western culture, is *whole, whole, half, whole, whole, whole, half* (Figure 3.5). The tones of most melodies do not occur in the same order as the scale on which they are based, but "Joy to the World" begins with a descending major scale, and "Do, Re, Mi" from *The Sound of Music* describes the ascending version of that scale. (The syllables



*Whole steps †Half steps

FIGURE 3.5
The white notes of the octave from C to C on the keyboard correspond to the pattern of the major scale.

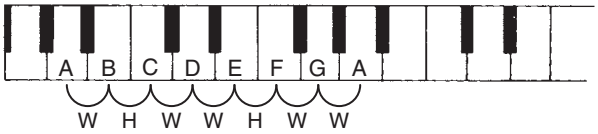


FIGURE 3.6
The white notes of the octave from A to A on the keyboard correspond to the pattern of the minor scale.

do, re, mi, fa, sol, la, and *ti* heard in that song correspond to the seven scale tones.)

The ascending **minor scale** pattern of steps is as follows: *whole, half, whole, whole, half, whole, whole* (Figure 3.6). The Civil War song "When Johnny Comes Marching Home Again" is based on the minor scale, as is the first movement of Beethoven's Symphony no. 5 (see Figure 3.3).

The most significant difference between the major and minor scales is the third step, which is a whole step in the major scale and a half step in the minor scale. The words "Johnny comes marching home" in the first phrase of that song are sung to the first three pitches of the minor scale; the words "Doe, a deer" from the song "Do, Re, Mi" are sung to the first three pitches of the major scale. Try singing the word "home" (from "Johnny") a half step higher, or the word "deer" (from "Do, Re, Mi") a half step lower, to hear how much the particular scale affects the sound of the music. (You can hear the major and minor scales on connect MUSIC.)

Tonic Note

The first and last note of either the major or the minor scale is called the **tonic.** Thus C is the tonic of the major or minor scale that begins and ends on C. In a composition based on the major or minor scale, the tonic usually is heard more often than any other note, and as you play or sing up or down either scale, you will feel a kind of magnetic pull to the tonic. For this reason, major and minor melodies, like the scales they are based on, sound incomplete until the tonic note is sounded. To illustrate this, try singing the last phrase of "Row, Row, Row Your Boat," omitting the last note.

The tonic on which a composition is based is also the name of the **key** in which the piece is composed. In other words, a piece based on the C-major scale is said to be in the key of C major. (Although you will not need detailed knowledge of such technicalities, this brief explanation may demystify such terms when you see them on a concert program or on a recording of classical music, for example.)

Chromatic Scale

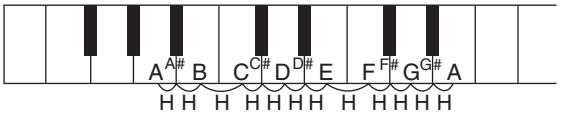


FIGURE 3.7
The chromatic scale consists of twelve half steps.

While the major and minor scales are most familiar to Western ears, much music, popular and classical, is based on other scales. The **chromatic scale** (Figure 3.7), composed entirely of half steps, often achieves a poignant emotional effect, as in Listening Example 31 (Schubert's "Erlkönig").

Whole-Tone Scale

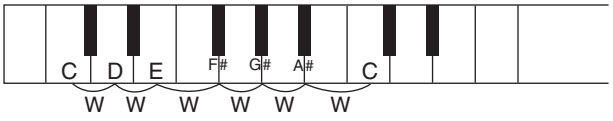


FIGURE 3.8
The whole-tone scale consists of six whole steps.

The **whole-tone scale** divides the octave into six consecutive whole steps (Figure 3.8). The absence of half steps, whose proximity to the next tone implies a leading or leaning toward it, gives whole-tone music a quality of endlessness, which composers often use to achieve a dreamy, ethereal effect. The French composer Claude Debussy, whose music we will study in Chapter 25, often used the whole-tone scale to achieve vague and dreamy effects in his music. Debussy's piano piece "Voiles," which may be heard on YouTube, is a good example of music based on the whole-tone scale.

Pentatonic Scale

Although any five-note pattern within the range of an octave may be called a **pentatonic scale,** the particular pattern formed by playing up or down the five black notes on a keyboard is a very popular scale on which many simple melodies are based (Figure 3.9). The "gaps" in these melodies, due to the step-and-a-half between some tones, seem to lie comfortably in our voices and are characteristic of many folk tunes and children's songs. "Merrily We Roll Along," "Nobody Knows de Trouble I've Seen," "Oh! Susanna," and "Old Folks at Home" are among the innumerable tunes that may be played entirely or for the most part using only the black notes on a keyboard. "Amazing Grace" (Listening Example 3) is a particularly beautiful pentatonic melody. "The Sunken Cathedral" by Debussy, Listening Example 44, also makes extensive use of this scale.

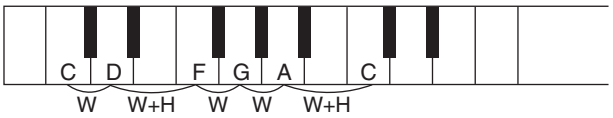


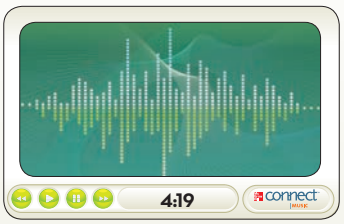
FIGURE 3.9
This pentatonic scale may be played, starting a half step higher, on black keys only.

THINKING CRITICALLY ABOUT *DIFFICULT* AND *EASY* MELODIES
Why are some melodies, including "Amazing Grace," easy to memorize, and others (like John Cage's *The Perilous Night,* no. 1, Listening Example 48) difficult to remember and reproduce?

Just as it is not necessary to count beats to enjoy rhythm in music, neither must you necessarily analyze the scale on which a melody is based. Rather, as you expand your awareness of the materials of which music is made, you will probably find yourself noticing, with less effort as your experience increases, rhythmic, melodic, and other effects that enrich your pleasure in listening.

"Amazing Grace"

LISTENING EXAMPLE 3



COMPOSER: Anonymous

DATE: 1748

CONCEPT ILLUSTRATED: Pentatonic melody

PRELUDE TO LISTENING: The words to the folk hymn "Amazing Grace" were written by John Newton (1725–1807), an English evangelist overwhelmed with remorse for his earlier life as a slave trader. The song promises God's forgiveness, even for such a "wretch" as he. The haunting melody, most likely of Scottish or Irish origin, uses only the notes of the pentatonic scale, seemingly equally appropriate for expressing grief or joy. The song is frequently heard today at weddings and at funerals as well. It has become an extremely popular hymn in African American church services. The performer is Judy Collins, a folksinger who rose to popularity in the 1960s and who remains well known and well loved today.

WHAT YOU WILL HEAR: Memorable tune—a pentatonic melody—unaccompanied and accompanied, triple meter, slow tempo, cadences.

0:00	**VERSE I**	The melody of "Amazing Grace" consists of 4 four-measure phrases in triple meter. The nature of the pentatonic scale used for its construction creates a naturally disjunct melody. Amazing Grace, how sweet the sound That saved a wretch like me. I once was lost, but now I'm found, Was blind, but now I see.

0:45	**VERSE II**	The second verse, like the first verse, is sung without accompaniment. Through many dangers, toils, and snares, We have already come. 'Twas grace that brought us safe thus far, And grace will lead us home.
1:26	**VERSE I**	The first verse is repeated with a sparse accompaniment provided by a harp.
2:12	**VERSE II**	The harp accompaniment becomes more active in the third verse, creating a fuller texture. 'Twas grace that taught my heart to fear And grace my fears relieved. How precious did that grace appear The hour I first believed.
2:50	**VERSE I**	The first verse is repeated. Another accompanying instrument, the guitar, is added.
3:26	**VERSE I**	The final repetition of the first verse closes with the singer altering the melody to close on a higher pitch.

ENCORE

Many simple and familiar pentatonic tunes may be played, entirely or for the most part, on the (five) black notes on a keyboard instrument. If you have any experience playing such an instrument, you might try to play "Merrily We Roll Along," "Nobody Knows de Trouble I've Seen," "Oh! Susanna," and "Old Folks at Home" using the black notes only.

"Amazing Grace" and these simple songs illustrate *pentatonic* melody, whereas three Encore examples from opera use *chromatic* melodies with strong emotional effect. In "My heart opens to your voice" from *Samson et Dalila*, Saint-Saëns set Delilah's fervent plea to Samson—"Ah! Answer my tenderness, fill me with ecstasy!"—to a highly chromatic, and very beautiful, descending chromatic melody. In the Prelude to *Tristan und Isolde* and in "Song to the Evening Star" from *Tannhäuser*, Richard Wagner used chromaticism to heighten emotional tension.

The French composer Claude Debussy, whose music we study in Chapter 25, sometimes used a pentatonic scale, as in his piano piece The Sunken Cathedral, (Listening Example 44). More often, Debussy used the *whole-tone* scale to achieve vague and dreamy effects, as in "Voiles," in which whole-tone scales depict a languorous scene of sails on the water on a calm day. And in Debussy's orchestral piece *Prelude to "The Afternoon of a Faun,"* subtle timbres, a chromatic melodic figure, and occasional whole-tone passages describe the sleepy musings of a mythical creature (the half-man, half-goat faun) indulging in pleasant dreams or visions—we can't know which. Both whole-tone and chromatic scales lend themselves to the representation of vague, undefined, subtle effects. (These well-known pieces by Debussy may be heard at online sites.)

SUMMARY

The meaningful succession of pitches we call "melody" provides the linear aspect of music. Melodies have distinctive outlines or contours, which may be conjunct (stepwise) or disjunct (with wide skips between tones). Tuneful melodies are easy to recognize and to sing. Fragmentary or motivic melodies offer rich potential for development. Lyrical melodies are songlike and seem relatively complete in themselves. A theme is a melody that recurs, in the same form or in altered form, throughout a piece or a section of a piece of music. The scale on which a melody is based affects the emotional as well as the aesthetic character of the music.

TERMS TO REVIEW

melody
phrase
cadence
sequence
tune
theme
motive, motivic melody
lyrical melody
scale
major scale
minor scale
tonic
key
chromatic scale
whole-tone scale
pentatonic scale.

CONNECTING TO CULTURE

Melody in China and in India

Western listeners are accustomed to hearing music based on the major and minor scales, and sometimes the other scales introduced in this chapter. But many cultures base their music on entirely different scale patterns composed of tones we cannot reproduce on a keyboard, restricted as it is to half steps as the smallest interval. Microtones (lying between the tones of a half step) color the sound and intervals and scales of seemingly unlimited variety and form the melodic basis of much of the world's music.

According to Chinese legend, the notes, or *lus*, with which they construct their scales were the sounds of their inventor's voice when he spoke in reasoned tones. Another tale ascribes the lus to the sounds of birds imitating the tones of different lengths of bamboo pipes. Each lu has extramusical connotations corresponding to planets, colors, substances, directions, and so on. Each also represents one month and one animal, a concept related to similar ideas in India, Greece, and Islamic cultures. The tones for a particular composition are selected from one set of lus according not so much to musical considerations as to the season or other extramusical concepts.

The classical (Asian) Indian music tradition is based on melodic patterns, called *rāgas*, of five to nine tones. Each rāga is associated with certain gods, colors, hours, and seasons, and each is conceived to evoke and sustain a particular mood. Some rāgas are even considered to have magical powers. Music students must memorize an enormous number of rāgas, though professional musicians often work with just a few. In performance, having chosen a particular rāga to serve as a source of inspiration and melodic organization, a musician improvises melodies based on its tones.

Islamic classical music, too, is based on scale patterns variously named in different Islamic countries but sharing with Indian music the concept that each pattern is associated with a particular mood, time of day, season of the year, and color. Each has psychological and medical attributes as well.

Many examples of the music of China and India are available on the Internet.

CHAPTER

4 Harmony

TWO OR MORE DIFFERENT TONES SOUNDED TOGETHER produce **harmony** in music. It has been suggested that harmony is to music as perspective is to painting because harmony and perspective add "depth" to their respective arts. Supporting this analogy are the facts that linear perspective in painting and harmony in music both developed during the historical period known as the Renaissance, and that both are characteristically Western concepts of little significance in the art and music of other cultures.

Melody and harmony work closely together. A singer's melody is sometimes accompanied by instrumental harmony. One voice in a quartet sings the melody of a song while the other three voices "harmonize." While the crowd at a football game sings the national anthem, the band on the field plays both the melody and the harmonic accompaniment.

In everyday English, the word "harmony" implies a pleasant or desirable condition. In music, however, harmony has neither positive nor negative connotations; it refers simply and objectively to meaningful combinations of tones.

THINKING CRITICALLY ABOUT HARMONY

Why do you think the concepts of "depth" in music (through harmony) and in painting (through linear perspective) are more relevant to Western arts than to those of Asia, Africa, or Native American cultures?

As you review the Listening Examples studied so far, consider them in terms of harmony. Why do you think some verses of "Amazing Grace" are sung unaccompanied—not involving harmony at all—but others have more or less complex instrumental accompaniment?

CHORDS

A **chord** is a combination of three or more pitches sounded simultaneously and conceived not as an incidental result of combined tones but as a meaningful whole. Just as random successive tones do not constitute a melody (or random successive words a sentence), so random combinations of pitches do not constitute chords.

Chords may be built of any combination of intervals, as many composers have shown in daringly innovative ways; however, Western harmony traditionally has built chords by combining thirds with thirds. The chord most common in traditional Western music, called a **triad,** consists of one third piled on top of another, as in Figure 4.1, showing triads built on each note of the C-major scale. Melodies often "outline" chords, implying appropriate accompanying harmonies: for example, the triad outlined by the first six tones of "The Star Spangled Banner" (see Figure 3.1b) suggests a likely harmonic accompaniment for that portion of the piece. On connect MUSIC, listen to those six notes played in succession, and then hear them played simultaneously, as a chord.