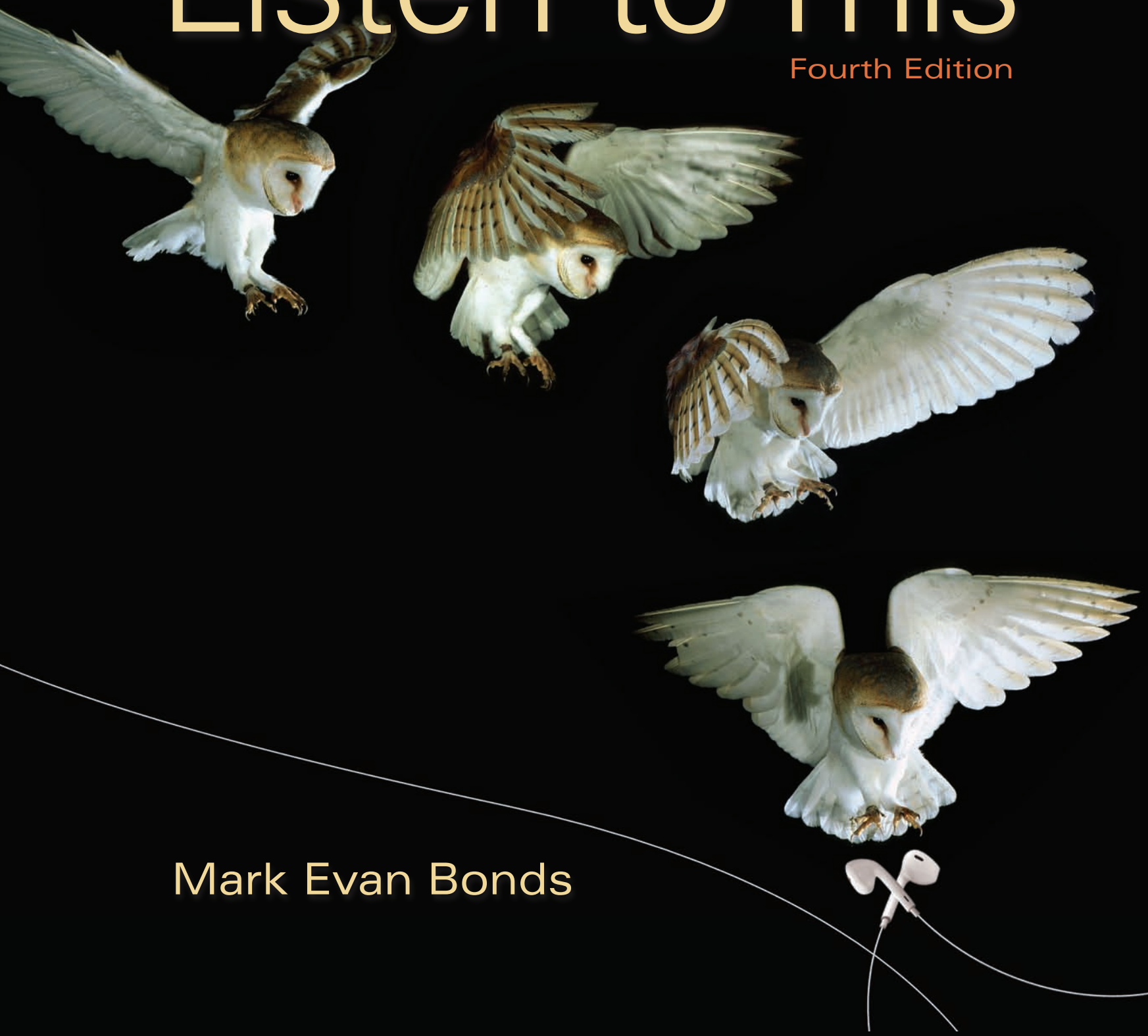
Listen to This

Fourth Edition



Mark Evan Bonds

Listen to This

Fourth Edition

To Bob

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Contents

Revel Bonus Chapters

Listen to This: Listening Guides and Recordings

The audio examples for *Listen to This* are available through these sources:

- **Revel**, where audio streams at the click of a button within each chapter in two places—"Listen to This First" and "Listening Guide." The former streams through a simple audio player and the latter streams through an interactive player that synchronizes music with guided narration or text.
- **MyMusicLab**, where audio streams from playlists organized by chapter. Again, it is possible to listen to the music with or without a companion listening guide.
- **Mp3 download** to any computer or portable device, available by purchase of a download card with a unique code. Timings in the print listening guide correspond to the timings within these audio files. Note however that digital files play at slightly different speeds on different devices, and timings may vary.

Chapter	Composer, Title	Listen to This First Page Number	Listening Guide Page Number	Download Track
Introduction	Examples illustrating the Elements of Music			1–16
Introduction	Benjamin Britten, *Young Person's Guide to the Orchestra*		18	17
1	Hildegard von Bingen, *Play of Virtues* (excerpt)	25	30	18
2	San Ildefonso Indians of New Mexico, *Eagle Dance*	33	36	19
3	Plainchant Alleluia, "Caro mea"	38	40	20
4	Francesco Landini, "Behold, Spring"	42	45	21
5	Guillaume de Machaut, "No More than One Man Could Count the Stars"	48	50	22
6	Alfonso el Sabio, *Songs to the Virgin Mary*, no. 147, "The Talking Sheep"	52	55	23
7	Josquin des Prez, "The Cricket"	64	67	24
8	Thomas Weelkes, "Since Robin Hood"	70	73	25
9	William Byrd, "Sing Joyfully"	76	79	26
10	Giovanni Pierluigi da Palestrina, *Pope Marcellus Mass*, "Gloria"	82	86	27
11	Rhyming Singers of the Bahamas, "My Lord Help Me to Pray"	89	92	28
12	Tielman Susato, *Moorish Dance*	94	97	29
13	Claudio Monteverdi, *Orpheus*, selection from Act II	108	111	30
14	Henry Purcell, *Dido and Aeneas*, selections	114	118	31–32
15	Mbuti Pygmies, "Marriage Celebration Song"	121	124	33
16	Barbara Strozzi, "Revenge"	127	130	34
17	Antonio Vivaldi, *The Four Seasons*, "Winter," first movement	134	138	35

Chapter	Composer, Title	Listen to This First Page Number	Listening Guide Page Number	Download Track
18	Johann Sebastian Bach, Fugue in G Minor, BWV 578 (“Little”)	141	145	36–37
19	Johann Sebastian Bach, Brandenburg Concerto no. 2 in F Major, BWV 1047, finale	149	152	38
20	Johann Sebastian Bach, Cantata 140: *Awake, a Voice Calls to Us*, selections	155	160	39–40
21	George Frideric Handel, *Messiah*, selections	162	167	41–42
22	Joseph Haydn, String Quartet in C Major, op. 76, no. 3, second movement	178	184	43
23	Master Musicians of the Ikuta-ryu, *Cherry Blossom*	187	190	44
24	Joseph Haydn, Symphony no. 102 in B-flat Major, third and fourth movements	193	200	45–46
25	Wolfgang Amadeus Mozart, Symphony no. 40 in G Minor, K. 550, first movement	203	208	47
26	Wolfgang Amadeus Mozart, Piano Concerto in A Major, K. 488, first movement	213	218	48
27	Wolfgang Amadeus Mozart, *The Marriage of Figaro*, Act I, “Cosa sento”	221	224	49
28	Jingju, “The Reunion”	229	232	50
29	William Billings, “Chester”	234	238	51
30	Ludwig van Beethoven, Symphony no. 5 in C Minor, op. 67	248	252	52–55
31	Franz Schubert, “Erlkönig,” D. 328	258	260	56
32	Felix Mendelssohn, *Overture to a Midsummer Night’s Dream*	265	268	57
33	Hector Berlioz, *Symphonie fantastique*, fourth movement (“March to the Scaffold”)	271	274	58
34	Fanny Mendelssohn Hensel, Piano Trio in D Minor, op. 11, third movement (“Song”)	277	279	59
35	Robert Schumann, “Dedication”	282	286	60
36	Clara Wieck Schumann, “Forward!”	290	292	61
37	Frédéric Chopin, Mazurka in B-flat, op. 7, no. 1	296	300	62
38	Louis Moreau Gottschalk, *Union: Concert Paraphrase on National Airs*	303	306	63
39	Ravi Shankar, *Raga Sindhi-Bhairavi*	310	314	64
40	Giuseppe Verdi, *La Traviata*, Act I, selection (“Follie!”)	317	320	65

Chapter	Composer, Title	Listen to This First Page Number	Listening Guide Page Number	Download Track
41	Richard Wagner, *The Valkyrie*, Act III, selection ("Wotan's Farewell")	325	330	66
42	Peter Ilyich Tchaikovsky, *Swan Lake*, Act IV, finale	335	338	67
43	Johannes Brahms, Symphony no. 4 in E Minor, op. 98, finale	341	344	68
44	Antonín Dvořák, String Quartet in F Major, op. 96 ("American"), third movement	350	354	69
45	Claude Debussy, *Voiles*	365	371	70
46	Charles Ives, *The Unanswered Question*	374	378	71
47	Arnold Schoenberg, "Columbine" from *Pierrot lunaire*	380	383	72
48	Igor Stravinsky, *The Rite of Spring*, Part One	386	394	73
49	Scott Joplin, *Maple Leaf Rag*	398	403	74
50	Robert Johnson, "Terraplane Blues"	406	410	75
51	Duke Ellington, "Cotton Tail"	414	418	76
52	Charlie Parker, "Ornithology"	425	428	77
53	Ruth Crawford, *Piano Study in Mixed Accents*	432	436	78
54	Germaine Tailleferre, Concertino for Harp and Orchestra, finale	439	442	79
55	William Grant Still, "A Black Pierrot" from *Songs of Separation*	445	448	80
56	Aaron Copland, "Hoe-Down" from *Rodeo*	451	454	81
57	Béla Bartók, *Concerto for Orchestra*, second movement ("Game of Pairs")	457	460	82
58	Leonard Bernstein, "Tonight" from *West Side Story*	463	466	83
59	John Cage, Sonata II from *Sonatas and Interludes*	472	476	84
60	Gamelan Gong Kebyar of Belaluan, Bali, Kebyar Ding III, "Oncang-oncangan"	479	482	85
61	Philip Glass, "Knee Play 1" from *Einstein on the Beach*	487	490	86
62	Mahalia Jackson (performer), "It Don't Cost Very Much"	494	498	87
63	Tania León, *A la Par*, second movement ("Guaguancó")	502	505	88
64	Corey Dargel, "On This Date Every Year"	508	512	89
65	Austin Wintory, "Nascence," from *Journey*	515	518	90

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Dear Reader,

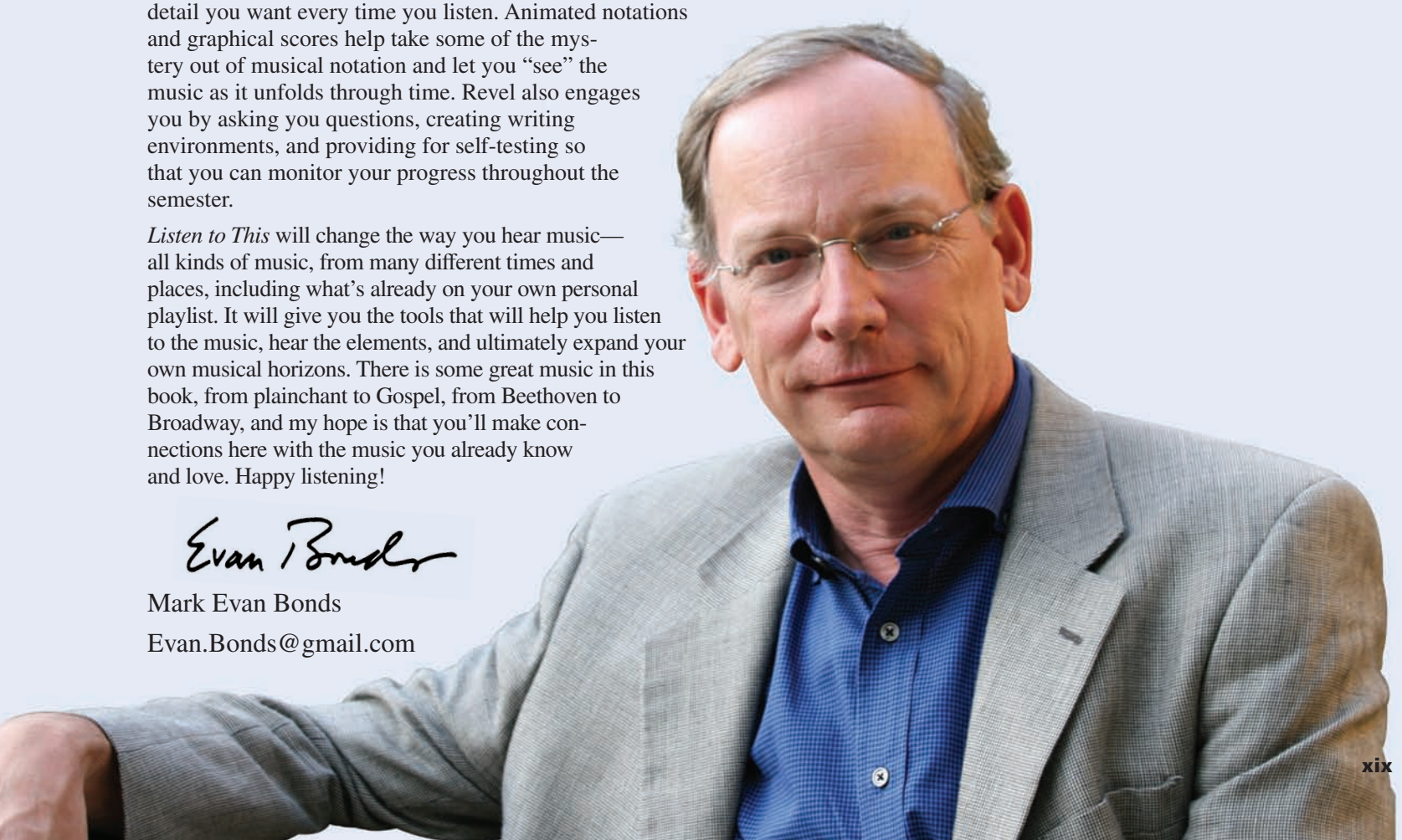
Why study music? Isn't it enough just to enjoy it? It's certainly my hope that you *will* enjoy the music in this book, but I firmly believe that the more we understand things, the greater the pleasure we can take from them. Think about food: we can certainly enjoy a good dish without the foggiest notion of how it was made. But if we know what goes into it and how it was prepared, we're likely to enjoy it that much more. It even *tastes* different.

Music works the same way: if we know what goes into it—how it's put together—it will *sound* different. Music can also tell us a lot about ourselves, not only as individuals, but as members of a larger community and culture. The music we love is a big part of who we are. People often say that music is a universal language, but the fact is that every culture has its own particular way of "speaking," and some of these languages can seem very foreign to us, especially if we go back in time. The challenge for me in writing this book was to connect our passion for the music we already love with the immense varieties of music from throughout history and from all over the world.

When I started thinking about how to do this, I stumbled onto a very basic fact that others had discovered long before: that all music, no matter where or when it comes from, is built on some combination of only a few basic elements—melody, rhythm, harmony, texture, timbre, dynamics, and form—and that if we listen for those elements we can better understand how a piece of music actually works, no matter how unfamiliar it may seem to us at first. The elements of music *are* universal. They can give us a good foundation for learning—and enjoying—many new musical languages.

Listen to This encourages you to listen actively, and the new Revel digital learning environment that is part of this edition helps you do just that. The interactive listening guides available for each chapter allow you to focus on as many or as few elements as you wish: you can decide exactly how much detail you want every time you listen. Animated notations and graphical scores help take some of the mystery out of musical notation and let you "see" the music as it unfolds through time. Revel also engages you by asking you questions, creating writing environments, and providing for self-testing so that you can monitor your progress throughout the semester.

Listen to This will change the way you hear music—all kinds of music, from many different times and places, including what's already on your own personal playlist. It will give you the tools that will help you listen to the music, hear the elements, and ultimately expand your own musical horizons. There is some great music in this book, from plainchant to Gospel, from Beethoven to Broadway, and my hope is that you'll make connections here with the music you already know and love. Happy listening!



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What's New to This Edition?

Listen to This introduces the study of music with an emphasis on developing listening skills within a chronologically-organized, broad range of repertoire. The unique organization—one work per chapter, examined with a focus on the elements of music—is modular, so that instructors can construct their ideal music appreciation course. This new fourth edition offers additional works to choose from as well as an enhanced digital learning environment in Revel, where text, audio, and video are seamlessly integrated.

New Narrated Listening Guides, written and spoken by Evan Bonds, offer another way for students to recognize key musical events as they listen to the chapter examples. Ideal for auditory learners, students studying on a mobile device, or even for use in the classroom, these narrated guides make judicious use of voiceovers and include brief introductions to each work.

New and expanded topic coverage includes new text and videos in the Elements section, introducing the instruments of the orchestra; a new listening guide to Britten's *Young Person's Guide to the Orchestra*; a new chapter on Palestrina's "Gloria" from the *Pope Marcellus Mass* as an example of Renaissance polyphony for the Catholic service; a new chapter on Tchaikovsky's *Swan Lake* as an example of Russian Romanticism and ballet music; "Dido's Lament" from *Dido and Aeneas* as an additional example of Purcell's expressive use of ostinato bass; and new selections for Machaut and Alfonso el Sabio based on new recording options. In addition, a number of chapters that had previously been "ebook only" are now available in print: the medieval plainchant alleluia "Caro mea," Tielman Susato's *Moorish Dance*, Robert Schumann's "Dedication," Mahalia Jackson's rendition of "It Don't Cost Very Much," and the Beijing opera "The Reunion." In every chapter, the text has been carefully revised to make sure that it is as clear and accessible as it is lively and engaging.

Expanded recordings package, including 90 tracks for 6½ hours of music, chosen by the author. The music is available in three options: streaming through Revel, streaming through MyMusicLab, and downloaded to your music library.

Revel[TM]: Educational Technology Designed for the Way Today's Students Read, Think and Learn

When students are engaged deeply, they learn more effectively and perform better in their courses. This simple fact inspired the creation of Revel: an immersive learning experience designed for the way today's students read, think, and learn. Built in collaboration with educators and students nationwide, Revel is the newest, fully digital way to deliver respected Pearson content.

In Revel for *Listen to This*, media interactives and assessments are integrated directly within the written narrative, providing opportunities for students to read about, listen to, and practice course material in one place.

- In every chapter, musical selections stream in two ways: in a simple audio player, located at the start of each discussion of the elements ("Listen to This First"), and in the Listening Guide player, after students have learned the key vocabulary and concepts.
- Within each Listening Guide player, there are multiple options for guided listening, so that students can pick the options that best fit their learning style and listening environment.

- ◊ **Interactive Listening Guides** scroll descriptions as the music is playing. Each key element in a piece is represented by a distinctly colored line, allowing students to track changes in melody, harmony, rhythm, texture, timbre, and/or dynamics as well as form. Students can move around in the piece using these lines, and then can hide lines if they want a tighter focus.
- ◊ **Narrated Listening Guides** combine music audio with a spoken description of what to listen for in each selection. As an alternative to reading while listening, the narrated guides—designated "Mobile Guides" when used in mobile devices—re ideal for students on-the-go as well as in the classroom.
- ◊ For readers who prefer a guide that scrolls from top to bottom, the vertical **Scrolling Listening Guide** is available.
- ◊ Animated visualizations for selected works allow users to "see" the way the music sounds. These animations were developed by the composer and educator Stephen Malinowski.

- The extensive video program includes animated notations that illustrate musical concepts even for students who do not read music. In addition, a series of brief instrument videos, featuring performances by college music students, provides a lively and informative introduction to the timbre and methods of playing orchestral instruments.
- Students have the option of listening to a spoken version of the text in which the narrator demonstrates simple musical concepts as he reads.
- Auto-graded listening quizzes and concept review quizzes in every chapter offer students the chance to apply and test their understanding of chapter content.
- Writing prompts help foster critical thinking about musical ideas. In every chapter, "Journaling" questions are geared toward developing basic skills in musical analysis, while "Shared Writing" prompts that students answer in an online discussion space ask them to apply musical concepts to their own playlists. A third type of writing assignment, the short essay, is available at the discretion of the instructor; this assignment resides in Writing Space, a site that includes resources to help students with drafting and editing and to help teachers with grading and responding.

Additional Resources & Listening Choices

Pearson recognizes that a strong set of recordings is essential to the music appreciation course. Every selection in this book is available in the recording package created in partnership with Sony Music. (See page xv for a list of recordings.) The audio examples for *Listen to This* are available through these sources:

- Revel, where audio streams at the click of a button within each chapter in two places—"Listen to This First" and "Listening Guide." The former streams through a simple audio player and the latter streams through an interactive player that synchs music with guided narration or text.
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In addition to the paperbound textbook and the Revel digital version, *Listen to This* is available in the following formats to give you and your students more choices—and more ways to save.

- **The Books a la Carte edition** offers a convenient, three-hole-punched, loose-leaf version of the traditional text at a discounted price—allowing students to take only what they need to class. Books a la Carte editions are available both with and without access to Revel.
- **Build your own Pearson Custom course material:** for enrollments of at least 25, the Pearson Custom Library allows you to create your own textbook by (1) combining chapters from best-selling Pearson textbooks in the sequence you want and (2) adding your own content, such as a guide to a local music venue, your syllabus, or a study guide you've created. A Pearson Custom Library book is priced according to the number of chapters and may even save your students money. To begin building your custom text, visit www.pearsoncustomlibrary.com or contact your Pearson representative.
- **My Music Lab:** For students using a print text, MyMusicLab offers students access to the listening selections, listening guides, videos, and listening quizzes.
- **MediaShare** is a learning application for sharing, discussing, and assessing multimedia. Instructors easily can assign instructional videos to students, create quiz questions, and ask students to comment and reflect on the videos to facilitate collaborative discussion. MediaShare also allows students to record or upload their own videos and other multimedia projects, which they can submit to an instructor and peers for both evaluation via rubrics and review via comments at time-stamped intervals. Additionally, MediaShare allows students working in a group to submit a single artifact for evaluation on behalf of the group.

For instructors, Pearson offers the following supplements:

- **Instructor's Manual**

  Completely revised and updated for the fourth edition, this robust Instructor's Manual provides you with detailed teaching strategies and in-depth information about each chapter of Listen to This. Sections include Chapter Overview, Key Terms, Lecture and Discussion Topics, Resources, and Writing Assignments. Available as a free download at https://www.pearsonhighered.com/educator/profile/ircHomeTab.page.

- **Test Item File**

  Build your own exams and quizzes using this downloadable set of questions, including multiple choice, short answer, and essay questions. Available as a free download at https://www.pearsonhighered.com/educator/profile/ircHomeTab.page.

- **MyTest**

  Create customized tests quickly and easily using this flexible, online test-generating software that includes all questions found in the Test Item File. Available at www.pearsonmytest.com.

- **PowerPoints**

  Use this Microsoft PowerPoint® program to enhance your lecture presentations on *Listen to This*. Available as a free download at https://www.pearsonhighered.com/educator/profile/ircHomeTab.page.

*For further information on Teaching and Learning Resources, please contact your local Pearson sales representative. To find the name of your Pearson representative, go to http://www.pearsonhighered.com/educator/replocator/.

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Developing *Listen to This, Fourth Edition*

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Stephanie Lawrence-White, Bennett College for Women
Ran Whitley, Campbell University

Jocelyn Nelson, East Carolina University
Lori Wacker, East Carolina University
Glendora Powell, Louisburg College
Michael Day, North Carolina A&T State
Candace Bailey, North Carolina Central University
Alison Arnold, North Carolina State University
Katharine Boyes, Saint Augustine's College
Anne Harley, University of North Carolina, Charlotte
James A. Grymes, University of North Carolina, Charlotte
Soo Goh, University of North Carolina, Pembroke
Emily Orr, University of North Carolina, Pembroke
Barry Salwen, University of North Carolina, Wilmington
Donna Gwyn Wiggins, Winston-Salem State University

North Dakota
Dorothy Keyser, University of North Dakota

Ohio
Karen McCall Dale, Cleveland State Community College
Will Benson, Cleveland State University
Eric Ziolek, Cleveland State University
Ron Emoff, Ohio State University at Newark

Oklahoma
Mary Susan Whaley, Northeastern Oklahoma A&M College
Kristen Todd, Oklahoma Baptist University
Celeste Johnson, Oklahoma State University

Oregon
Hugh Foley, Rogers State University
Judy Cepetto Hedberg, Portland Community College
Reeves Shulstad, Salem College

Pennsylvania
Mark Jelinek, Bloomsburg University
Ann Stokes, Bloomsburg University
Barry Long, Bucknell University
Michael Boyd, Chatham University
Arlene Caney, Community College of Philadelphia
Bruce Kaminsky, Drexel University
Lynn Riley, Drexel University
Thomas Kittinger, Harrisburg Area Community College
Victor Vallo Jr., Immaculata University
Dr. Matthew Baumer, Indiana University of Pennsylvania
Ronald Horner, Indiana University of Pennsylvania
R. Todd Rober, Kutztown University of Pennsylvania
Mahlon Grass, Lock Haven University
Glen Hosterman, Lock Haven University
Dr. Daniel M. Heslink, Millersville University
Stephen Hopkins, Penn State University
John Packard, Penn State University
Charles Youman, Penn State University
Fred Dade, Shippensburg University
Margaret Lucia, Shippensburg University

South Carolina
Audrey L. Barksdale, Morris College
Fabio Parrini, North Greenville University

South Dakota
Christopher Hahn, Black Hills State University

Tennessee
Stephen Clark, Austin Peay State University
Francis Massinon, Austin Peay State University
Gail Robinson Oturu, Austin Peay State University
Ann L. Silverburg, Austin Peay State University
Ken Cardillo, Chattanooga State University
Amanda Hyberger, Chattanooga State University
Mark Lee, Columbia State Community College
David Bubsey, East Tennessee State University
Lee Weimer, Lambuth University
Eric Fisher, Middle Tennessee State University
Steve Shearon, Middle Tennessee State University
Laura Feo-Fernandez, University of Memphis
Julie Hill, University of Tennessee at Martin

Texas
Kevin Lambert, Angelo State University
Sharon Davis, Austin Community College
Kimberly Harris, Collin College
Kurt Gilman, Lamar University
Charlotte Mueller, Lee College
Charles Carson, Lone Star College–Montgomery
Mandy Morrison, McLennan Community College
Norval Crews, Midwestern State University
Gary Lewis, Midwestern State University
Beth May, Northwest Vista College
Ryan Gilchrist, Sam Houston State University
Sheryl Murphy-Manley, Sam Houston State University
Karen Marston, San Jacinto College Central
Cecilia Smith, South Texas College
James Weaver, Stephen F. Austin State University
Vicky Johnson, Tarleton State University
Marianne Henry, Texas A&M University
Prudence McDaniel, Texas A&M University
Michael Berry, Texas Tech University
Eric Fried, Texas Tech University
Lynn Lamkin, University of Houston
Josef Butts, University of Texas
Ronald Noble, University of Texas at San Antonio
Drew Stephen, University of Texas at San Antonio
James Syler, University of Texas at San Antonio
Dr. Jeffrey Emge, University of Texas at Tyler
Melissa Colgin-Abeln, University of Texas, El Paso

Utah
Luke Howard, Brigham Young University
Thomas Priest, Webster State University

Virginia
Gary Evans, Ferrum College
Mary Kay Adams, James Madison University
Vicki Curry, James Madison University
Jonathan Gibson, James Madison University
Brenda Witmer, James Madison University
Lise Keiter-Brotzman, Mary Baldwin College
Louise Billaud, New River Community College
Wendy Matthews, Northern Virginia Community College
Robert C. Ford, Tidewater Community College
John Husser, Virginia Tech

Virgin Islands
Vanessa Cornett-Murtada, University of St. Thomas

Washington
Keith Ward, University of Puget Sound
Bertil van Boer, Western Washington University
Laura Stambaugh, Western Washington University

West Virginia
Lloyd Bone, Glenville State College

Wisconsin
Daniel Fairchild, University of Wisconsin–Platteville

Wyoming
Katrina Zook, University of Wyoming

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The Elements of Music: **A Brief Introduction**

No matter what the period or style, all music grows out of some combination of these basic elements:

Melody

Melody: The Tune. Melody is a single line of notes heard in succession as a coherent unit. A melody has shape, moving up or down in ways that capture and hold our attention over a span of time. A melody is like a story: it has a beginning, a middle, and an end.

Dynamics

Dynamics: Loud to Soft. The same music can be performed at many degrees of volume, from very soft to very loud. Dynamics determine the volume of a given work or passage in a work of music.

Rhythm

Rhythm: The Time. Rhythm is the ordering of music through time. Not all music has a melody, but all music has rhythm. A drum solo, for example, makes its effect primarily through rhythm. Rhythm can operate at many levels, from a repetitive, underlying pulse or beat to rapidly changing patterns of longer and shorter sounds.

Harmony

Harmony: Supporting the Melody. Harmony is the sound created by multiple voices playing or singing together. Harmony enriches the melody by creating a fuller sound than can be produced by a single voice.

Texture

Texture: Thick and Thin. Texture is based on the number and general relationship of musical lines or voices. Every work of music has a texture from thick (many voices) to thin (a single voice). Sometimes one line or voice is more important; at other times, all the lines or voices are of equal importance.

Timbre

Timbre: The Color of Music. Timbre is the character of a sound. The same melody sounds very different when performed by a violin, a clarinet, a guitar, or a human voice. These sources can all produce the same pitch, but what makes the same melody sound different is the timbre of each one.

Form

Form: The Architecture of Music. A single melody is usually too short to constitute a complete work of music. Typically, a melody is repeated, varied, or contrasted with a different melody. The way in which all these subunits are put together—the structure of the whole—is musical form. Form is based on repetition (**A A**), variation (**A A'**), contrast (**A B**), or some combination of these three possibilities.

Word–Music Relationships

Word–Music Relationships: How Words Shape What We Hear. If there is a text to be sung, we must consider the relationship of the words to the music. How does the music capture the meaning and spirit of its text? And even if there is not a text to be sung, many works have titles that suggest how we might hear them. Titles like *Winter*, *Rodeo*, and *The Rite of Spring* strongly influence the way in which we hear these works. Some composers have even written detailed descriptions of what a particular work is about in what we call "program music."

In any given piece of music these elements work together quite closely. By isolating and examining the nature and function of each separately, we can better appreciate their specific contributions to the music we hear.

We can best hear how each of these elements works by considering how each one can change the nature of a single, well-known piece of music. We all know "The Star-Spangled Banner" from having heard it countless times, but how often have we actually *listened* to it? We can hear and recognize the tune easily enough, but listening demands that we focus on its various elements and the ways they work together. Let's look at each of the basic elements of music to see how it functions in this song.

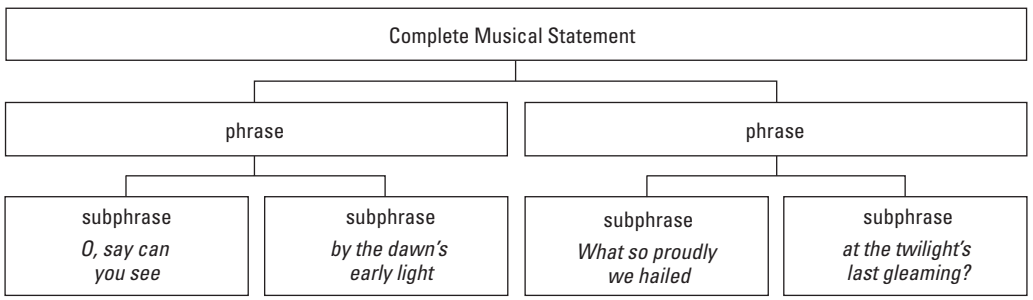
Melody

Melody is a single line of notes heard in succession as a coherent unit. A **note** is the smallest unit of music, the building block out of which larger structures are created. So what makes the notes of a melody hang together? How is the melody of "The Star-Spangled Banner" organized? What are its individual units, and how do we know it's over, other than by having heard it so often? Think about how we sing this melody and where we draw a breath:

O, say can you see (*breath*) by the dawn's early light (*breath*)
What so proudly we hailed (*breath*) at the twilight's last gleaming? (*breath*)

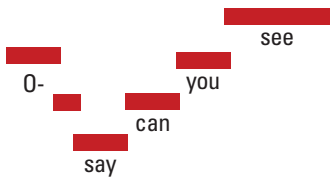
These breaths correspond to the ends of **phrases** in both the poetry and the music. The first line of the text breaks down into two phrases (O, say can you see / by the dawn's early light), which together make a larger phrase (the entire line). This larger phrase constitutes a complete unit of thought, which happens to be a question. But do we feel a sense of closure when we sing "dawn's early light"? Not really. The phrase sounds as if it hasn't quite finished yet, which indeed it has not. Only when we get to the end of the second line ("twilight's last gleaming") do we feel a sense of arrival, a sense of completion. The second line is organized on the same principle as the first (two subphrases), but by the time we sing "at the twilight's last gleaming," we feel as if we have reached a goal of sorts. This is the end of a still larger phrase, a complete musical statement that covers the first two lines of text. When we hear a point of arrival like this, we are hearing what is called a **cadence**. A cadence is like a comma or period in a sentence: It signals the end of a unit. We sense a point of resolution, of closure. And just as commas and periods indicate different levels of completion (phrase vs. sentence), music has weaker and stronger cadences.

The melody of "The Star-Spangled Banner" is typical of the way melodies in general are constructed: Smaller units (subphrases) combine into larger units (phrases), which in turn combine



into still larger units (complete statements), which end with a cadence. A series of these complete statements—musical sentences, in effect—combine to create an entire musical work. Sometimes it is helpful to listen to the structure of the smallest units; at other times, it is helpful to listen to the medium- and large-scale units. In the end, we can listen to how all these units operate together to form a complete and satisfying whole.

Another important component of melody is the nature of the **melodic motion**. Do the notes move smoothly in stepwise fashion (as in "land of the free")? Or do they make big leaps (as in "O, say can you see")? Smooth, stepwise motion with notes very close to each other is called **conjunct motion**; motion by leaps, especially large leaps, is called **disjunct motion**. Most melodies, including "The Star-Spangled Banner," consist of a combination of both kinds of motion. "The Star-Spangled Banner" alternates between the two, opening with disjunct motion ("O, say can you see") followed by a brief passage of conjunct motion ("by the dawn's"), followed in turn by a large leap downward (between "dawn's" and "early"), followed by more conjunct motion. Graphically, this variety of motion can be represented in such a way that even if you cannot read music, you can see the relationship between the downward or upward movement of the notes and the distances between them.



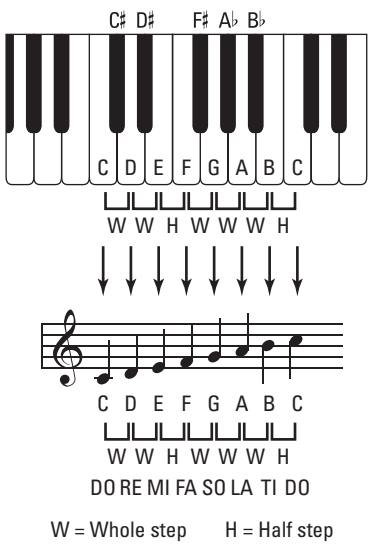
Disjunct motion

Conjunct motion

Graphical Score: Melodic Motion

Very few melodies are entirely conjunct or disjunct. "The Star-Spangled Banner" is typical in combining both kinds of motion, and in balancing downward and upward contours.

The notes of any given melody typically derive from the notes of a **scale**. The familiar "do-re-mi-fa-so-la-ti-do" is a scale, a series of notes that moves stepwise and covers a complete span called an **octave** (so called because it covers eight notes).

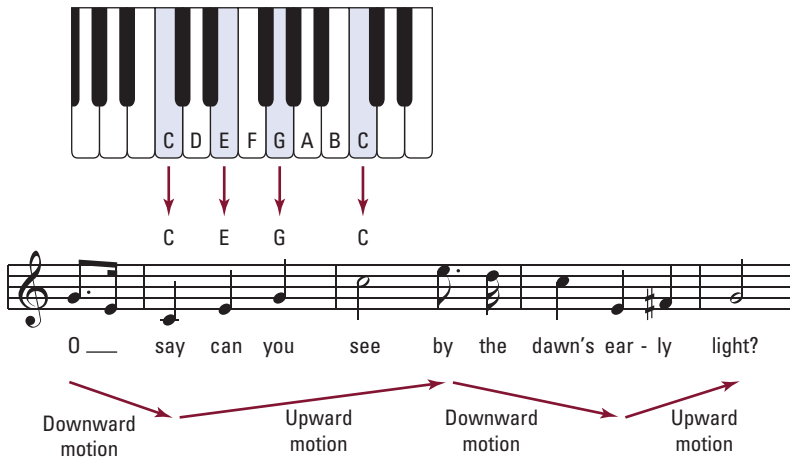


W = Whole step H = Half step

The distance between each note is called an **interval**. The intervals in the standard scale are mostly whole steps, with two strategically placed half steps. Every adjacent note on the keyboard, whether it is a white key or a black key, is a half step apart.

A scale by itself is not as particularly interesting as a melody, but a scale provides the notes—the essential building blocks—of a melody.

Audio: The C Major Scale

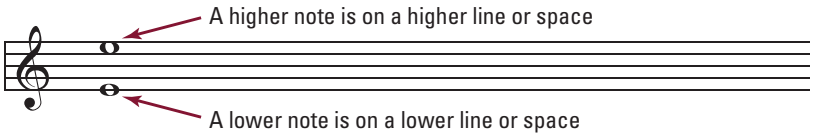


The opening of "The Star-Spangled Banner" in the key of C major.

Animated Notation: Downward and Upward Melodic Motion

The upward or downward movement of notes is conveyed graphically in music notation. A melody that moves downward also moves downward on the staff (the system of parallel horizontal lines). Even if you cannot read music, you can see that higher notes appear higher on the staff than lower notes. This kind of visual aid can help reinforce what we hear.

Animated Notation: Higher and Lower Notes



Scales can begin and end on any pair of notes. The diagrams above show a scale that begins and ends on the note "C," and a melody that centers on this same note (on "O, *say* can you *see*"). Because C is the central note of the scale on which this melody is based, we would say that this melody is in the **key** of C. But the same melody can be played in any key. Thus "The Star-Spangled Banner" can also be performed in the key of D, the key of A-flat, or in any other key.

In the standard system in use in Western music since about 1600, there are 12 keys, one on each of the 12 half steps in any octave. An octave is an interval between two notes with the same name (a lower "C" to a higher "C," or a lower "do" to a higher "do": see the earlier scale diagram). In notation, the sharp sign (♯) indicates that a note is raised a half step, while a flat sign (♭) indicates that a note is lowered a half step. For each of these keys, whether it is E-flat or F-sharp or A, there are two modes: major and minor. The **major mode** corresponds to the scale produced by

singing "do-re-mi-fa-so-la-ti-do." Melodies using these notes tend to sound brighter. "The Star-Spangled Banner" is in the major mode. Because it seeks to convey a mood of optimism and joy, it uses a melody derived from a major-mode scale.

The **minor mode**, by contrast, strikes most listeners as darker, more somber, and less optimistic. Most of the notes in the minor mode are also in the major. But two of the seven notes—the third ("mi") and sixth ("la")—are slightly lower, and this creates a very different kind of sound. Listen to what "The Star-Spangled Banner" would sound like in the minor mode; all the notes are the same as in the original except for "mi" and "la."

Audio: Minor Mode

Very few national anthems begin and end in the minor mode (Israel's *Hatikva*—"The Hope"—is one notable exception). Many national anthems (and many melodies of all kinds), however, mix minor-mode phrases into the middle of melodies that begin and end in major. This creates a sense of contrasting moods that can be very effective in creating a sense of triumph over adversity, for the minor mode is especially well suited for settings of texts that express grief or anguish or (as in the case of Israel's *Hatikva*) longing. (In fact, "mode" and "mood" come from the same root word in Latin.)

Dynamics

Dynamics is a term used to indicate the volume of sound, ranging from very soft to very loud. We have all heard "The Star-Spangled Banner" played at a single (loud) volume by a military band. We have also heard it performed at a level only slightly above a whisper, often by an ensemble of unaccompanied voices. And we have heard performances that move from one extreme to the other. Dynamics can change suddenly, or they can change gradually.

Volume is a relative quality: What seems loud to one listener might be barely audible to another, and vice versa. In music, it is common to use Italian terms to refer to volume:

pianissimo (pp)—very soft
piano (p)—soft
mezzo piano (mp)—medium soft
mezzo forte (mf)—medium loud
forte (f)—loud
fortissimo (ff)—very loud

Rhythm

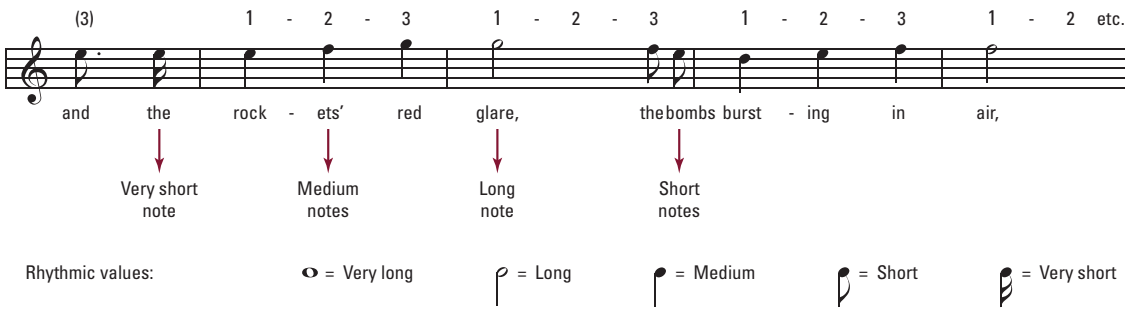
Rhythm is the movement of music in time. The most basic framework of this temporal ordering is **meter**. In music, as in poetry, meter is an underlying pattern of beats that maintains itself consistently throughout a work. If we slowly read aloud the first line of "The Star-Spangled Banner," we can hear that it falls into a regular pattern of three-beat units: LONG-short-short, LONG-short-short, etc., with the long syllables accented (emphasized) and the short ones unaccented (ˊ = long; ˘ = short):

O, | say can you | see, by the | dawn's early | light?

In poetry, this meter is known as *dactylic* (LONG-short-short). In music, this meter corresponds to what is known as **triple meter**: one accented (strong) beat followed by two unaccented (weak) beats. The rhythm of the music to "The Star-Spangled Banner" is thus organized within the framework of triple meter (**1**-2-3, **1**-2-3, **1**-2-3, etc.), following the meter of its poetry. (The "O" at the very beginning of the text stands outside the first unit: Both rhythmically and textually, its function is to get us started without actually saying much of anything.)

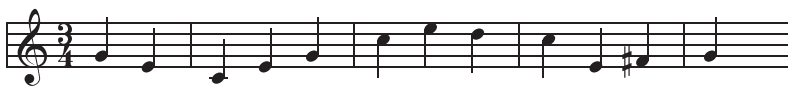
3	**1** 2 3	**1** 2 3	**1** 2 3	**1** 2 3	**1** 2 3	**1** etc.
O,	*say* can you	*see* by the	*dawn's* early	*light* What so	*proud*-ly we	*hailed* . . . etc.

In music, each of these rhythmic units is known as a **measure**. Ordinarily, the first note of each measure receives a relatively strong accent, called the **downbeat**, which helps project the pattern of the meter, just as you would emphasize certain words (*say*, *see*, *dawn's*, *light*) if you were reading the text out loud without singing it. But meter is only one aspect of rhythm. Not every note of "The Star-Spangled Banner" is simply accented or unaccented, strong or weak. Some notes are noticeably longer in duration than others ("say can you SEE," "the rockets' red GLARE"), whereas others are extremely brief (the word *the* in "and the rockets' red glare," for example). The duration of a note—its rhythmic value—is indicated through the note's head (the oval part), its stem (the line going straight up or down from the note head), its flags (the curvy lines coming out of the stems), and other marks. In general, the simpler a note (an empty note head, no stem, no flag), the longer its rhythmic value; the more elaborate a note (a back note head and stem with many flags), the shorter its rhythmic value.



Graphical Score: Rhythmic Values

These longer and shorter notes function flexibly within the broader framework of the underlying meter. So long as the basic pattern of the rhythmic unit is maintained (**1**-2-3), the actual number and duration of the notes within each unit can vary considerably. A melody in which all the notes were exactly the same length would be quite monotonous. Here is what the beginning of "The Star-Spangled Banner" would sound like if all the notes were of equal value:



The opening of "The Star-Spangled Banner," with notes in all the same rhythmic values.

Animated Notation: Same Rhythmic Value

The meter is still triple (**1**-2-3), but the individual notes have lost all rhythmic differentiation.

What would "The Star-Spangled Banner" sound like in a different meter? An American composer named E. E. Bagley (1857–1922) actually worked the opening of the melody into a march he called *National Emblem*. Here, the music moves in **duple meter**, with only two beats to each measure (**1**-2, **1**-2, **1**-2, etc.). This corresponds to the function of the music, to help soldiers or band members march in step (**Left**-right, **Left**-right, **Left**-right, etc.).

Audio: E. E. Bagley, *National Emblem*

Notice how the pitches (the notes) are the same as the tune we know as "The Star-Spangled Banner." But the meter—the framework of the rhythm—is fundamentally different: LONG-short, LONG-short instead of LONG-short-short, LONG-short-short. Could we march to the standard version of "The Star-Spangled Banner"? Not really, because it's in triple meter, and with two legs, it's much easier to march to duple meter.

Another important aspect of rhythm is **tempo**, the speed at which a work of music is performed. We've all heard versions of "The Star-Spangled Banner" that are very slow (often sung by an unaccompanied vocalist) and others that are quite brisk (typically as performed by a military band). Faster or slower tempos can change the mood of a work dramatically.

Harmony

Harmony is the sound created by multiple notes played or sung simultaneously. Whether we realize it or not, we've all heard "The Star-Spangled Banner" performed in many different harmonizations. The melody stays the same, but the notes underneath the tune are different. The resulting harmony can change the character of the work, sometimes subtly, sometimes radically. There is no official version of the harmony of "The Star-Spangled Banner." (Indeed, there is not even an official version of the melody itself.)

If we think of music in terms of space, then melody can be said to function horizontally, harmony vertically. Just as melodies can outline selected notes of a scale through time, harmony presents notes drawn from a scale simultaneously, sounding together. When we hear three or more notes played at the same moment, we often speak of these as a **chord**. A melodic line can be accompanied by a series of chords that change as the melody progresses. A melody as rich as "The Star-Spangled Banner" would sound monotonous—and downright wrong—if it were harmonized with a single chord from beginning to end. The most common harmonization of the tune supports the melody with a variety of different chords, each built upward from a specific note like C (the chord C-E-G) or A (A-C-E) and so on.

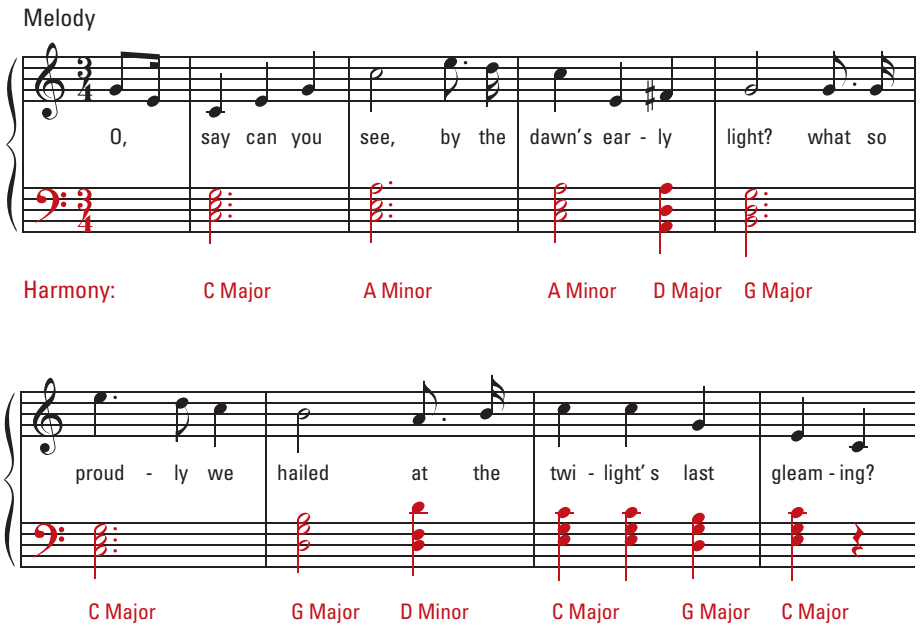
We all know what a melody without harmony sounds like (just think of the many times "The Star-Spangled Banner" is sung by a soloist with no accompaniment at all). But what about harmony without melody? Here is one harmonization of "The Star-Spangled Banner" without the melody.

Audio: "The Star-Spangled Banner," Harmony without the Melody

A single melody can always be harmonized in more than one way, and "The Star-Spangled Banner" is no exception. Some harmonizations are more unconventional than others. Consider, for example, the following harmonization of the melody by the American composer Louis Moreau Gottschalk (see Chapter 38), from a piece for piano titled *Union*, written shortly after the beginning of the Civil War. Even today, almost 150 years later, musicians are still coming up with new ways of harmonizing this same melody. South City Voices, an Atlanta-based vocal jazz ensemble, recently recorded their own version of the tune. The melody is the same as the one we hear all the time, but the harmonies are not.

Audio: Louis Moreau Gottschalk, *Union,* and "The Star-Spangled Banner," performed by South City Voices

Graphical Score: "The Star-Spangled Banner," Harmonized Version



A harmonized version of "The Star-Spangled Banner," with the melody in the upper staff and the chords of the harmony in the lower staff, in red.

Harmony works on a larger scale as well. If a melody is in the key of C major, its primary harmony also centers on C major, establishing this key at the beginning as a kind of home base and returning to it at the end to create a sense of closure. We call this primary key area the **tonic**. A piece that began in one key but ended in another would sound somehow open-ended and incomplete. "The Star-Spangled Banner" begins and ends in the same key, no matter what key is used in performance. If it begins in the key of C major, it ends in C major; if it begins in G major, it ends in G major; and so on.

Marvin Gaye sings a homophonic arrangement of "The Star-Spangled Banner."

Texture

Texture is a function of the number and general relationship of musical lines to one another. Textures can range from thick (many voices or instrumental lines) to thin (a single voice or a single instrumental line).

When "The Star-Spangled Banner" is performed as a single melodic line, with no accompaniment at all, the texture is **monophonic** (*mono* = "single"; *phonic* = "sounding"). This may be a single soloist, or it may be a group of performers all playing or singing the same melody. When multiple performers are singing or playing a single melody together, we call this kind of monophonic texture **unison**.

When the melody is performed with a supporting accompaniment, the texture is **homophonic** (*homo* = "same," as in "sounding at the same time"). This is the most common form of performance of this particular song whenever there is a soloist. The soloist sings the melody, while an instrumental ensemble or backup chorus provides musical

support. Marvin Gaye's performance of "The Star-Spangled Banner" is decidedly homophonic: The focus is entirely on the melody, while the accompaniment (a drum set) stays very much in the background.

Audio: "The Star-Spangled Banner," performed by Marvin Gaye

When the melody is performed against another line of equal importance, the texture is **polyphonic** (*poly* = "many"). In polyphonic texture, every line is, in effect, a melody. Think about the children's song "Row, Row, Row Your Boat," for example: When performed by several people, every voice is singing the same music, so we can't say that one voice has the melody and others don't. And yet all the voices work together to create a satisfying sound.

Polyphonic realizations of "The Star-Spangled Banner" in its entirety are rare, but they do exist. John Knowles Paine's *Concert Variations on "The Star-Spangled Banner"* for organ, which he wrote at the height of the Civil War, features an extended passage in which the principal melody is played against other lines that are melodic in their own right and not mere accompaniment. Listen to the melody at the beginning in a single voice, all by itself. Then notice how the same melody enters later, in a second voice (at 0:11), later again in a third voice (at 0:34), and so on. In the end, no one voice is subordinate to any other. Polyphonic texture can also consist of melodies that are different but sound good when played or sung together.

Graphical Score: John Knowles Paine, *Concert Variations on "The Star-Spangled Banner"* (excerpt)

Timbre

Timbre is the color of music, the character of sound. The same melody can sound very different depending on who is singing or what instruments are playing. At one time or another, "The Star-Spangled Banner" has been performed by probably just about every instrument, voice, or combination of the two imaginable. Listen to the audio clips and compare, for example, the different timbres produced by a solo tenor, an ensemble of mixed voices (men and women), a trumpet in a small jazz ensemble, and a large orchestra.

Audio: "The Star-Spangled Banner," performed by Marvin Gaye, South City Voices, Louis Armstrong, and London Symphony Orchestra (Stravinsky arrangement)

What makes different instruments sound different? The answer to this question goes to the heart of what timbre is—the quality of a sound, apart from its pitch or volume. A **pitch** is a specific frequency of sound (measured as cycles per second), and many instruments can play the same pitch. The pitch "A," for example, is a sound wave of 440 cps (cycles per second), but the same pitch sounds very different on an oboe than on a violin, a guitar, or a saxophone. The basic wavelength of the sound produced by these instruments on this one pitch—the distance between each "peak" of the sound wave—will always be the same, but the shape of these wavelengths can vary considerably.

Louis Armstrong playing the trumpet, 1964.

Just as individual colors blend different light waves, any naturally produced sound is the product of a mixture of many different sound waves. The basic sound wave is known as a *fundamental*. When produced by a machine (as in the case of a midi file), we hear *only* the fundamental: The sound is pure, but for that very reason it is unnatural. This is what makes midi files sound so mechanical. When produced by a musical instrument such as a violin, guitar, or piano, the sound wave of the fundamental is enhanced by the addition of many *partials*, frequencies that blend with the fundamental to create a richer and more distinctive quality of sound.

Instruments and voices vary widely in the range of pitches they can produce. Each voice or instrument has its own distinctive **register**, the span of pitches it