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Listening to Music

"It's not that people don't like classical music. It's that they don't have the chance to understand and experience it."

—Gustavo Dudamel, Director of the Los Angeles Philharmonic Orchestra

It takes practice to become an informed listener. We often "listen" to music while performing another activity—perhaps studying, driving, or just relaxing. In these situations, the music tends to stay in the background and get less than our full attention. This type of "partial listening" is normal and appealing, but this book aims to help you succeed in your music class by **developing your listening skills**. Why is this necessary, you might ask—you probably listen to music all the time. But when we encounter music of an unfamiliar type, or music that's intended to be the center of attention, we need focused listening strategies. Music is a temporal art, meaning that it moves through time. Unlike an art class, where you can look at a masterwork for some time and choose how long to dwell on each element, music does not hold still. And you will, in this course, listen to works that are much longer than your favorite songs. A symphony, for example, can last more than an hour. How can any music hold our attention for so long? Very easily—as we hope you will discover in the chapters that follow.

One of the best ways to "study" music is by **repeated listening**. You probably have favorite books, movies, or songs that you like to revisit again and again, and each time you may notice something new, or appreciate even more a moment you have grown to cherish. It's precisely through repeated encounters that we gain both familiarity with and understanding of the touchstones of our culture. And one of the wonders of the present-day world is that we have the opportunity to

listen to recorded music almost any time we want. We encourage you to listen repeatedly to the examples this book provides: with this kind of repeated, attentive listening, you will gain skills you can then transfer to new repertoires as well as to music you already like.

At the same time, while recordings facilitate repeated listening, it's important to hear music in performance, for nothing can equal the excitement of a live concert. The crowded hall, the visual and aural stimulation of a performance, the audience response, and even the element of unpredictability—what might happen on a particular night—all contribute to the unique communicative powers of people making music. (Be sure to consult Appendix III before you attend a live performance.) At a concert, you will likely hear a work only once, but you can probably find the same composition online and listen again before you try to discuss or write about it. You



A student focused on listening.

have undoubtedly heard the expression “practice makes perfect”; this applies to listening as well as to any other activity.

But just hearing the music is not enough; you need to be an **active listener**, rather than a passive one. This means setting aside all distractions and letting the music be the foreground activity, not background. It’s also important to develop your **musical memory**. This will initially be easier if you are listening to a song in a language you understand, especially if there are repeated lyrics. Instrumental music may seem more daunting at first, but you can concentrate on major events, patterns, or memorable moments, and consider if (most likely when!) you hear them return—a principle at the root of Western musical practice as well as other world traditions. Some composers provide a program, or story, to follow in instrumental works: in those cases, you will be able to associate specific musical ideas with elements of that story. If there is no program, you can make up your own if it helps you follow the “plot”—the order of musical events and patterns of repetition and similarity.

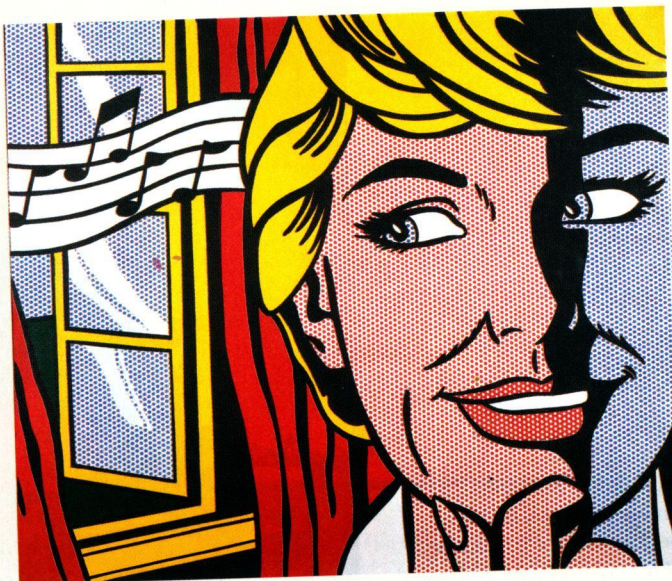
Memory will help you develop a **sense of time** while listening. How long is the work? How long from one recognizable event to another? Is there a pattern in the way they return? You might want to **take notes** as you listen, so that you can recall better the sequence and timing of events. As you listen, allow yourself to respond both **objectively** and **subjectively** to the music. You will be applying technical terms to certain aspects of the music, but consider also your personal response, in your own words. When did you have that response, what musical events triggered it?

Each work studied in the chapters that follow is accompanied by a Listening Guide that outlines **What to Listen For** at the top. You might want to make a similar outline for new works you hear. Be sure to note the **style traits** that help define each composer, era, and type of work discussed in the book; listen for these “markers” when hearing a piece for the first time. We have provided exercises throughout the book that can help you decode a new work’s style and formulate your own description and response.

Performance Matters

Just as no two compositions are exactly alike, so is each performance of a musical work unique: that is, no two performers or groups will choose exactly the same interpretation. Think of covers of rock songs—you recognize the original song, but you also distinguish aspects of the performance that differ. There are a number of criteria that shape a performer’s interpretation—anything from a subtle variation in tempo or dynamics (volume) to changes in the voices or instruments, vastly different ideas of the main lines or melodies, added interpolations between sections, and even the order of sections in a composition.

Throughout the book, we have featured alternate performances of selected works so that you can hear how musicians reshape them; these are noted at the



The sounds wafting through this window are clearly her kind of music. **Roy Lichtenstein** (1923–1997), *Sound of Music* (1965).

In His Own Words

“The life of the arts is close to the center of a nation’s purpose, and is a test of the quality of a nation’s civilization.”

—John F. Kennedy

In Her Own Words

“Applause is the fulfillment. . . . Once you get on the stage, everything is right. I feel the most beautiful, complete, fulfilled.”

—Leontyne Price

The audience delights in a fireworks display during a performance of Tchaikovsky's *1812 Overture* at the Hollywood Bowl, in Los Angeles.



Lang Lang (b. 1982), shown here in concert, is one of the most prodigious and popular pianists performing today.



end of the relevant Listening Guides. In early times, composers did not specify whether a work should be sung or played on instruments; instead, performers adapted their interpretation based on the resources available at the time. Musical instruments have changed markedly over the centuries, and ensembles grew substantially in size through the 1800s as the modern orchestra came into being. Thus the timbres, or tone colors, of instruments and the overall sound of a group specializing in early music often differ from what you might hear in an orchestral concert. Although composers often suggest interpretive factors such as tempo and mood, these are abstract concepts that leave much leeway to performers. And while some contemporary composers are very specific about performance directions, others allow—indeed encourage—musicians to make their own unique and personal performance decisions. As you learn to discern musical details, take advantage of the varied interpretations we provide, and seek out others; the uniqueness of interpretation, especially in live performance, is at the root of musical expressiveness.

You already enjoy music—that's our starting point. Our goal is to help you expand, deepen, and intensify that great pleasure.

1

Melody: Musical Line

"It is the melody which is the charm of music, and it is that which is most difficult to produce. The invention of a fine melody is a work of genius."

—Joseph Haydn

KeyPoints

- A **melody** is a line, or the tune, in music.
- Each melody is unique in **contour** (how it moves up and down) and in **range**, or span of pitches.
- An **interval** is the distance between any two pitches. A melody that moves in small, connected intervals is **conjunct**, while one that moves by leaps is **disjunct**.
- The units that make up a melody are **phrases**; phrases end in resting places called **cadences**.
- A melody may be accompanied by a secondary melody, or a **countermelody**.

We tend to characterize any musical sound as one that has a perceivable and measurable **pitch**, determined by its **frequency** (number of vibrations per second). This pitch depends on the length or size of a vibrating object. For example, a short string vibrates faster (has a higher frequency) than a long string (which has a lower frequency). This is why a violin sounds higher than a cello: its strings are shorter overall. When a musician places a finger on the string of a violin or cello, the vibrating length of the string is shortened, and the pitch/frequency changes accordingly.

In the Western tradition, we represent each pitch with a symbol called a **note**, that's placed on a **staff** (five parallel lines; see Appendix I for more on notation). This symbol designates the frequency and the **duration**, or length of time, of the pitch. A pitch also has a certain **volume** (loudness or softness), and a distinct quality known as **tone color**, or **timbre**; this last quality distinguishes voices from instruments, a trumpet from a clarinet.

A **melody** is a succession of single pitches that we hear as a recognizable whole. We relate to the pitches of a melody in the same way we hear the words of a sentence—not singly but as an entire cohesive thought. We know a good melody when we hear one, and we recognize its power to move us, as do most musical cultures of the world.

Each melody goes up and down in its own distinct way, with one pitch being higher or lower than another; its **range** is the distance between the lowest and highest notes. This span can be very narrow, as in an easy children's song, or very wide, as in some melodies played on an instrument. Although this distance can be measured in the number of notes, we will describe range in approximate

Note and staff

Range

This apartment building in Vejle, Denmark, called *The Wave*, was designed by architect **Henning Larsen** to blend in with the surrounding environment of hills and fjord. Its wavelike shape resembles that heard in many melodies.



Contour terms—narrow, medium, or wide. The **contour** of a melody is its overall shape as it turns upward or downward or remains static. You can visualize a melody in a line graph, resulting in an ascending or descending line, an arch, or a wave (see “Melodic Examples” below).

Interval The distance between any two pitches is called an **interval**. Melodies that move principally by small intervals in a joined, connected manner (like *Joy to the World*) are called **conjunct**, while those that move in larger, disconnected intervals (like *The Star-Spangled Banner*) are described as **disjunct**. A tune’s movement need not necessarily remain the same throughout: it may, for example, begin with a small range and conjunct motion and, as it develops, expand its range and become more disjunct.

The Structure of Melody

Phrase The component units of a melody are like parts of a sentence. A **phrase** in music, as in language, is a unit of meaning within a larger structure. The phrase ends in a resting place, or **cadence**, which punctuates the music in the same way that a comma or period punctuates a sentence. The cadence may be inconclusive, leaving

Melodic Examples

Ode to Joy (Beethoven, Symphony No. 9)

Range: narrow (5-note span)

Contour: wavelike

Movement: conjunct

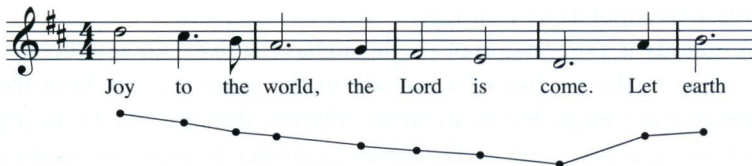


Joy to the World (Christmas carol)

Range: medium (8-note span)

Contour: descending

Movement: conjunct, then a few leaps

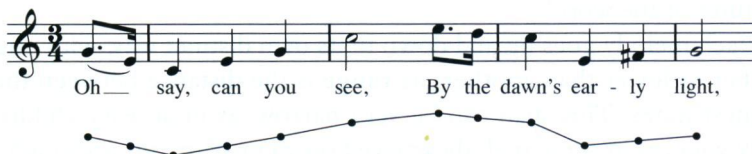


The Star-Spangled Banner (U.S. national anthem)

Range: wide (10-note span)

Contour: wavelike

Movement: disjunct (many wide leaps)



Melodic Phrases and Cadences

Amazing Grace (traditional hymn)

Four text phrases = four musical phrases

Final cadence = end of verse



Phrase 1
(incomplete,
turns downward)



Phrase 2
(incomplete, upward
inflection)



Phrase 3
(incomplete,
turns downward)



Phrase 4
(complete,
sense of rest)

you with the impression that more is to come, or it may sound final, giving you the sense that the melody has reached the end. The cadence is where a singer or instrumentalist pauses to draw a breath.

If the melody has words, the text lines and the musical phrases will usually coincide. Consider the well-known hymn *Amazing Grace* (above). Its four phrases, both the text and the music, are of equal length, and the **rhyme scheme** of the text (the way the last syllables in each line rhyme) is *a-b-a-b*. The first three cadences (at the end of each of the first three phrases) are inconclusive, or incomplete; notice the upward inflection like a question at the end of phrase 2. Phrase 4, with its final downward motion, provides the answer; it gives you a sense of closure.

In order to maintain the listener's interest, a melody must be shaped carefully, either by the composer or by the performer who invents it on the spot. What makes a striking effect is the **climax**, the high point in a melodic line, which usually represents a peak in intensity as well as in range. Sing through, or listen to, *The Star-Spangled Banner* and note its climax in the last stirring phrase, when the line rises to the words "O'er the land of the free."

More complex music can feature several simultaneous melodies. Sometimes the relative importance of one over the other is clear, and the added tune is called a **countermelody** (literally, "against a melody"). You may have heard the high-range countermelody played by the piccolos in the famous *Stars and Stripes Forever* march by John Philip Sousa (Chapter 51). In other styles, each melodic line is of seemingly equal importance. For much of the music we will study, melody is the most basic element of communication between the composer or performer and the listener. It's what we remember, what we whistle and hum.

Rhyme scheme



The Star-Spangled Banner
The Stars and Stripes Forever

Countermelody

2

Rhythm and Meter: Musical Time

"I got rhythm, I got music . . ."

—Ira Gershwin (1896–1983)

KeyPoints

- **Rhythm** is what moves music forward in time.
- **Meter**, marked off in **measures** (or **bars**), organizes the **beats** (the basic units) in music.
- Measures often begin with a strong **downbeat**.
- **Simple meters**—duple, triple, and quadruple—are the most common; each beat is divided into two.
- **Compound meters** divide each beat into three rather than two.
- Rhythmic complexities occur with **offbeats**, **syncopation**, and **polyrhythm**.
- Some music is **nonmetric**, with an obscured beat.

Beat

Meter and measure

Music is propelled forward by **rhythm**, the movement of music in time. Each individual note has a length, or duration—some long and some short. The **beat** is the basic unit of rhythm, a regular pulse that divides time into equal segments. Some beats are stronger than others; we perceive these as **accented** beats. In much of Western music, these strong beats occur at regular intervals—every other beat, every third beat, every fourth, and so on—and thus we hear groupings of two, three, or four. These organizing patterns are called **meters** and, in notation, are marked off in **measures** (or **bars**). Each measure contains a fixed number of beats, and the first beat in a measure usually receives the strongest accent. Measures are designated with **measure (bar) lines**, regular vertical lines through the staff (on which the music is notated; see Appendix I).

Meter organizes the flow of rhythm in music. In Western music, its patterns are simple, paralleling the alternating accents heard in poetry. Consider, for example, this well-known stanza by the American poet Robert Frost. Its meter alternates a strong beat with a weak one (this is iambic meter, da DUM, da DUM, da DUM, da DUM). A metrical reading of the poem will bring out the regular pattern of accented (') and unaccented (–) syllables:

Thē woods are love-ly, dark and deep,
But I have prom-is-es to keep,
And miles to go be-fore I sleep,
And miles to go be-fore I sleep.

Metrical Patterns

You will hear the regularly recurring patterns of two, three, or four beats in much of the music we will study. As in poetry, these patterns, or meters, depend on regular accents. The first accented beat of each pattern is known as a **downbeat**, referring to the downward stroke of a conductor's hand (see conducting patterns, p. 50). The most basic pattern, known as **duple meter**, alternates a strong downbeat with a weak beat: ONE two, ONE two; or, if you marched it, LEFT right, LEFT right.

Triple meter, another basic pattern, has three beats to a measure—one strong beat and two weak ones (ONE two three). This meter is traditionally associated with dances such as the waltz and the minuet.

Quadruple meter contains four beats to the measure, with a primary accent on the first beat and a secondary accent on the third. Although it is sometimes difficult to distinguish duple and quadruple meter, quadruple meter usually has a broader feeling.

In **simple meters** (simple duple, simple triple, and simple quadruple), the beat is divided into two (ONE-and, two-and; or ONE-and, two-and, three-and). However, in some patterns, the beat is divided into three; these are known as **compound meters**. The most common compound meter is **sextuple meter** (compound duple), which has six beats to the measure, or two main beats that each divides into three (ONE-and-a, TWO-and-a). Marked by a gently flowing effect, this pattern is often found in lullabies and nursery rhymes:

Lit-tle Bōy Blue, cōme blōw yōur hōrn, the
sheep's in the mēa-dōw, the cōw's in the cōrn.

The examples on page 12 illustrate the four basic patterns. Not all pieces begin on a downbeat (beat 1). For example, *Greensleeves*, in sextuple meter, begins with an **upbeat** (beat 6). (Notice that the Frost poem given earlier is in duple meter and begins with an upbeat on “the.”)

Rhythmic Complexities

Composers have devised a number of ways to keep the recurrent accent from becoming monotonous. The most common technique is **syncopation**, a deliberate upsetting of the normal pattern of accents. Instead of falling on the strong beat of the measure, the accent is shifted to a weak beat, or **offbeat** (in between the stronger beats). Syncopation is heard in many kinds of music, and is particularly characteristic of the African American dance rhythms out of which jazz developed. The example on page 12 illustrates the technique.

Syncopation is only one technique that throws off the regular patterns. A composition may change meters during its course; certain twentieth-century pieces shift meters nearly every measure. Another technique is the simultaneous use of rhythmic patterns that conflict with the underlying beat, such as “two against



The Gothic arches of the Doge's Palace in Venice clearly show duple subdivisions, much like simple meters in music.

Like meter in music, basic repeated patterns can be found in nature, such as in this close-up of a spiral leaf pattern.



Examples of Meters



ˈ = primary accent

˘ = secondary accent

— = unaccented beat

Duple meter: *Ah, vous dirai-je Maman* (Mozart), same tune as *Twinkle, Twinkle, Little Star*

Accents: Twin- k̄le, twin- k̄le, lit- tle star —
Meter: 1 2 | 1 2 | 1 2 | 1 2

Triple meter: *America* (patriotic song)

My coun- try 'tis — of thee,
1 2 3 | 1 2 3
Sweet land of li- ber-ty.
1 2 3 | 1 2 3

Quadruple meter: *Battle Hymn of the Republic* (Civil War song)

Glo- ry, glo-ry hal-le-lu- jah! — Glo- ry, glo-ry hal-le-lu- jah! —
1 2 3 4 | 1 2 3 4 | 1 2 3 4 | 1 2 3 4

Sextuple meter: *Greensleeves* (English folk song)

A- las — my love, — you do — me wrong, — to cast — me off — dis- cour- teous- ly, —
6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5 6 | 1 2 3 4 5

In His Own Words

“Rhythm and motion, not the element of feeling, are the foundations of musical art.”

—Igor Stravinsky

Syncopation



Swing Low, Sweet Chariot (African American spiritual):

Try singing or speaking this song in time with a regular beat.
(Note that the words in the first measure fall between the beats.)

Swing low, — sweet char- i- ot, —
1 2 | 1 2 |
comin' for to car-ry me home
1 2 | 1 2 |

three” or “three against four”—in a piano piece, for example, the left hand might play two notes to a beat, while the right hand plays three notes to the same beat. This is called **polyrhythm** (“many rhythms”) and characterizes the music of several world cultures, including drum ensembles from Ghana and Uganda (p. 412) and gamelan music of Indonesia (p. 398). Some non-Western cultures create meter through **additive** rhythms, where larger patterns are built from combinations like $2 + 3 + 3 (= 8)$, rather than recurring patterns of two or three. This is typical of Indian classical music (p. 187).

Nonmetric

Some music moves without any strong sense of beat or meter. We might say that such a work is **nonmetric** (this is the case in the chants of the early Christian church): the beat is veiled or weak, with the music moving in a floating rhythm that typifies certain non-Western styles.

Time is a crucial dimension in music. This is the element that binds together the parts within the whole: the notes within the measure and the measure within the phrase. It is therefore the most fundamental element of music.

3

Harmony: Musical Depth

"We have learned to express the more delicate nuances of feeling by penetrating more deeply into the mysteries of harmony."

—Robert Schumann

KeyPoints

- **Harmony** describes the vertical aspects of music: how notes (pitches) sound together.
- A **chord** is the simultaneous sounding of three or more pitches; chords are built from a particular **scale**, or sequence of pitches.
- The most common chord in Western music is a **triad**, three alternate pitches of a scale.
- Most Western music is based on **major** or **minor scales**, from which melody and harmony are derived.
- The **tonic** is the central pitch around which a melody and its harmonies are built; this principle of organization is called **tonality**.
- **Dissonance** is created by an unstable, or discordant, combination of pitches. **Consonance** occurs with a resolution of dissonance, producing a stable or restful sound.

To the linear movement of the melody, harmony adds another dimension: depth. **Harmony** is the simultaneous combination of sounds. It can be compared to the concept of perspective in artworks (see p. 14). Not all musics of the world rely on harmony, but it is central to most Western styles.

Harmony determines the relationships of intervals and chords. Intervals, the distance between any two notes, can occur successively or simultaneously. When three or more notes are sounded together, a **chord** is produced. Harmony describes a piece's chords and the progression from one chord to the next. It is the progression of harmony in a musical work that creates a feeling of order and unity.

The intervals from which chords and melodies are built are chosen from a particular collection of pitches arranged in ascending or descending order known as a **scale**. To the notes of the scale we assign syllables, *do-re-mi-fa-sol-la-ti-do*, or numbers, 1–2–3–4–5–6–7–8. An interval spanning eight notes is called an **octave**.

do	re	mi	fa	sol	la	ti	do
1	2	3	4	5	6	7	8
 							
octave							

Chord

Scale
Octave

The most common chord in Western music, a particular combination of three pitches, is known as a **triad**. Such a chord may be built on any note of the scale by combining every other note. For example, a triad built on the first pitch of a scale

Triad

Example of Harmony

Camptown Races (Stephen Foster)

Melody

Harmony (chords)

Scale

horizontal plane (melody)

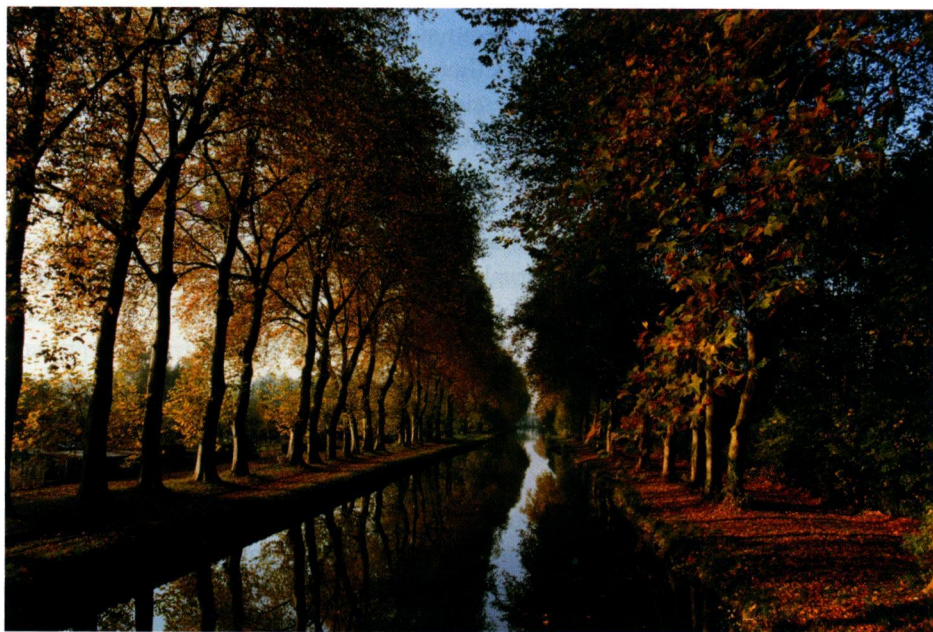
vertical plane (harmony)

consists of the first, third, and fifth pitches of that scale (*do-mi-sol*); on the second pitch, steps 2-4-6 (*re-fa-la*); and so on. The triad is a basic formation in most music we know. In the example above, the melody of *Camptown Races* is harmonized with triads. You can see at a glance how melody is the horizontal aspect of music, while harmony, comprising blocks of notes (the chords), constitutes the vertical. Melody and harmony do not function independently of one another. On the contrary, the melody suggests the harmony that goes with it, and each constantly influences the other.

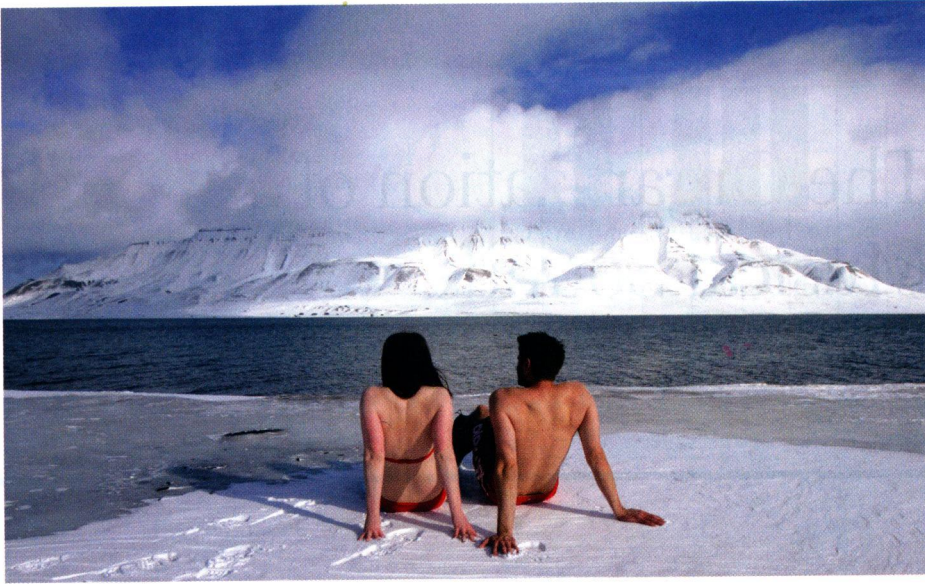
The Organization of Harmony

Tonic

In all music, regardless of the style, certain notes assume greater importance than others. In most Western music, the first note of the scale, *do*, is considered the **tonic** and serves as a home base around which the others revolve and to which they ultimately gravitate. We observed this principle at work earlier with *Amazing Grace* (p. 9): the tune does not reach a final cadence, or stopping point,



Harmony lends a sense of depth to music, as perspective does in this photograph, by **Fernand Ivaldi**, of a view down a tree-lined canal in France.



Just as dissonance provides tension in music, this image of global researchers sunbathing on the edge of a frozen fjord in the Arctic to emphasize the dramatic rate of global warming is discordant to the eye.

on the tonic note until its last phrase. It is this sense of a home base that helps us recognize when a piece of music ends.

The principle of organization around a central note, the tonic, is called **tonality**. The scale chosen as the basis of a piece determines the identity of the tonic and the key of the piece. Two different types of scales predominate in Western music written between about 1650 and 1900: major and minor. Each scale has a distinct sound because of its unique combination of intervals, as we will see in Chapter 4.

Tonality

Consonance and Dissonance

The movement of harmony toward resolution is the dynamic force in Western music. As music moves in time, we feel moments of tension and release. The tension results from **dissonance**, a combination of notes that sounds unstable, sometimes harsh, and in need of resolution. Dissonance introduces conflict into music in the same way that suspense creates tension in drama. Dissonance resolves in **consonance**, an agreeable-sounding combination of notes that provides a sense of relaxation and fulfillment. Each complements the other, and each is a necessary part of the artistic whole.

Harmony appeared much later historically (around 900) than melody, and its development took place largely in Western music. In many Asian cultures, harmony is relatively simple, consisting of a single sustained pitch, called a **drone**, against which melodic and rhythmic complexities unfold. This harmonic principle also occurs in some European folk music, where, for example, a bagpipe might play one or more accompanying drones to a lively dance tune.

Drone

Our system of harmony has advanced steadily over the past millennium, continually responding to new needs. Composers have tested the rules, changing our notion of what sounds consonant, as they have experimented with innovative sounds and procedures. Yet their goal remains the same: to impose order on sound, organizing the pitches so that we perceive a unified idea.

4

The Organization of Musical Sounds

"If only the world could feel the power of harmony."

—W. A. Mozart

KeyPoints

- An **octave** is the interval spanning eight notes of the scale. In Western music, the octave is divided into twelve **half steps**; two half steps make a **whole step**.
- The **chromatic scale** is made up of all twelve half steps, while a **diatonic scale** consists of seven whole and half steps whose patterns form **major** and **minor scales**.
- A **sharp** (#) is a symbol that raises a pitch by a half step; a **flat** (b) lowers a pitch by a half step.
- Other scale types are found around the world, sometimes using **microtones**, which are intervals smaller than half steps.
- The **tonic chord**, built on the first scale note, is the home base to which **active chords** (**dominant** and **subdominant**) need to resolve.
- Composers can shift the pitch level (**key**) of an entire work (**transposition**), or change the key during a work (**modulation**).

Here we consider how melody and harmony, two of the essential building blocks of musical compositions, function together to construct a musical system, both in the West and elsewhere.

Octave Pitches are named using the first seven letters of the alphabet (A through G), which just start over again when you reach an octave. As noted earlier, an **octave** is an interval spanning eight notes of the scale. When we hear any two notes an octave apart, we recognize that they sound "the same." (These two notes take the same pitch name: for example, a C and the C an octave higher.)

Half step One important variable in the different languages of music around the world is the way the octave is divided. In Western music, it is divided into twelve equal semitones, or **half steps**; from these are built different kinds of scales, which have constituted the basis of this musical language for nearly four hundred years. Some

Microtone non-Western music features intervals even smaller than half steps, called **microtones**: for example, you can hear "bent," or inflected, pitches in Indian sitar music (p. 187) and microtonal sliding between pitches in Islamic chant (p. 74).

The Chromatic Scale

The twelve half steps that make up the octave constitute what is known as the **chromatic scale**. You can see these twelve half steps on the keyboard (p.17),

Names of Notes and Intervals

2 half steps = 1 whole step
 C–C# → = 1 half step
 C#–D → = 1 half step
 C–D → = 1 whole step
 12 half steps = 1 octave

D $\flat$	E $\flat$		G $\flat$	A $\flat$	B $\flat$		
C $\sharp$	D $\sharp$		F $\sharp$	G $\sharp$	A $\sharp$		
do	re	mi	fa	sol	la	ti	do
C	D	E	F	G	A	B	C
1	2	3	4	5	6	7	8

octave

Chromatic scale



counting all the white and black keys from C to the C above it. Virtually all Western music, no matter how intricate, is made up of the same twelve pitches and their duplications in higher and lower octaves.

You will notice that the black keys on the piano are named in relation to their white-key neighbors. The black key between C and D can be called C-sharp ($\sharp$) or D-flat ($\flat$), depending on the context of the music. This plan applies to all the black keys. Thus, a **sharp** raises a note by a half step, and a **flat** lowers a note a half step. The distance between C and D is two half steps, or one **whole step**.

The Major Scale

Chapter 3 introduced the notion that certain notes in music assume greater importance than others; in Western music, the first pitch of the scale, the tonic, is the home base to which the music gravitates. Two main scale types—major and minor—function within this organizational system known as tonality. When you listen to a composition in the **key** of C major, you hear a piece built around the central tone C, using the harmonies formed from the C major scale. Tonality is the basic harmonic principle at work in most Western music written from around 1600 to 1900 and in most popular music.

The **major scale** is the most familiar sequence of pitches. You can produce a C major scale (*do-re-mi-fa-sol-la-ti-do*) by playing only the white keys on the piano from one C to the next C. Looking at the keyboard above, you will see that there is no black key between E and F (*mi-fa*) or between B and C (*ti-do*). These notes are a half step apart, while the other white keys are a whole step apart. Consequently, a major scale is created by a specific pattern of whole (W) and half (H) steps—(W–W–H–W–W–H)—and can be built with this pattern starting on any pitch, even a black key.

Within each major scale are certain relationships based on tension and resolution. One of the most important is the thrust of the seventh pitch to the eighth

In His Own Words

“There are only twelve tones. You must treat them carefully.”

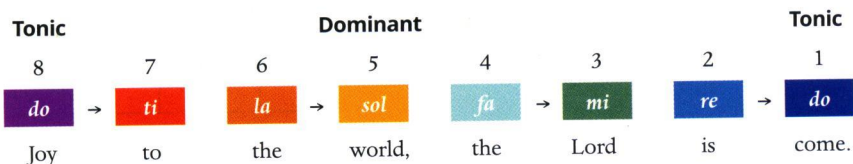
—Paul Hindemith

Key

(*ti* resolving to *do*). Similarly, we feel resolution when *re* moves to *do*; *fa* gravitates to *mi*; and *la* descends to *sol*. You can hear some of these relationships at work in the beginning of the well-known carol *Joy to the World*. It starts on the tonic note (*do*) (“Joy”), then descends and pauses on the **dominant** note (*sol*) (“world”), after which it continues downward, feeling a strong pull to the final *do* (on “come”; see melody on p. 8 and chart below).

Dominant

Speaker icon
Joy to the World



Most important of all, the major scale defines two poles of traditional harmony: the tonic, the point of ultimate rest; and the dominant, which represents the active harmony. Tonic going to dominant and returning to tonic is a basic progression of harmony in Western music. Songs and pieces in a major key, like this carol, generally sound cheerful or triumphant to our ears (more a cultural convention than an absolute trait).

The Minor Scale

The **minor scale** sounds quite different from the major. One reason is that it has a lowered, or flatted, third note. Therefore, in the scale of C minor, there is an E-flat rather than the E-natural (white-key E) of the major scale; the interval C to E-flat is smaller than the interval C to E. Minor-key pieces sound sadder, darker than major-key. In the famous Bach theme to *The Art of Fugue*, you hear the smaller third interval right at the onset, as the melody outlines this interval (a minor third), then descends in a minor scale. The intervals of the minor scale (W–H–W–W–H–W–W) are shown in the table opposite.

Speaker icon
The Art of Fugue

Diatonic vs. Chromatic

Music in a major or minor key focuses on the seven notes of the respective scale and is considered **diatonic**. In diatonic music, both the melody and the harmony are firmly rooted in the key. But some compositions introduce other notes that are foreign to the scale, drawing from the full gamut of the twelve half steps that span the octave. These works are considered **chromatic** (meaning “color”). Romantic-era composers explored the possibilities of chromaticism to charge their music with emotion. In contrast, music of the Baroque and Classical eras is largely diatonic, centering on a tonic note and its related harmonies.

Other Scale Types

The Western musical system is only one way to structure music. The musical languages of other cultures often divide the octave differently, producing different scale patterns. Among the most common is the **pentatonic**, or five-note, scale, used in some African, Asian, and Native American musics. (*Amazing Grace*, on p.

Pattern of Major and Minor Scales

Scale steps:

1 2 3 4 5 6 7 8

tonic

C D E F G A B C

do re mi fa sol la ti do

C major scale

Intervals:

whole whole half whole whole whole half

Scale steps:

1 2 3 4 5 6 7 8

tonic

C D E $\flat$ F G A $\flat$ B $\flat$ C

C minor scale

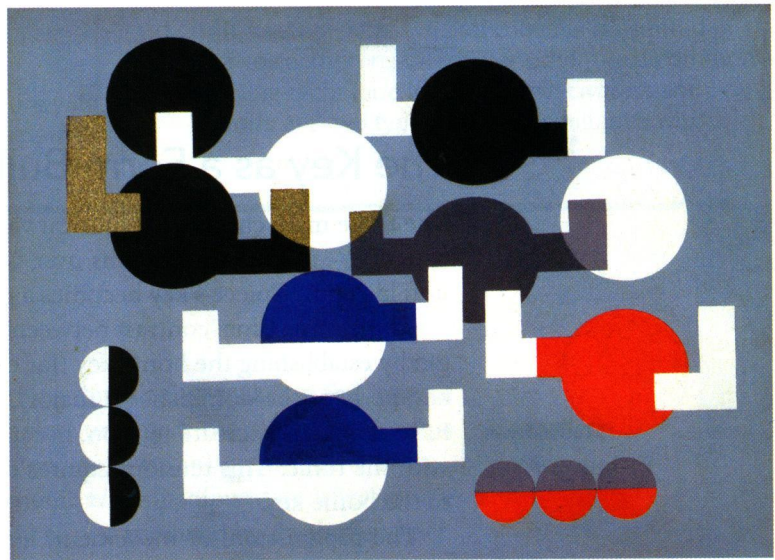
Intervals:

whole half whole whole half whole whole

8, is a pentatonic, folk-like melody.) Another non-Western scale type is **tritone**, a three-note pattern also found in the music of some African cultures.

Some scales are not easily playable on Western instruments because they employ intervals smaller than the half step. Such intervals, known as **microtones**, may sound “off-key” to Western ears. One way of producing microtonal music is by an **inflection** of a pitch, making a brief microtonal dip or rise from the original pitch; this technique, similar to that of the “blue note” in jazz (see Chapter 56), makes possible a host of subtle pitch changes.

The musical system and the notes chosen in that system determine the sound and character of each work, whether classical, popular, or traditional. They are what make Western music sound familiar to us and why sometimes the music of other cultures may sound foreign.



Sophie Taeuber-Arp (1889–1943), *Composition in Circles and Overlapping Angles* (1930). The overlapping and repeated shapes in this artwork can be compared, in music, to new pitch levels or to modulations to another key.

The Major-Minor System

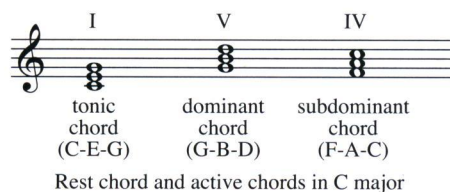
Just as melodies have inherent active and rest notes, so do the harmonies supporting them. The three-note chord, or triad, built on the first scale step is called the **tonic**, or **I chord**, and serves as a point of rest. This **rest chord** is counterposed against other chords, which are active. The **active chords** in turn seek to be completed, or resolved, in the **rest chord**—the dynamic force in Western music, providing a forward direction and goal.

The fifth scale step (*sol*), the **dominant**, forms the chief active chord (V), which brings a feeling of restlessness and seeks to resolve to the tonic. The triad built on

Tonic (rest) chord (I)

Dominant (active) chord (V)

Subdominant chord (IV) the fourth scale step (*fa*) is known as the **subdominant** (IV). The movement from the subdominant to the tonic (IV to I) is familiar from the “Amen” sung at the close of many hymns.



These three basic triads are enough to harmonize many simple tunes. The Civil War song *Battle Hymn of the Republic* is a good example:

🔊
Glo-ry, glory! Hallelu-jah! Glo-ry, glory! Halle-lu-jah!

I
IV
I

Glo-ry, glory! Hallelu-jah! His truth is marching on.

I
IV
V
I

Battle Hymn of the Republic

The Key as a Form-Building Element

The three main chords of a musical work—tonic (I), dominant (V), and subdominant (IV)—are the foundations over which melodies and harmonic progressions unfold. Thus, a piece’s key becomes a prime factor for musical unity.

At the same time, contrast between keys adds welcome variety. Composers begin by establishing the home key (for example, C major), then change to a related key, perhaps the dominant (G major), through a process known as **modulation**. In so doing, they create tension, because the dominant key is unstable compared with the tonic. This tension requires resolution, which is provided by the return to the home key.

Modulation

The progression, or movement, from home key to contrasting key and back outlines the basic musical pattern of statement-departure-return. The home key provides unity; the foreign key ensures variety and contrast.

The twelve major and twelve minor keys may be compared to rooms in a house, with the modulations equivalent to corridors leading from one to the other. A composer establishes the home key, then shapes the passage of modulation (the “corridor”) into a key area that is not far away from the starting point. Alternately, composers may take an entire work and **transpose** it to a new key (making a transposition). This is convenient when a song’s original key is too high or low to sing or play easily. You could begin on a different pitch and shift all the other pitches a uniform distance. In this way, the same song can be sung in various keys by differing voice ranges (soprano, alto, tenor, or bass).

Transposition

Although we are not always conscious of key centers and chord progressions while listening to music, these basic principles are deeply ingrained in our responses. We perceive and react to the tension and resolution provided by the movement of harmony, and we can sense how composers have used the harmonic system to give a coherent shape and meaning to their works.

5

Musical Texture

"The composer . . . joins Heaven and Earth
with threads of sound."

—Alan Hovhaness (1911–2000)

KeyPoints

- **Texture** refers to the interweaving of the melodic lines with harmony.
- The simplest texture is **monophony**, a single voice or line without accompaniment.
- **Polyphony** describes a many-voiced texture with different melodic lines, based on **counterpoint**—one line set against another.
- **Homophony** occurs when one melodic voice is prominent over the accompanying lines or voices.
- **Imitation**—when a melodic idea is presented in one voice, then restated in another—is a common unifying technique in polyphony; **canons** and **rounds** are two types of strictly imitative works.

Types of Texture

Melodic lines may be thought of as the various threads that make up the musical fabric, or the **texture**, of a piece. The simplest texture is **monophony**: a single voice. ("Voice" refers to an individual part or line, even in instrumental music.) Here, the melody is heard without any harmonic accompaniment or other melodic lines; it's you singing in the shower. It may be accompanied by rhythm and percussion instruments that embellish it, but interest is focused on the single melodic line rather than on any harmony. Until about a thousand years ago, the Western music we know about was monophonic, as some music of the Far and Middle East still is today; we will hear an example of monophonic Islamic chant, sung throughout the Muslim world, in the Encounter on page 74.

Another common texture in non-Western cultures is **heterophony**, in which several musicians sing or play the same musical line (as in monophony), but each one varies some element—maybe a pitch or rhythm—so that they're "out of sync" with each other. These are usually subtle, nuanced variations that develop from individual expression. To Western ears, heterophony might sound as though the musicians are having trouble staying together (see the discussion of early American hymn singing in Chapter 25). Jazz (for example, the New Orleans jazz favorite *When the Saints Go Marching In*) and spirituals often depend on heterophonic texture—musicians' individual interpretations result in simultaneous elaborations of the same melody.

Polyphony ("many-voiced") describes a texture in which two or more different melodic lines are combined, thus distributing melodic interest among all the parts. Polyphonic texture is based on **counterpoint**; that is, one musical line set against another.

Monophony

Heterophony



*When the Saints
Go Marching In*

Polyphony

Examples of Musical Texture



Monophonic: One melodic line, no accompaniment.

Hildegard of Bingen: *Kyrie* (chant):



Polyphonic: Two independent melodic lines combined.

Bach: Organ chorale prelude *Jesu, Joy of Man's Desiring* (example begins 20 seconds into the recording):



Homophonic: One melody with subordinate accompaniment.

Haydn: *Symphony No. 94 (Surprise), II:*



Homorhythmic: A type of homophonic texture in which all voices move together, with the same words.

Handel: "Hallelujah Chorus," from *Messiah*:

Rhythm				
Soprano	Hal - le-lu-jah,	Hal - le-lu-jah,	Hal-le -	lu - jah,
Alto	Hal - le-lu-jah,	Hal - le-lu-jah,	Hal-le -	lu - jah,
Tenor	Hal - le-lu-jah,	Hal - le-lu-jah,	Hal-le -	lu - jah,
Bass	Hal - le-lu-jah,	Hal - le-lu-jah,	Hal-le -	lu - jah,

Homophony

In perhaps the most commonly heard texture, **homophony**, a single voice takes over the melodic interest, while the accompanying lines are subordinate. Normally, the accompanying lines become blocks of harmony, the chords that support, color, and enhance the principal line. Homophonic texture is heard when a pianist plays a melody in the right hand while the left sounds the chords, or when a singer or violinist carries the tune against a harmonic accompaniment on the piano. Ho-



As in music, line and texture are the focus of this Kente cloth from Ghana, in Africa.

mophonic texture, then, is based on harmony, just as polyphonic texture is based on counterpoint. The differences between the two can be subtle, depending on whether a listener perceives additional musical lines as equal or subordinate to a primary melody.

Finally, there is **homorhythm**, a kind of homophony where all the voices or lines move together in the same rhythm. When there is text, all words are clearly sounded together. Like homophony, it is based on harmony moving in synchronization with a melody.

Homorhythm

A composition need not use one texture exclusively throughout. For example, a large-scale work may begin by presenting a melody with accompanying chords (homophony), after which the interaction of the parts becomes increasingly complex as more independent melodies enter (creating polyphony).

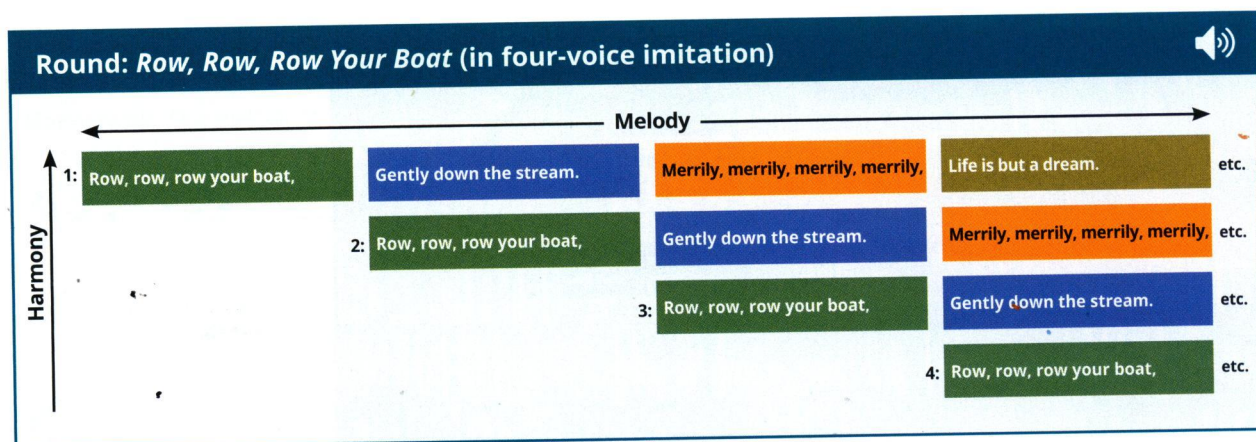
We have noted that melody is the horizontal aspect of music, while harmony is the vertical. Comparing musical texture to the cross weave of a fabric makes the interplay of the parts clear. The horizontal threads, the melodies, are held together by the vertical threads, the harmonies. Out of their interaction comes a texture that may be light or heavy, coarse or fine.

Contrapuntal Devices

When several independent lines are combined (in polyphony), one method that composers use to give unity and shape to the texture is **imitation**, in which a melodic idea is presented in one voice and then restated in another. While the imitating voice restates the melody, the first voice continues with new material. Thus, in addition to the vertical and horizontal threads in musical texture, a third, diagonal line results from imitation (see example on p. 24).

Imitation

The duration of the imitation may be brief or it may last the entire work. A



Canon and round

strictly imitative work is known as a **canon**; and the simplest and most familiar form of canon is a **round**, in which each voice enters in succession with the same melody that can be repeated endlessly. Well-known examples include *Row, Row, Row Your Boat* and *Frère Jacques* (*Are You Sleeping?*). In the example above, the round begins with one voice singing “Row, row, row your boat,” then another voice joins it in imitation, followed by a third voice and finally a fourth, creating a four-part polyphonic texture.

Musical Texture and the Listener

Different textures require different kinds of listening. Monophonic music has only one focus—the single line of melody unfolding in real time. In homophonic music, the primary focus is on the main melody with subordinate harmonies as accompaniment. Indeed, much of the music we have heard since childhood—including traditional and popular styles—consists of melody and accompanying chords. Homorhythmic texture is easily recognizable as well, in its simple, vertical conception and hymnlike movement; the melody is still the most obvious line. Polyphonic music, with several independent melodies woven together, requires more experienced listening, but a good place to start is the round, the simplest polyphonic texture. With practice, you can hear the roles of individual voices and determine how they relate to each other, providing texture throughout a musical work.

6

Musical Form

"The principal function of form is to advance our understanding. It is the organization of a piece that helps the listener to keep the idea in mind, to follow its development, its growth, its elaboration, its fate."

—Arnold Schoenberg

KeyPoints

- **Form** is the organizing principle in music; its basic elements are repetition, contrast, and variation.
- **Strophic form**, common in songs, features repeated music for each stanza of text. In **through-composed form**, there are no large repeated sections.
- **Binary form (A-B)** and **ternary form (A-B-A)** are basic structures in music.
- A **theme**, a melodic idea in a large-scale work, can be broken into small, component fragments
- (**motives**). A **sequence** results when a motive is repeated at a different pitch.
- Many cultures use **call-and-response** (or **responsorial**) music, a repetitive style involving a soloist and a group. Some music is created spontaneously in performance, through **improvisation**.
- An **ostinato** is the repetition of a short melodic, rhythmic, or harmonic pattern.
- Large-scale compositions, such as symphonies and sonatas, are divided into sections, or **movements**.

Form refers to a work's structure or shape, the way the elements of a composition have been combined by the composer to make it understandable to the listener. In all the arts, a balance is required between unity and variety, symmetry and asymmetry, activity and rest. Nature too has embodied this balance in the forms of plant and animal life and in what is perhaps the supreme achievement—the human form.

Structure and Design in Music

Music of all cultures mirrors life in its basic elements of **repetition** and **contrast**, the familiar and the new. Repetition fixes the material in our minds and satisfies our need for the familiar, while contrast stimulates our interest and feeds our desire for change. Every kind of musical work, from a nursery rhyme to a symphony, has a conscious structure. One of the most common in vocal music, both popular and classical, is **strophic form**, in which the same melody is repeated with each stanza of the text, as for a folk song or carol (*Silent Night*). In this structure, while the music within a stanza offers some contrast, its repetition binds the song together. The direct opposite of strophic form in a song would be **through-composed**

Repetition and contrast

Strophic form

By Andy Warhol: © 2017 The Andy Warhol Foundation for the Visual Arts, Inc. / Artists Rights Society (ARS), New York.



This famous painting by **Andy Warhol** (1928–1987), *32 Campbell's Soup Cans*, illustrates the reliance of artists on the basic elements of repetition and variation.

In His Own Words

“Improvisation is not the expression of accident but rather of the accumulated yearnings, dreams, and wisdom of our very soul.”

—Yehudi Menuhin

Theme

Thematic development

form, where no main section of the music or text is repeated.

One kind of form that falls *between* repetition and contrast is **variation**, where some aspects of the music are altered but the original is still recognizable. You hear this formal technique when you listen to a new arrangement of a well-known popular song: the tune is recognizable, but many features of the known version are changed.

While all musical structures are based in one way or another on repetition and contrast, the forms are not fixed molds

into which composers pour their material. What makes each piece of music unique is the way the composer adapts a general plan to create a wholly individual combination. And performers sometimes participate in shaping a composition. In works based mostly on **improvisation** (pieces created spontaneously in performance—typical of jazz, rock, and certain non-Western styles), repetition, contrast, and variation all play a role. We will see that in jazz, musicians organize their improvised melodies within a pre-established harmonic pattern, time frame, and melodic outline that is understood by all the performers. And in Indian sitar music (see p. 187), improvisation is a refined and classical art, where the seemingly free and rhapsodic spinning out of the music is tied to a prescribed musical process that results in a lacework of variations. Thus, even pieces created on the spot are balanced by structural principles.

Binary and Ternary Form

Two basic structures are widespread in art and in music. **Binary** (two-part) **form** is based on a statement and a departure, without a return to the opening section. **Ternary** (three-part) **form** extends the idea of statement and departure by bringing back the first section. Formal patterns are generally outlined with letters: binary form as **A-B** and ternary form as **A-B-A** (illustrated in the chart on p. 27).

Both two-part and three-part forms are found in short pieces such as songs and dances. The longer ternary form, with its logical symmetry and its balance of the outer sections against the contrasting middle one, constitutes a clear-cut formation that is favored by architects and painters as well as composers.

The Building Blocks of Form

When a melodic idea is used as a building block in the construction of a larger work, we call it a **theme**. The introduction of a theme and its elaboration are the essence of musical thinking. This process of growth has its parallel in writing, when an idea, a topic sentence, is stated at the beginning of a paragraph and enlarged upon and developed by the author. Just as each sentence leads logically from one to the next, every musical idea takes up where the one before left off and continues convincingly to the next. The expansion of a theme, achieved by varying its melody, rhythm, or harmony, is considered **thematic development**. This is

Binary and Ternary Form



Binary form = A-A-B-B: Greensleeves (English folk song)

Statement **A** (repeated with varied final cadences):

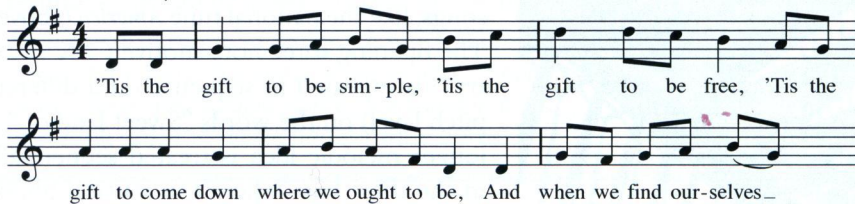


Departure **B** (with different cadences):

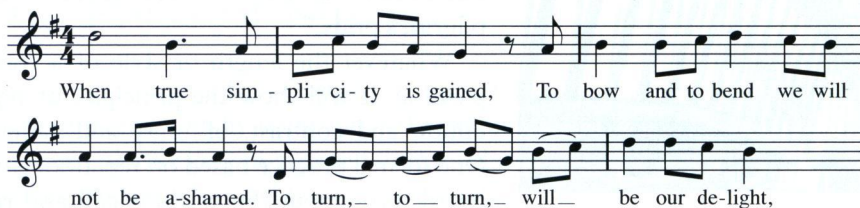


Ternary form = A-B-A: Simple Gifts (Shaker hymn)

Statement **A** (repeated):



Departure **B** (ending resembles **A** with new text):



Repeated statement **A**:



one of the most important techniques in music and requires both imagination and craft on the part of the creator.

Thematic development is generally too complex a process for short pieces, where a simple contrast between sections and modest expansion of material usually supply the necessary continuity. But it's necessary in larger forms of music, where it provides clarity, coherence, and logic.

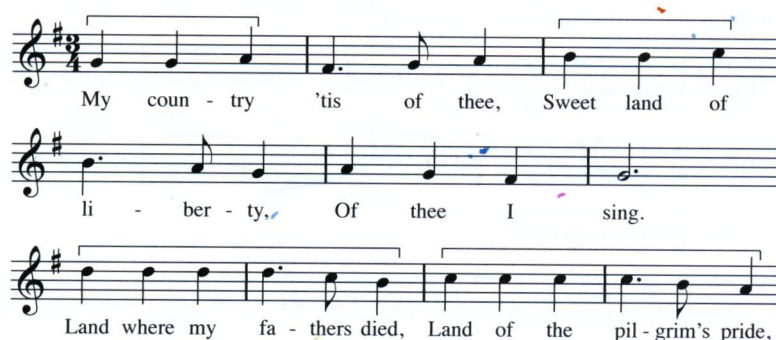
Certain procedures help the music flow logically. The simplest is repetition, which may be either exact or varied. Or the idea may be restated at a higher or lower pitch level; this restatement is known as a **sequence**. Within a theme, a small fragment that forms a melodic-rhythmic unit is called a **motive**. Motives are the cells of musical growth, which, when repeated, varied, and combined into new patterns, impart the qualities of evolution and expansion. These musical

Sequence and motive

Motive and Sequences



America (also *God Save the Queen*):



(Brackets show repeated **motives** at different pitch levels, or in **sequences**.)



The Gare de Saint-Exupéry, a modern train station in Lyon, France, designed by the Spanish architect **Santiago Calatrava**, shows the importance of symmetrical patterns in architecture.

Movement

building blocks can be seen even in simple songs, like the national tune *America* (above). The opening three-note motive (“My country”) is repeated in sequence (at a different pitch level) on the words “Sweet land of.” A longer melodic idea is treated sequentially in the third line, where the musical phrase “Land where my fathers died” is repeated one note lower on the words “Land of the pilgrim’s pride.”

Whatever the length or style of a composition, it will show the principles of repetition and contrast, of unity and variety. One formal practice based on repetition and heard throughout the world is **call and response**, or **responsorial music**. In this style

of performance, predominant in early Western church music and also in the music of African, Native American, and African American cultures, a singing leader is imitated or answered by a chorus of followers. This is a typical singing style for spirituals and gospel music, as you will hear in a performance of one of the most famous spirituals of all time, *Swing Low, Sweet Chariot* (Chapter 50).

Another widely used procedure linked to the principle of repetition is **ostinato**, a short musical pattern—melodic, rhythmic, or harmonic—that is repeated throughout a work or a major section of a piece. One well-known work that uses this technique is the Pachelbel *Canon in D*, in which rich string lines unfold gradually over an ever-present bass pattern. This unifying technique is especially prevalent in popular styles such as blues, jazz, rock, and rap, which rely on repeated harmonies that provide a scaffolding for musical development.

Music composition is an organic form in which the individual notes are bound together within a phrase, the phrases within a theme, the themes within a section, the sections within a **movement** (a complete, comparatively independent division of a large-scale work), and the movements within the work as a whole (like a symphony)—just as a novel binds together the individual words, phrases, sentences, paragraphs, and chapters into a cohesive whole.

7

Musical Expression: Tempo and Dynamics

"Ah, music . . . a magic beyond all we do here!"

—Albus Dumbledore, Headmaster,
Hogwarts School of Witchcraft and Wizardry

KeyPoints

- **Tempo** is the rate of speed, or pace, of the music.
- We use Italian terms to designate musical tempo: some of the most familiar are *allegro* (fast), *moderato* (moderate), *adagio* (quite slow), *accelerando* (speeding up), and *ritardando* (slowing down).
- **Dynamics** describe the volume, or how loud or soft the music is played; Italian terms for dynamics include *forte* (loud) and *piano* (soft).
- Composers indicate tempo and dynamics as a means of expression.

The Pace of Music

Most Western music has steady beats underlying the movement; whether these occur slowly or rapidly determines the **tempo**, or rate of speed, of the music. Consequently, the flow of music in time involves meter patterns (the grouping and emphasis of the beats) and tempo.

Tempo also carries emotional implications. We hurry our speech in moments of agitation or eagerness. Vigor and gaiety are associated with a brisk speed, just as despair usually demands a slow one. Since music moves in time, its pace is of prime importance, drawing from listeners responses that are both physical and psychological.

Because of the close connection between tempo and mood, tempo markings indicate the character of the music as well as the pace. The markings, along with other indications of expression, are traditionally given in Italian. This practice reflects the domination of Italian music in Europe from around 1600 to 1750, when performance directions were established. Here are some of the most common **tempo markings**:

Tempo markings

grave: solemn (very, very slow)

largo: broad (very slow)

adagio: quite slow

andante: a walking pace

moderato: moderate

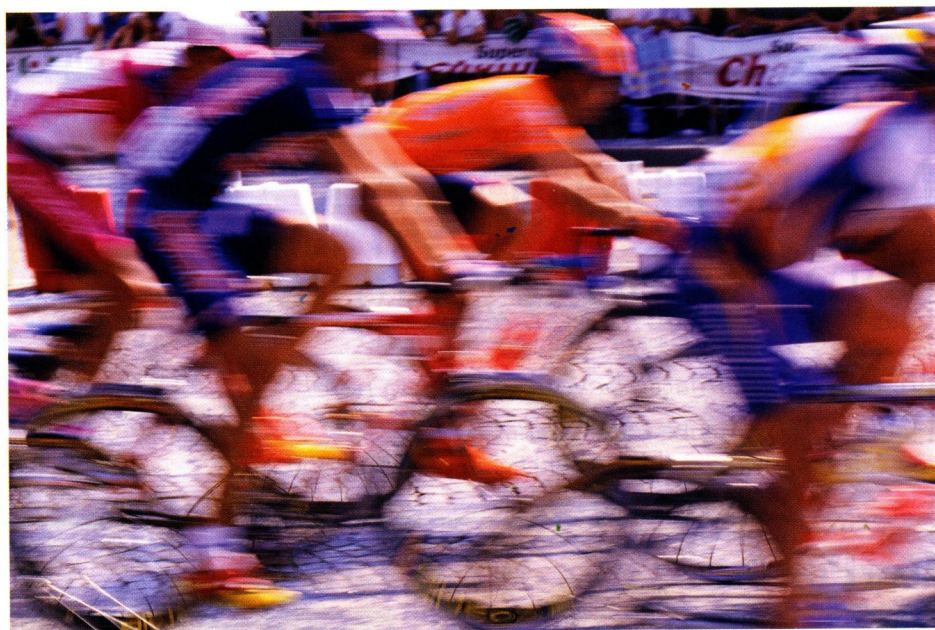
allegro: fast (cheerful)

vivace: lively

presto: very fast

You frequently encounter modifiers such as *molto* (very), *meno* (less), *poco* (a little), and *non troppo* (not too much). Also important are terms indicating a change

Speed and movement are easily perceived in this photograph of the 2002 Tour de France. Here, the cyclists are racing toward the finish on Paris's famous Avenue des Champs-Élysées.



of tempo, among them *accelerando* (getting faster), *ritardando* (holding back, getting slower), and *a tempo* (in time, or returning to the original pace).

In His Own Words

“Any composition must necessarily possess its unique tempo. . . . A piece of mine can survive almost anything but a wrong or uncertain tempo.”

—Igor Stravinsky

Loudness and Softness

Dynamics denote the volume (degree of loudness or softness) at which music is played. Like tempo, dynamics can affect our emotional response. The main dynamic indications, listed below, are based on the Italian words for soft (*piano*) and loud (*forte*).

pianissimo (**pp**): very soft

piano (**p**): soft

mezzo piano (**mp**): moderately soft

mezzo forte (**mf**): moderately loud

forte (**f**): loud

fortissimo (**ff**): very loud

Directions to change the dynamics, either suddenly or gradually, are also indicated by words or signs:

crescendo (<): growing louder

decrescendo or *diminuendo* (>): growing softer

Tempo and Dynamics as Elements of Expression

The composer adds markings for tempo and dynamics to help shape the expressive content of a work. These expression marks increased in number during the late eighteenth and nineteenth centuries, when composers tried to make their inten-

Tempo and Dynamics in a Music Score



Beethoven: **Symphony No. 5**, opening:



Tempo: Fast (*Allegro*), with vigor (*con brio*)

Dynamics: Very loud (*fortissimo*), then soft (*piano*)

tions known ever more precisely; by the early twentieth century, few decisions were left to the performer at all.

If tempo and dynamics are the domain of the composer, what is the role of performers and conductors in interpreting a musical work? Performance directions can be somewhat imprecise—what is loud or fast to one performer may be moderate in volume and tempo to another. Even when composers give precise tempo markings in their scores (the exact number of beats per minute), performers have the final say in choosing a tempo that best delivers the message of the music.

In His Own Words

“Voices, instruments, and all possible sounds—even silence itself—must tend toward one goal, which is expression.”

—C. W. Gluck



Dynamics in music may be compared to the light and shade in this photograph of the sun shining through a forest of trees.

8

Text and Music

"Let the words be the mistress of the music, not its slave."

—Claudio Monteverdi

KeyPoints

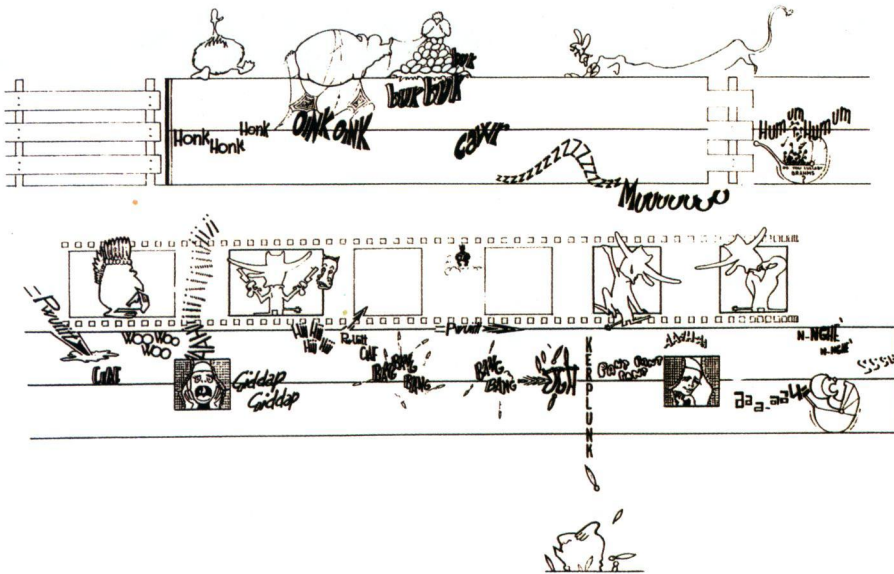
- A song's text can convey the meaning of the words or simply sounds. Some composers use the voice as an instrument, as in **vocalise** (melodies sung on a neutral sound like "ah") or **scat-singing** in jazz (to made-up syllables).
- **Secular** (nonreligious) music is generally sung in the language of the people (the **vernacular**). Much Western **sacred** (religious) music is in **Latin**, the language of the Roman Catholic Church.
- Composers may set an already-written text to music, or, as in opera and musical theater, work together with lyricists as a songwriting team.
- Each syllable of a song text may get one note (**syllabic** setting); one syllable may get a few notes (**neumatic** setting); or one syllable may get many notes (**melismatic** setting).
- Composers use **word-painting** to emphasize the text, perhaps with a drawn-out word over many notes (**melisma**) or with a melody that pictorializes a word.

Today, thanks largely to iTunes, many people consider "song" synonymous with any musical selection, with or without words. Though the term correctly refers to a union of music and words—something that is sung—the original Greek word for "music," *mousikas*, implied a union of melody, language, and movement. The Greek philosopher Plato considered music without words to be lacking in artistic taste, and it was through language that Greek listeners reacted to the mood of a composition.

Singing without words

There are many facets of text and music we can consider here. For starters, does the text communicate something that can be understood, or are the syllables **nonlexical** (nonsensical)? Examples of nonlexical syllables are "Na na na na, na na na na, na na na na, hey Jude" (from the Beatles' *Hey Jude*) and "Zip-a-dee-doo-dah, zip-a-dee-ay" (from Disney's *Song of the South*). Jazz singers often launch into **scat-singing**, a vocal improvisation using wordless vocables, like "Shoo-be-doo-be doo-wop" (Louis Armstrong famously invented this technique), and in English madrigals and Christmas carols you'll sometimes hear syllables like "fa la la la la" as a refrain. In all these cases, the sounds and rhythms of the "text" contribute to the music and its broad meaning. The voice can even be used for its timbral characteristics, like any other instrument—as in the technique called **vocalise**, or wordless melody (singing on a neutral vowel like "ah").

Throughout this book, you will encounter music with texts in a variety of languages other than English. Music for worship has been set for centuries in Hebrew, Greek, and Latin. Not only was **Latin** the language of the Roman Empire, it was also the language of learning at medieval and Renaissance universities and of the Roman Catholic Church until the Second Vatican Council of 1962, when the church



This humorous score of *Stripsody*, by soprano Cathy Berberian, features comic-book images that ask the vocalist to make sounds matching the pictures.

approved the use of the **vernacular** (the language of the people) for the Mass. **Secular** (nonreligious) music has traditionally been in vernacular languages. You will hear most selections sung in their original language (although we provide an English translation), since a sung translation will never fit the musical line as well as the original words. In the case of a famous lullaby by Brahms, though, you probably know the English version better than the original German words:

Vernacular

Gu-ten A - bend, gut' Nacht, mit - Ro - sen be -
Lul - la - by and good night, with - ro - ses be -

dacht, - mit - Näg' - lein be - steckt, schlupf' - un - ter die Deck',
dight, - with - li - lies, o'er - spread, is - ba - by's wee bed,



Brahms, *Lullaby*

In addition to modern European languages (Italian, French, Spanish, and German), you will also hear texts in Arabic, Chinese, and even Nahuatl, a language of the Aztec peoples. As we encounter words in other languages, their translations often have meanings that are slightly different from the original; if you have studied (or grown up with) a language other than English, you know that some terms or concepts really don't translate perfectly from language to language or culture to culture. This is another reason why it's important to consider the texts of songs in their original language even as we also try to grasp the meaning through the translation.

Which comes first in a song, the melody or the words? As we will see, many composers select an already existing poem or prose text to set to music, so clearly those words precede the tune. But great teams of lyricists/composers have worked together to come up with enduring songs, and there is no clear formula for their creations. When George Gershwin composed the tune that became *I Got Rhythm*, his partner/brother Ira set out to write lyrics that fit the syncopated rhythms. It took him several tries, and the famous ones they settled on do not rhyme ("I got rhythm, I got music, I got my girl, who could ask for anything more"). Likewise, the lyrics for the Talking Heads' famous song *Burning Down the House* were added after the band had found a set of rhythmic and melodic ideas that they liked.



LEFT: Luciano Pavarotti (1935–2007), one of the greatest operatic tenors of all time.



RIGHT: E. J. Jones plays folk songs and dances on Scottish small pipes (aerophone), a quieter version of bagpipe.

In earlier eras, Western social and religious customs severely restricted women's participation in public musical events. Thus, young boys, and occasionally men with soprano- or alto-range voices, sang the upper parts in church music and on the stage. In the sixteenth century, women singers came into prominence in secular (nonreligious) music. Tenors were most often featured as soloists in early opera, while baritones and basses became popular soloists later, in the eighteenth century. In other cultures, the sound of women's voices has always been preferred for certain styles of music, such as lullabies.

Throughout the ages, the human voice has served as a model for instrument builders, composers, and players who have sought to duplicate its lyric beauty, expressiveness, and ability to produce **vibrato** (a throbbing effect) on their instruments.

LEFT: A steel drum band playing steelpans (idiophones) competes in the famous Panorama competition in Trinidad.

RIGHT: A drum (membranophone) ensemble from Burundi in Central Africa.

The World of Musical Instruments

The diversity of musical instruments played around the world defies description. Since every conceivable method of sound production is used, and every possible raw material, it would be impossible to list them all here. However, specialists



have devised a method of classifying instruments based solely on the way their sound is generated. The system designates four basic categories. **Aerophones** produce sound by using air. Instruments in this category include flutes, whistles, and horns—in short, any wind instrument. One of the most common aerophones around the world is the **bagpipe**, with a somewhat raucous tone and built-in drones for harmony. **Chordophones** produce sound from a vibrating string stretched between two points. The string may be set in motion by bowing, as on a violin; by plucking, as on a guitar or Chinese pipa; or by striking, as on a hammered dulcimer.

Idiophones produce sound from the substance itself. They may be struck, as are steel drums from Trinidad (p. 36); scraped or shaken, as are African rattles; or plucked, as is the mbira, or African “thumb piano.” The variety of idiophones around the world is staggering. **Membranophones** are drum-type instruments that are sounded from tightly stretched membranes. They too can be struck, plucked, rubbed, or even sung into, to set the skin in vibration.

In the next chapter, we will review the instruments used most frequently in Western music. Throughout the book, however, you will learn about other instruments associated with popular and art music cultures around the world that have influenced the Western tradition.



Performer playing the Chinese pipa, a plucked-string instrument (chordophone).

In His Own Words

“If you can walk, you can dance. If you can talk, you can sing.”

—Zimbabwean proverb

Style and Function of Music in Society

"A real musical culture should not be a museum culture based on music of past ages. . . . It should be the active embodiment in sound of the life of a community—of the everyday demands of people's work and play and of their deepest spiritual needs."

—Wilfrid Mellers (1914–2008)

KeyPoints

- Most cultures around the world employ **sacred music** for religious functions, and **secular music** for entertainment and other nonreligious activities.
- There are many **genres**, or categories, of music; some works **cross over** categories, borrowing elements of one genre for use in another.
- The **medium** is the specific group (e.g., orchestra, chorus) that performs a piece.
- Some music is not written down, but is known through **oral transmission**.
- The distinctive features of any artwork make up its **style**. A musical style is created through individual treatment of the basic musical elements.
- We organize styles of artworks into historical periods, each with its own characteristics.

In every culture, music is intricately interwoven with the lives and beliefs of its people. Music serves different functions in different societies, though some basic roles are universal. In some cultures, such as in the Western classical tradition, only a few people are involved with the actual performance of music; in others, cooperative work is so much a part of society that the people sing as a group, with each person contributing a separate part to build a complex whole.

There is music for every conceivable occasion, but the specific occasions vary from one culture to another. Thus, musical genres, or categories of repertory, do not necessarily transfer from one society to another, though they may be similar. For example, Japanese *Noh* drama and a Beijing opera like *The Legend of the Red Lantern* (Encounter, p. 272) serve essentially the same role as Western opera does. And we can distinguish in most cultures between **sacred music**, for religious purposes (like the Islamic chant on p. 74), and **secular music**, for entertainment (such as the *Mariachi* band in the Encounter on p. 372).

It's important to differentiate between genre and form. A **genre** is a more general term that suggests something of the overall character of the work as well as its function. For example, song is a genre, as is **symphony**—usually designating a four-movement orchestral work. As we will see later, each movement of a symphony has a specific internal **form**, or structure. "Symphony"



In Japanese *Noh* drama, performers often wear symbolic masks.

Reviewing Terms



Title: *Symphony No. 5 in C Minor, Op. 67* (Op. = Opus = work number)
Composer: Ludwig van Beethoven
Genre: Symphony
Form: Four-movement work for orchestra
Medium: Symphony orchestra

Title: *Wiegenlied (Lullaby), Op. 49, No. 4*
Composer: Johannes Brahms
Genre: Romantic Song (in German, Lied)
Form: Strophic (two stanzas sung to the same music)
Medium: Solo voice and piano

also implies the **medium**, or the specific group that performs the piece—in this case, an orchestra (see box above).

Titles for musical compositions occasionally indicate the genre and key: Symphony No. 94 in G Major, by Joseph Haydn, for example. Another way works are identified is through a cataloguing system, often described by **opus number** (*opus* is Latin for “work”; an example is Nocturne, Op. 48, a piano work by Frédéric Chopin). Other titles are more descriptive, such as *The Nutcracker* (a ballet by the Russian composer Peter Ilyich Tchaikovsky) and *The Trout* (a song by Franz Schubert, an Austrian composer).

Just as the context for music—when, why, and by whom a piece is performed—varies from culture to culture, so do aesthetic judgments. For example, the Chinese consider a thin, tense vocal tone desirable in their operas, while the Italians prefer a full-throated, robust sound in theirs.

Not all music is written down. Music of most cultures of the world, including some styles of Western music, is transmitted by example or by imitation and is performed from memory. The preservation of music without the aid of written notation is referred to as **oral transmission**. We will see that in modern times, music scholars known as ethnomusicologists, who study music in its cultural context, have attempted to “capture” music that had never previously been written down through field recordings (an example from East Africa is on p. 412).

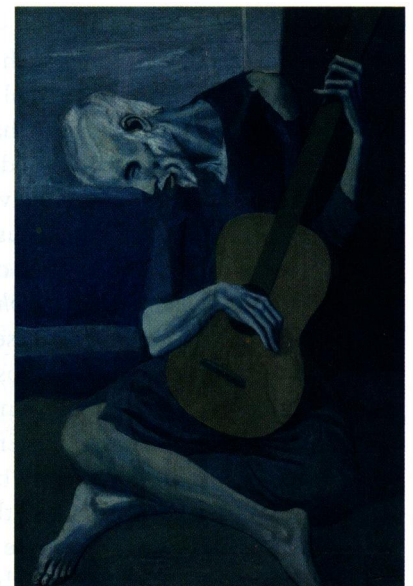
While we will consider how music operates in several different traditions, our Listening Guides focus primarily on Western art music—that is the no-

Oral transmission

Note the stylistic differences between paintings of similar subject matter from different historical eras.

LEFT: *The Guitar Player*, by Jan Vermeer (1632–1675).

RIGHT: *The Old Guitar Player*, by Pablo Picasso (1881–1973).



tated and **cultivated** music of European and Euro-American society. We often label art music as “classical” or “serious,” for lack of better terms. However, the lines that distinguish art music from other kinds can be blurred. **Vernacular** musics (often called “popular” or “traditional,” wrongly understood as spontaneously generated by untrained musicians) are essential traditions in their own right, and both rock and especially jazz are believed by many to be new art forms, having already stood the test of time.



Famed cellist Pablo Casals working with a student.

The Concept of Style

Style may be defined as the characteristic way an artwork is presented. The word may also indicate the creator’s personal manner of expression—the distinctive flavor that sets one artist apart from all others. Thus, we speak of the literary style of Dickens or Hemingway, the painting style of Picasso or Rembrandt, or the musical style of Bach or Mozart (compare the paintings on p. 54).

What makes one musical work sound similar to or different from another? It’s the style, or individualized treatment of the elements of music. We have seen that Western music is largely a melody-oriented art based on a particular musical system from which the underlying harmonies are also built. Musics of other cultures may sound foreign to our ears, because they are based on entirely different systems, and many do not involve harmony to any great extent. Complex rhythmic procedures and textures set some world musics apart from Western styles, while basic formal considerations—such as repetition, contrast, and variation—bring musics of disparate cultures closer. In short, a style is made up of pitch, time, timbre, and expression, creating a sound that each culture recognizes as its own.

Musical Styles in History

Each historical period has its own stylistic characteristics; although the artists, writers, and composers of a particular era may vary in outlook, they all share certain qualities. Because of this, we can tell at once that a work of art—whether music, poetry, painting, sculpture, or architecture—dates from the Middle Ages or the eighteenth century. The style of a period, then, is the total language of all its artists as they react to the political, economic, religious, and philosophical forces that shape their environment. A knowledge of historical styles will help you place a musical work within the context (time and place) in which it was created.

The timeline opposite shows the generally accepted style periods in the history of Western music. Each represents a conception of form and technique, an ideal of beauty, a manner of expression and performance attuned to the cultural climate of the period—in a word, a style!

13

Putting Music into Words

"Writing about music is like dancing about architecture."

As a nonverbal art, music does not easily translate into words, as the quip above suggests. But people have been writing about music since the time of the earliest literate societies—probably because we want to describe those experiences we find most meaningful, even when we realize that words can't quite convey all the nuances of what we sense, hear, or feel. As an assignment for this course, you may well be asked to discuss or write a report about works you've listened to in class or heard at a concert. If you feel strongly about a favorite song, you will likely want to describe it to a friend. These situations call for different types of explanations and different vocabularies.

The opening chapters of this book have provided you with an idea of how knowledge is constructed in music—and these concepts apply to all styles, popular and classical alike. Let's say that you listened in class to Britten's *Young Person's Guide to the Orchestra* (Chapter 11). You might tell a friend that the end of the work—the fugue—sounded "exciting," and follow up by saying it sounded like a frenzied and intense "wake-up call" at the end of a long piece. But with a knowledge of the building blocks of music, you are equipped not only to understand better but also to elaborate on how and why you had this reaction. You could note the fast tempo, the different instruments entering one after the other with the same tune (starting with those in a high register), how complex or polyphonic the texture became, and how the main tune rose in the brass from under all this musical



An audience enjoying a live performance of an orchestral concert.

activity. These kinds of insights are likely what your instructor would expect from you in a class discussion or a written report, and they also would allow your friend to understand more deeply what was meaningful to you, and perhaps make that friend want to hear the piece him- or herself.

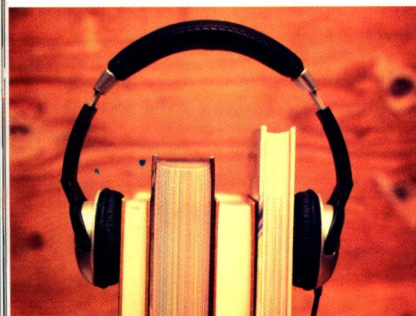
In this way, your reaction and your ensuing analysis connect the three planes of listening described by composer Aaron Copland: the *sensuous*, in which the music simply washes over the listener; the *expressive*, in which the emotional power of the music is at the forefront and the listener is considering the composer's meaning; and the *musical*, in which the listener delves into the inner workings of the music.

In another scenario, you might want or be asked to analyze a new musical work, one not discussed in the book or in class. Here, you can draw on your developing listening skills to determine its genre, aspects of its style, and perhaps the era in which it was composed. You'll be able to use vocabulary relating to melody, rhythm, harmony, texture, form, and timbre—in short, the **materials of music**. Here are some tips to help you get started in applying those terms and concepts to what you hear.

To begin, listen to the work several times if possible—this will give you a better chance to perceive individual elements. Then consider the big picture:



Student studying music in the library.



The necessary study tools for music.

- If you can define the **performing forces** of a work, this can help you determine its **genre**. Works of the same genre (song, symphony, string quartet) often share certain style traits. In particular, the performing forces and timbres you hear should be similar—that is, a symphony generally features strings, and usually brass, woodwinds, and percussion. One helpful clue can be the title of a work, which frequently specifies a genre (e.g., Beethoven, Symphony No. 5 in C Minor).
- If you know the date of a composition or dates of its composer, you can easily place it within a **historical period** (Baroque era, Romantic era, etc.; see p. 56, “Musical Styles in History,” to find the dates of each era). Beginning with Part 2, this book is organized chronologically, so that you will encounter eras and styles in historical order. Compositions from the same period generally share style traits, regardless of the genre. For example, you will find that many Romantic-era works, whether for solo voice, solo piano, or orchestra, feature broad-ranging, very lyrical melodies (see images opposite).
- Note the prominent moments, or “**signposts**,” that catch your ear. Why and how do they do so? You might **take notes** as you listen, so that you can recall better the sequence and timing of events.
- What **organizational features** can you identify? Is there significant repetition or variation of musical ideas? Do you hear new, contrasting music? Does the work sound balanced, or more asymmetrical?
- Is the **overall sound** mostly consonant or dissonant? Do you think the work is based on a major scale, or a more somber minor one?
- Can you describe the **musical conversation** at play in the work? If it has a story (or program) provided by the composer, become familiar with it, as it will help you follow the progression of musical events. Not all works have an explicit story, but each provides a set of musical ideas as a sort of conversation on which you can focus. If it helps for you to create your own story, that's great.
- How would you describe the overall **mood** of the piece? Allow yourself to respond both **objectively** and **subjectively** to what you hear. That is, consider both the technical terms you can apply to the music and your personal response. When and why did you have that response?

- Do some **research** on the work, if this is appropriate and allowed by your instructor (or for your own interest). This way you can deal with the **ideas of others**, along with your own reactions. If you don't agree with the assessment or description provided by someone else, why not? What descriptors would you use instead, and why?

Now for some finer details:

- Describe how the **main melody(ies)** sound (cheerful? disjunct?) and how they move.
- How pronounced is the **rhythm and meter**? Does the work flow gently, or is it heavily accented? What is the **tempo**, and how does it affect the rhythmic flow?
- Does the **texture**, or interaction of the different parts, seem simple (as in a melody with accompaniment), or complex, with multiple lines occurring simultaneously?

Finding Your Voice and Framing Your Ideas

Don't strive to be comprehensive, since it's not really possible to hear everything that's going on in a piece of music, nor is there only one way to understand it. A blow-by-blow description of a work, whether literary or musical, can be daunting to complete and tiresome to read. Instead, your perspective can focus on the moments that leap out at you, that jolt your senses or seem particularly important. In discussion or in writing, you should try to achieve a balance between descriptive analysis and personal reaction, thus presenting your own "voice" or "spin" on a work.

Your discussion could take one of various forms. Consider how you might use or adapt the templates below in constructing your argument. A comparison with something you already know can be a helpful way to begin.

Perhaps you will be faced with a new symphony, hopefully after having studied Beethoven's famous Fifth Symphony. This template allows a **comparison** of the two works, noting the differences and opening a conversation that can be further developed.

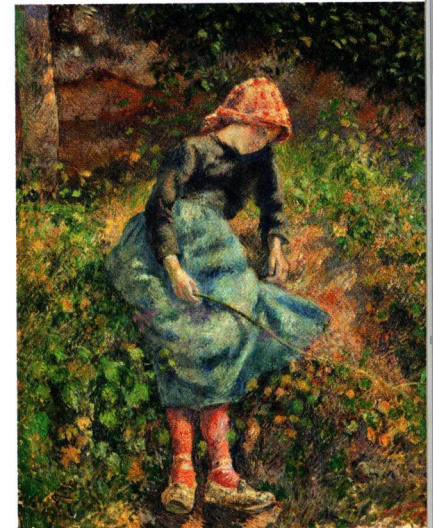
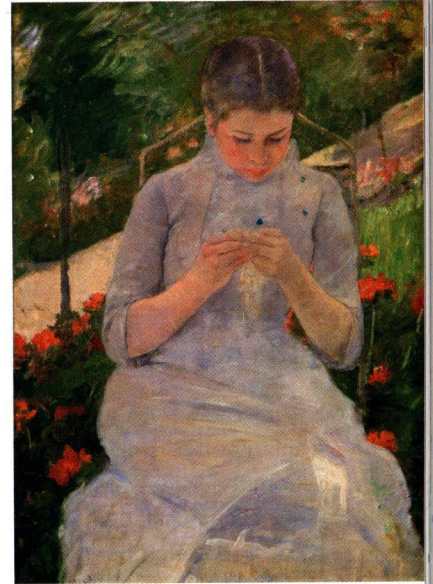
Unlike Beethoven's Fifth Symphony, which is unified by a short, four-note motive, _____ [title of the new work] presents _____ themes that are _____.

In some cases, a piece, let's say a new song by Stephen Foster, may share features with one you already know and like, and thus prompt an **evaluative statement** to start:

Like Foster's *I Dream of Jeanie*, _____ [title of the of the new work] is memorable, for its _____ form and _____ melodies.

Alternately, you might take issue with, or **argue against**, the general description of a genre when you are faced with a new multimovement work from, say, the Classical era. Clearly you will need to develop your argument further.

Although many Classical-era works feature a slow, second movement and a dancelike third movement, _____ [title of the new work] changes this standard format to _____.



Artworks from the same historical era, in this case Impressionism, share style traits such as paint strokes, colors, and even subject matter.

TOP: *Young Girl Sewing in a Garden*, by **Mary Cassatt** (1844–1926).

BOTTOM: *Peasant Girl*, by **Camille Pissarro** (1830–1903).

Yet another approach might be structured by giving some description or **analysis** that then leads you to a conclusion, such as the era of composition:

The composition _____ [title of new work] features _____ harmonies and _____ rhythms, which suggest it was likely written in the twentieth century.

Below are excerpts showing how different authors have written about music. Don't try to imitate these, but do consider how each writer presents an individual perspective. And remember that one listener's perspective will differ from that of another.

In His Own Words

“There is no such thing as music divorced from the listener. Music as such is unfulfilled until it has penetrated our ears.”

—Yehudi Menuhin

For the song *The Trout*, by Franz Schubert, the author (Thomas Forrest Kelly, *Music Then and Now*) considers the text carefully, then writes this:

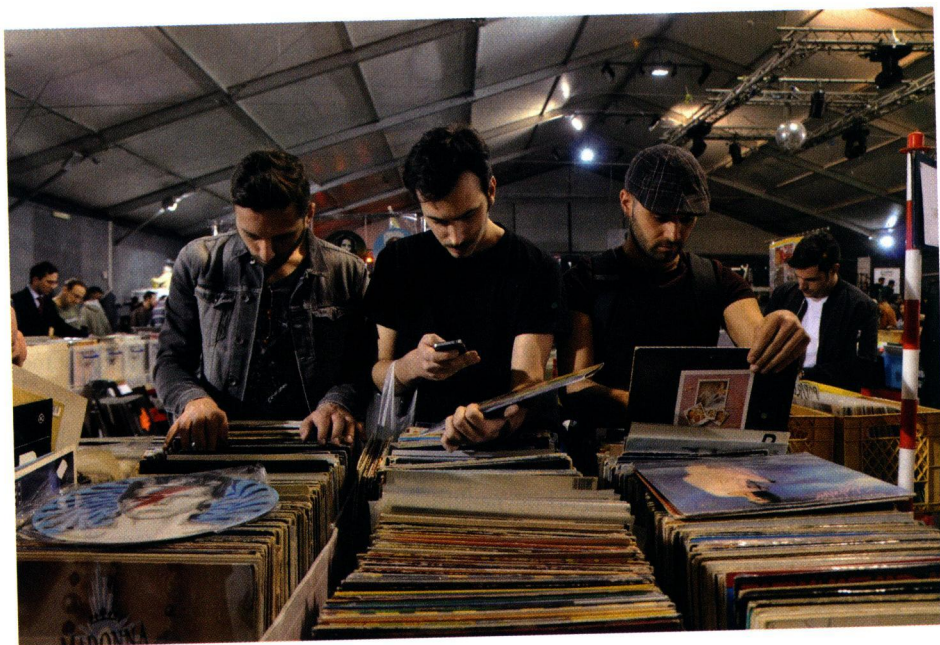
The piano introduction is charming. . . . bouncy and bright, with an unforgettable rhythmic pattern. . . . The poem paints an innocent outdoor scene of a trout in a brook and the music matches it in sunny simplicity. When the second verse arrives, we are not surprised; there is the same piano introduction, the same melody, but the words have just a hint of something ominous. We suspect the trout may be in trouble. And there it is: the third verse is suddenly very different. What before seemed innocent enough, now is full of bitter humor. In the same way the fisherman lures the trout, Schubert's apparently simple setting lures in the listener.

Here, the critic follows the text of the song through its changing moods as the music follows course. When writing about a song, try to have the words and (if appropriate) a translation handy in order to follow the meaning of the music. Note that this discussion is descriptive and evaluative with a dash of humor.

In discussing the piano piece *Prelude in E Minor, Op. 28, No. 4*, by Frédéric Chopin, the author (Roger Hickman, *The Norton Scores*) selects his points carefully, rather than trying to be comprehensive:

The *Prelude in E minor* is justifiably one of Chopin's most renowned compositions, principally because of its brevity, chromaticism, and emotional potency. The melody . . . moves in a restricted range with simple ornamentation, suggesting the lyricism of a vo-

Disco Days at Casa della Musica in Naples, Italy, promote music and the culture of listening, especially among lovers of vinyl.



cal line. . . . The climax occurs near the middle, where the melody suddenly expands, the rhythmic activity increases and the rate of harmonic change accelerates.

The author is evaluative in telling the reader that this is a famous work, and then proceeds to speculate why. He describes the expressiveness of the melody, but then focuses on an important moment in the short work—the climax, detailing what happens here to the melody, rhythm, and harmony.

Listening to contemporary art music can be especially challenging, as twentieth-century composers broke away from many of the established procedures. Here is a discussion of Mexican composer Silvestre Revueltas's orchestral work *Homage to Federico García Lorca*, from an earlier edition of this book.

This movement, in a rondo-like form, begins explosively, tossing about fragmentary ideas with unrestrained energy. The strings and piano then establish a steady 6/8 pulse, over which the muted trumpet sounds a narrow-ranged theme built from whole tones. Rhythmic confusion and percussive accents lead to the principal theme—a syncopated Mexican dance tune. . . . A rhythmic idea from this theme is then manipulated and developed by various instruments, after which the Mexican tune returns in a full orchestral statement. A frenetic coda is unleashed after two dissonant chords in the piano.

In this case, the authors chose to describe what they perceived as the main events in the order they appear in the work, but because music is not a series of unrelated events, they also noted the return of the main melody. The authors were purposefully vague in some aspects of their description, saying the form was “rondo-like” rather than a rondo. This loose treatment of form is typical of the “rule-breaking” by contemporary composers.

Music and sound are crucial not only to historical multimedia (such as opera, ballet, and musical theater) but to contemporary multimedia as well. The author of the excerpt below (Reba Wissner, from the Norton website *The Avid Listener*) describes how musical “codes” in science-fiction TV alert us to something sinister:

Common malevolent musical techniques include the use of low-pitched instruments, such as organ, cello, and bassoon, played in minor keys; ostinato melodies (melodies that repeat over and over in a single piece); simple and short melodies that move by step or half step; dissonant chords (stacks of notes that sound harsh or tense); rising or falling chromatic melodies (that is, by half steps); alternating minor seconds; and unusual instruments such as the Theremin. Musical codes for impending danger include dissonance, often paired with a low-pitched drone (a single note or pair of notes that remain static); ominous rising motives; minor second and tritone intervals; and siren-like oscillations. Each of these allows viewers to see with their ears before they see with their eyes.

Here the author describes specific details of timbre, melody, and harmony to convey the effects they create in the science-fiction narrative.

Some final words of advice are in order. In this age of information overload, we are in danger of losing our listening skills. Be aware that active, engaged listening takes not only practice but time. So listen to music—all types of music—often and think about it. Learning more about music can only enhance your enjoyment!

In His Own Words

“Just listen with the vastness of the world in mind. You can't fail to get the message.”

—Pierre Boulez