CHAPTER GOALS

- To develop tools for listening.
- To understand the basic elements of music.
- To develop a vocabulary of musical understanding.
- To explore the relationships between musical sound and musical meaning.

CHAPTER TWO

Listening to Music

QUESTIONS FOR THOUGHT

- **How does music communicate meaning?**
- **How might a composer portray heartbreak? Joy? Fear? Surprise?**
- **How might a composer maintain coherence in a long piece?**

Engaged Listening

"Music is the art of thinking with sounds."
—Jules Combarieu (1859–1916)

Music is culture-specific. It is found in every human society. Like language, each music culture has its own particularized grammar and syntax. Sounds that are important in one context may not be meaningful in another. Or, they may signify something quite different.

As children, we learned to make sense of the music around us, just as we did with our first spoken language. But to understand music's subtleties we have to actively train, or "tune," our minds to respond to the proper stimuli. This process is complex, but relatively easy to understand.

The ear itself takes in the enormous range of information from the soundscapes in which we live. But as the mind becomes engaged, we discover that not all sounds are equally important. As infants, *we learn to listen*: to identify (and make use of) relevant sounds and disregard others. This is how we learn to speak. It is also how we come to understand music.

Everyday experience offers us important listening opportunities. Consider all the elements involved when following a single conversation in a crowded and noisy room. You will:

- pinpoint the speaker's location and focus your attention in that specific direction
- single out the unique quality of the speaker's voice and tune out the others
- use context to fill in words you may have missed
- follow the speaker's lips, facial expression, or gestures for additional information.

Hearing happens automatically. Engaged listening, however, requires mental focus. It is also hugely rewarding. Let's reconsider the basic details of following a conversation, but this time in a quiet environment. Think back to a recent talk you had with a friend. You listened to words for their meanings, of course. But you also listened to much more. You took notice of your friend's tone of voice, tempo of speech, choice of words, grammatical syntax, and physical affects. From this, you deduced meanings hidden behind the words—for example, if your friend was confident or nervous, open or conspiratorial. All of this helped you to develop not only a rich interpretation of the conversation's true meaning and the speaker's true intent, but also how those meanings and intents affected you.

Compared with speech, music listening is more abstract, but the general process is the same. In music, besides the lyrics, we pay attention to the instruments used and their sound qualities, as well as to the melodies, harmonies, and rhythmic inflections. We listen for repeated patterns. Perhaps we tap a foot or sway to the rhythmic groove. If we are at a live concert, we notice the musicians' dress and stage demeanor, as well as the audience's reaction (i.e. the *audience's* performance). Moment by moment, we process this information in an attempt to figure out what the musicians are up to (what

they are trying to express, and what they want us to think and feel) and what *we* are up to (how we respond and what we hope to gain from the experience).

The key to gaining a rich musical experience is to immerse oneself (mind and body) through *engaged listening*, an acquired four-part process that involves:

- attentiveness
- analysis
- interpretation
- inner awareness.

With a few moments of thought, you will notice that the four processes inform each other and occur virtually simultaneously.

Alas, practice will not make perfect. We will never become aware of everything. But engaged listening will guarantee an increasingly rich musical experience as we learn to notice ever-greater detail. As we train ourselves to follow multiple musical ideas simultaneously, we can even learn to distinguish a single player's melody amidst the sonic commotion of a full orchestra. And, of course, by directing attention inwardly we come to understand ourselves more deeply.

The Elements of Music

Performers rely on sonic road maps to navigate their way through a composition. This is true for every musical genre or style. Listeners use road maps too. The biggest difference between a performer's road map and a casual listener's road map is the level of complexity. A performer's map is necessarily intricate and multifaceted. It consists of many interrelated layers that are accessed to different degrees according to the musical demands. These layers include such basic elements as melody and harmony, rhythm and texture, and others. By comparison, a listener's map might initially include only general outlines and expectations—perhaps just the lyrics of a song, or the overall emotional feeling it projects, or the beat. It takes engaged listening to fill in the details of a musical landscape.

So how to build a sound map? We need specific tools, which we will learn to use in the following pages. Musical structures can be extremely complex, of course. Do not worry about that. Like a house made of bricks, complexity is built by combining relatively simple ideas. These ideas, or building blocks, constitute the six major "elements" or "fundamentals" of music:

1. Melody
2. Rhythm
3. Harmony
4. Timbre
5. Texture
6. Form

In this chapter we focus on each element individually. In the next chapter we look at three compositions to see how these elements work together to construct musical meaning. As you read about each element, be sure to use the Student Supplement (@) on the text's website in order to hear examples of the concepts discussed.

Melody

At the most basic level, **melody** can be understood as a unit of **pitches** (or **tones**) sounded in succession. Stated in a more natural fashion, one might say that melody is the tune; it is the part of a **song** or **composition** you go away singing. @ 2.1

Melodies portray emotions. For example, a melody that moves between adjacent tones (**conjunct motion**) from one pitch to the next and is narrow in **range** (the distance between highest and lowest pitches) might represent calmness. Contrarily, a melody that has leaps between consecutive pitches (**disjunct motion**) might represent vigor or anxiety. Melodies that progress slowly downward often suggest relaxation, melancholy, or sadness. Melodies that move upward often represent resolve or optimism. (Experiment with these ideas by humming a favorite song. Also pay attention to how the melody fits with the lyrics.)

A melody is a sentence in tones. As you know from studying English grammar, sentences are organized into phrases and held together by periods, commas, and other punctuation. Nouns are stable; verbs suggest action. Other words function as articles and prepositions, adjectives and adverbs. In a well-constructed sentence, every word has a function—a place in the grammatical whole. So too with the tones that comprise melodies.

The Western melodic system is built upon the principle of tension and release. Each of the seven tones of the **major scale**—do, re, mi, fa, sol, la, ti (do)—embodies a different emotional tendency. "Do" (the home tone or **tonic**) and "sol" (the **dominant**) represent stability and rootedness (like nouns). Other scale degrees, particularly "ti" and "re," are relatively unstable and have action tendencies (like verbs). They generally create tension, such as a longing to return to "do." Each scale tone has its own distinct personality, as with the different colors of a rainbow or the green/yellow/red of a traffic signal.

The term "scale" comes from the Latin *scala*, meaning ladder. Like a ladder, musical scales consist of ascending and descending steps; on each step resides a tone. The Western scale is divided into twelve equidistant steps called half-steps (or semitones). A scale that contains all twelve pitches is called a **chromatic scale** (Figure 2.1, major scale tones are in bold). The interval (or distance) from one tone to its upper or lower repetition (e.g. "do" to "do" or "sol" to "sol") is called an **octave**.

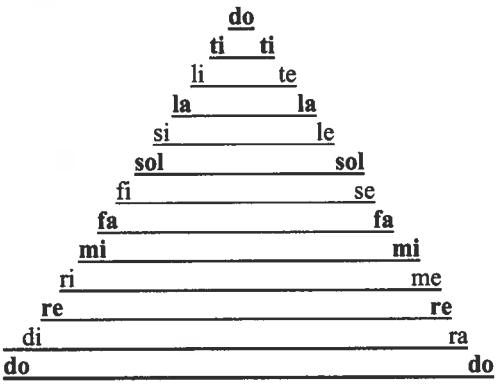


FIGURE 2.1 Chromatic scale: ascending and descending.

Most pieces of Western music use either major or minor scales, which consist of specific patterns of whole-steps (W) and half-steps (H). Both major and minor scales consist of seven individual tones (Figure 2.2).

Ascending	Descending
do—re—mi-fa—sol—la—ti-do	do-ti—la—sol—fa-mi—re—do
W W H W W W H	H W W W H W W

FIGURE 2.2 Major scale.

Minor Scales

In the Western melodic system there are three types of minor scales: natural, harmonic, and melodic. All three use a lowered third scale degree whereby "mi" becomes "me" (pronounced "may"). The differences among the three are in the raising and lowering of the sixth and seventh steps. In Figure 2.3, we present only the natural minor scale, which has lowered sixth and seventh degrees ("la" and "ti" become "le" and "te").

Ascending	Descending
do—re-me—fa—sol-le—te—do	do—te—le-sol—fa—me-re—do
W H W W H W W	W W H W W H W

FIGURE 2.3 Natural minor scale.

In Western art music, some hear the major scale as extroverted and joyful, the minor scale as introverted, even sorrowful. We shall see that this connotation is not always the case, but for now it might be helpful to think of major tonalities as bright in color and minor tonalities as relatively dark. Remember though, these descriptions are stereotypes that serve only as a starting point.

WESTERN MUSICAL NOTATION

Western musical notation was largely standardized during the 9th to 15th centuries. Pitch is indicated by placing symbols (called notes) on a five-line staff. Different clefs—treble and bass are most common—indicate the overall range of the staff. There are various ways to indicate the duration of notes. Notes of longer duration have empty note heads, shorter ones are black. Very short notes add "flags" on the stems. The more flags, the shorter the note. A **time signature** shows the meter (top number) and which type of note gets the beat (bottom number).

(A more detailed discussion of notation can be found on 2.2.)

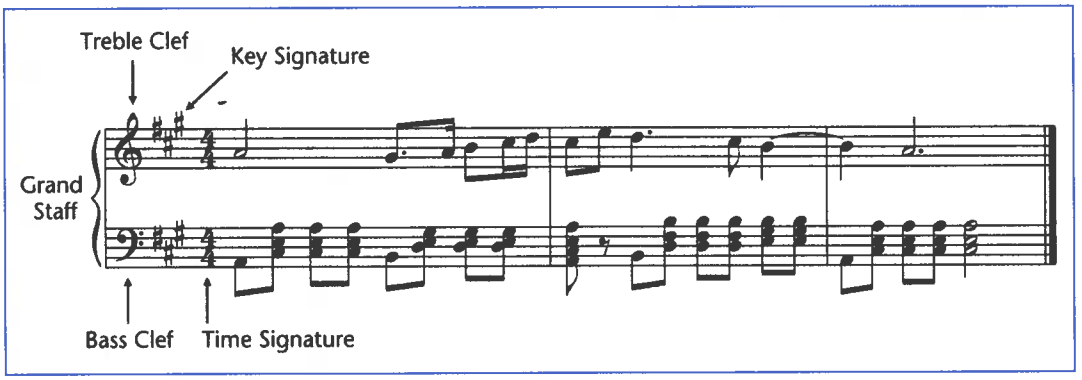
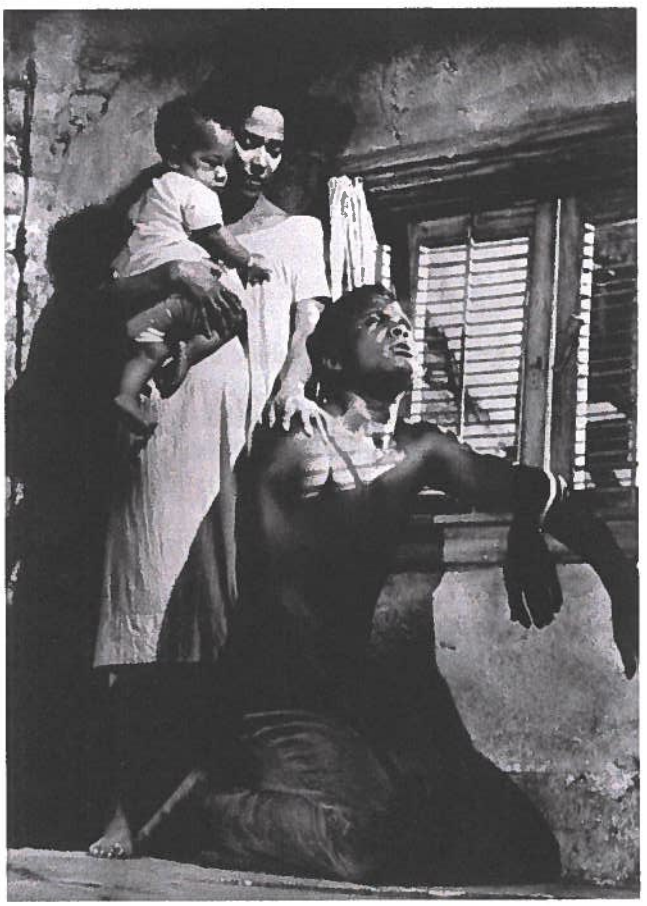


FIGURE 2.4

"Summertime," from the opera Porgy and Bess *(1935)*

It is time for us to put some of this information to use. We begin by listening to and analyzing the song "Summertime," which has been performed by countless artists working in genres from opera to jazz to rock. We suggest you begin with a version in the style the composer intended. But as with this and every composition we study, you should explore the internet to compare and contrast different performances.



Sidney Poitier and Dorothy Jean Dandridge in *Porgy and Bess*, 1959.
Mondadori Portfolio/Getty Images.

"Summertime" from *Porgy and Bess*, by George Gershwin and DuBose Heyward

LISTENING 2.1 GUIDE

Texture: Homophonic
Meter: Quadruple
Form: Two verses, each with melodic phrases that follow ABAC pattern

The setting is a steamy evening along Catfish Row in Charleston, South Carolina. Listen to the first verse of lyricist DuBose Heyward's (1885–1940) "Summertime" from the opera *Porgy and Bess* (1935) written by composer George Gershwin (1897–1937), DuBose and Dorothy Heyward, and lyricist Ira Gershwin (1896–1983).

The verse consists of four complete sentences each of which divides neatly into two parts. Yet, none of the first three sentences seem capable of standing on their own. Each is strangely lethargic. Each requires more context. When we hear, for example, that "livin' is easy," we do not really know what to make of the news. Is easy livin' good? Bad? Indifferent? Why should we care?

We have similar emotional responses with sentences two and three. Fish seem to be plentiful, assuming one can catch them. High cotton suggests a healthy crop, but it also brings to mind the harvest's labor history and the oppressive heat of late summer in the Deep South.

We are receiving lots of information, but what to make of it? Finally, there is resolution in the fourth sentence ("Hush little baby . . ."). Now we have context. This is a lullaby. And with that knowledge perhaps we feel inner disquiet. Why tears from an innocent baby if life is so placid?

Maybe it is not.

Listen to Gershwin's melody. Mirroring the poetry, Gershwin divides the music into four melodic sections or **phrases** (Figure 2.5). After each, there is a short pause, allowing time for the singer to breathe and time for the listener to reflect.

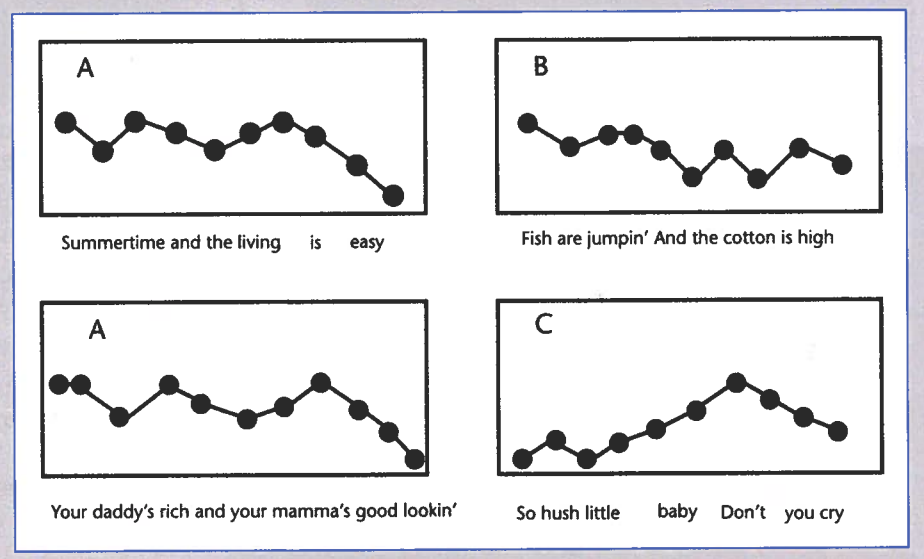


FIGURE 2.5 Melodic map of "Summertime."

Notice that the first and third phrases are virtually identical in terms of melodic contour. For purposes of analysis, we will label them as "A" phrases. Also notice that both A phrases meander downward in an easy manner.

Relaxed though they are (and like the lyrics they enhance), the phrases do not provide a sense of resolution. Why? Because the phrases end on the pitch "sol," the dominant, rather than "do," the tonic. The listener is left suspended in mid-air.

The second phrase (the "B" phrase) is similar in shape and general downward direction to the A phrases, but the range is narrower. As B begins, we wonder if it will provide the anticipated resolution to the initial A phrase, but by ending on "re," it does not.

Do you see how Gershwin (as did Heyward) is delaying satisfaction? He makes us continue to listen to the complete story.

The awaited resolution finally comes with the fourth phrase (the "C" phrase), which begins on the same low pitch that ended the A phrases. Notice that in contrast to the first three phrases, which all begin on the same pitch and move

continued

downward, the C phrase has a generally upward direction, though in the end it too relaxes downward, but now to "do," the tonic.

Notice the tidy balance of the ABAC format. Four distinct sections divide neatly into two main groupings: AB and AC.

Take a moment to consider what a strange, wonderful, and emotionally complex world the song has created. It is as if the plain meanings of everyday life have been suspended in a dream, the implications of which are just out of conscious reach. Such is the power of a well-constructed composition. (For more about Gershwin's *Porgy and Bess*, see @ 2.3.)

Melody in the Non-Western World: An Example from North India

We have seen that Western melodies are built on specific concepts and expectations. Composers engage those ideas when writing music. The Western system is not universally employed, however. In the classical music of India, for example, melodies are based on pitch collections called ***ragas***. @ 2.4

- A raga is a collection of tones (*svaras* or *swaras*), each of which has a name: *sa–re–ga–ma–pa–dha–ni–sa*).
- Individual ragas are associated with specific emotions or spiritual states. Some are linked to particular times of the day or night.
- The distance between the tones, except for the foundational interval between sa and pa, may be slightly larger or smaller from one raga to the next. Thus, a raga's tones, which might fall between the measured half- and whole-steps of the Western scale, sometimes sound unusual to the Western ear.

- There are rules governing the way the pitches are used. For example:
  - Ragas may be characterized by the movement between pairs of tones.
  - Melodic sequences may require that tones be altered, skipped over, repeated, or left out.
  - The ascending form of a raga may be different from its descending form.
  - Even though two ragas may contain the same pitches, they can be distinguished by melodic emphasis or characteristic melodic combinations.

Generally speaking, classical Indian music begins with an improvised and rhythmically free section known as ***alapana*** (or simply, *alap*). It is here in the alap that the raga's various tonal, melodic, and emotional characteristics are introduced. We will listen to a brief alap excerpted from a longer performance by ***sitar*** player Ravi Shankar (1920–2012) and ***sarod*** player Ali Akbar Khan (1922–2009). The two musicians take turns interjecting brief musical ideas.

Plaque with dancer and veena player, 1st century, BCE.
Courtesy of The Metropolitan Museum of Art, New York, Samuel Eilenberg Collection, Gift of Samuel Eilenberg, 1987.

SITAR AND SAROD

Mid 19th-century sitar.
Courtesy of The Metropolitan Museum of Art, New York, The Crosby Brown Collection of Musical Instruments, 1889.

Sarod, ca. 1885.
Courtesy of The Metropolitan Museum of Art, New York, The Crosby Brown Collection of Musical Instruments, 1889.

Both of these plucked stringed instruments are members of the **lute** family and are associated with the North Indian (Hindustani) music tradition. The instruments share many commonalities, but also have significant differences in both sound and construction. The sitar's resonating body is made of gourd (on the back) and wood on the face (and sometimes has a second gourd attached to the neck); the sarod's resonating body has a teak back and a goatskin face. A sitar has moveable frets along the neck; a sarod has no frets at all (like a violin). Both use "melody" strings, drone strings, and numerous high-pitched sympathetic resonance strings, which add richness to the tonal spectrum. The sounds are easy to distinguish. The sitar—first made popular in the West by Shankar, and soon after by George Harrison of The Beatles (and other rock musicians)—has a shimmering tone quality; the sarod's tone is relatively dark and unadorned.

WHAT IS A LUTE?

German lute, 1596.
Courtesy of The Metropolitan Museum of Art, New York, Gift of Joseph W. Drexel, 1889.

Lutes are one of the world's most common instrument types. Guitars, banjos, mandolins, and violins are types of lutes. In all of these instruments, the strings are attached to and then run across and parallel to the resonating body. Strings are then stretched along a neck. There is also an instrument simply called "lute," which was fashionable in Europe in the Renaissance and Baroque periods. The lute intersected with popular culture when the English rock musician Sting (b. 1951) recorded 16th-century songs for voice and lute on his album *Songs from the Labyrinth* (2006).

LISTENING 2.2 GUIDE

Excerpt in Chatuttal Manj-Khamaj raga, performed by Ravi Shankar (sitar) and Ali Akbar Khan (sarod)

Texture: Biphonic and heterophonic
Meter: Unmetered
Form: Open

ALAPANA

0:00	The music begins with the soft sound of the ***tambura***, a large resonant four-string lute that plays a **drone** on the pitches "sa" and "pa." The tambura continues throughout the composition and has the essential role of providing the never-changing tonal atmosphere into which all other pitches of the raga are projected and understood. The drone is omnipresent, like a garden's scent. Even so, once the other instruments enter, the tambura's tones are hardly noticed.
0:05	The sarod player strums his open strings. Moments later, the sitarist does the same. Notice the difference in the instruments' tone colors.
0:09	The sarod introduces the tones of the raga, which are similar to a Western major scale. There are small differences, however. Listen carefully and you will notice alterations of the 4th and 7th scale degrees (the 4th, or "ma," is sometimes raised; the 7th, or "ni," is sometimes lowered. These inflections might go unnoticed in casual listening, but not only do they help define the pillar tones (degrees 5 and 1) immediately above, they are also important contributors to the raga's mercurial quality.
0:18	The sitar follows with a similar melodic gesture. (Make sure you identify the tone color [timbre] difference between sarod and sitar.) Note that both sarod and sitar melodies begin and end on "ga," the 3rd scale degree. The instrumentalists play different melodies, but common beginnings and ends unite them. Notice how both musicians bend pitches higher and lower.
0:33	A melodic conversation begins between the two instrumentalists. Sometimes one will echo the other; other times, new ideas are introduced, always in the spirit of conversation. Notice the continued emphasis on the pitch "ga." Also notice the fluidity of the melodic gestures. There is no steady pulse.
1:02	The sarod embarks on an extended improvisation. Notice the temporal space between tones.
1:40	The sitar takes over. Do you feel the tension of the raised 4th scale degree briefly sounded at 1:48?
2:00	Sitar moves down the scale for a full octave.
2:17	Sarod enters. Sitar briefly answers at 2:24. Sarod continues. Higher tones are presented. Do not be impatient. Think of this as a gentle introduction to the raga's tones and emotional qualities. We are on an unfolding adventure of discovery.
3:33	The two instruments play together in melodic and rhythmic unison. This marks the introduction of the pre-composed melody that will be prominent in the composition's next section. We will return to this music in Chapter 14.

Rhythm

Rhythm refers to the ways in which music is organized into distinct time units. 2.5 To illustrate this, we will study the hymn tune "Amazing Grace," which is built on a general pattern of short and long tones (Figure 2.6).

A crucial element of rhythm is pulse, or **beat**. Understanding beat is simple; it is what you tap your foot to, what you step to when you dance, and what soldiers march to.

Beats are generally organized into repeated groups (**measures**, or "bars") of strong and weak pulses. In most Western music, the first beat of every measure (the **downbeat**) is strongest. The number and accentuation of beats in each measure determines a composition's **meter**. Meter is a fundamental

ACTIVITIES AND ASSIGNMENTS

- **Use the internet to listen to many different versions of "Summertime." Besides different operatic versions, listen to versions by Billie Holiday (1915–1959), Nora Jones (b. 1979), Ella Fitzgerald (1917–1996) and Louis Armstrong (1901–1971), and Janis Joplin (1943–1970), and more. Which do you like best? Why? Finally, listen to the remarkable recording by Albert Ayler (1936–1970). What was Ayler up to? How does knowing these other versions help you understand his?**
- **Take a familiar song and map its melodic phrases. Which phrases sound final? Which sound incomplete? On what pitch does the melody want to end? Where in the phrases are the highest notes? The lowest? Is the melody conjunct or disjunct? Is the range narrow or wide? How do these characteristics affect your emotional response?**
- **Use the internet to find examples of traditional music from non-Western cultures. Does the melodic language sound different from what you are used to? Describe the differences using the concepts above.**

organizing principal, a temporal yardstick that organizes rhythm's various elements into a cohesive whole, like organizing inches into feet, or feet into yards.

short	long	short	long	short	long	short	long
A-	**ma-**	zing	**grace;**	how	**sweet**	the	**sound.**

FIGURE 2.6
"Amazing Grace" rhythm pattern.

To find the beat and meter in "Amazing Grace," recite the lyrics above and tap out a steady pulse that gives one tap to the "short" tone and two taps to the "long" tone. When long and short patterns are thus combined we get a repeating pattern of three pulses, called triple meter. Music that groups into two beats per measure is called duple meter; four beats per measure is quadruple meter.

So far, the concept of rhythm seems pretty simple. But there is one more issue to tackle. Where does the meter begin? On which pulse? Meter is rooted by the downbeat, but many compositions begin elsewhere. For example, "Amazing Grace" begins on beat three. With a moment's thought, you will see why.

Say the word "amazing" and notice that the second syllable, not the first, is the strongest. So, if lyrics and meter are going to align (and they must), "**ma**" has to fall on the downbeat. This means that the first syllable ("**A**") must fall on a preparatory beat leading to one. Thus, the syllable "A" is on the **pickup** beat to the meter's beginning (Figure 2.7).

short	long		short	long		short	long		short	long	
A-	**ma-**		zing	**grace;**		how	**sweet**		the	**sound.**	
3	1	2	3	1	2	3	1	2	3	1	2
pickup note											

FIGURE 2.7
"Amazing Grace" metric analysis.

Notice that lyricists almost always place the most important words or naturally accented syllables on strong beats. Thus in "Amazing Grace" the accented syllable "ma" is placed on the strong beat one, as are the colorful words "sweet" and "sound."

"Amazing Grace" is a beloved hymn, and because the rhythm is so clear it is an excellent tune by which to introduce the concept of meter. But the fact is, triple meter songs are relatively unusual today. Almost all popular music in the United States (even the world) is organized into two- or four-beat units, duple or quadruple meter.

The last aspect of rhythm we need to discuss here is **tempo.** 2.6 Simply put, tempo refers to the pace at which the beats go by. It is fine to refer to tempos as fast or slow, but classically trained musicians, who follow a European system developed over centuries, often use Italian terms, such as

adagio (at ease), *andante* (walking tempo), and *allegro* (lively). These are the words you will generally see in the program book for a recital or symphony orchestra concert, even in English-speaking counties.

Tempo might stay steady throughout an entire work. Or it might vary. Tempo can change gradually or suddenly. Often tempo changes signify a shift in emotional focus, or a shift from one musical section to another.

Rhythm in the non-Western World: An Example from Southeast Asia

Just as concepts of melody vary from culture to culture, rhythmic organizations also differ. A contrasting approach to rhythmic organization can be found in Bali, Indonesia, an island famous for its physical beauty, bronze **gamelan** orchestras, and interlocking rhythms. @ 2.7 These interlocking patterns can be heard in *Kecak* (pronounced ké-chak), a composition for narrator and men's chorus.

Kecak, which is drawn from the Hindu epic the *Ramayana* (*Rama's Journey*), tells of Lord Rama's battle with the demon Ravana. The chorus takes on the role of a monkey army, which chatters away with great energy. To achieve this effect, the men divide into groups and shout "monkey sounds" ("cak") in interlocking rhythmic patterns. Each pattern includes short spaces for breathing, while an adjacent pattern fills in the empty space of the other. This interlocking technique is called ***kotekan***, a foundation of Balinese music making. Kotekan may be performed vocally (as in *Kecak*) or between the instruments of the gamelan.

A standard kotekan pattern for three groups of *Kecak* performers is diagrammed in Figure 2.8. Give it a try by forming a trio (or a duet using patterns 1 and 2). Reading from left to right, sing the patterns while clapping the steady beat. For familiarity, first have everyone sing each of the lines together. Then, divide the parts so that each person (or group) sings a different line. You will notice

RAMAYANA

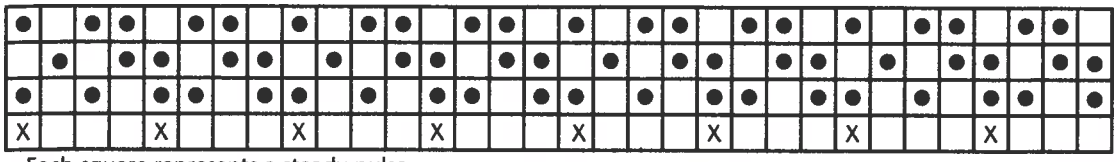
The *Ramayana* (*Rama's Journey*) is an epic Sanskrit poem of 24,000 verses, the authorship of which is attributed to the poet Valmiki, who lived during the 4th century BCE.

Valmiki tells the story of Rama (a worldly incarnation of the Hindu deity Vishnu) who lives on Earth unaware of his divine heritage and worldly mission. Through his life, Rama endures hardships and learns many difficult lessons.

Rama's greatest trial begins when his wife Sita is kidnapped by the many-headed demon Ravana, who desires Sita for himself. With the help of the monkey god Hanuman (according to some mythology, an avatar of the Hindu deity Shiva) and Hanuman's monkey army, Rama is able to defeat Ravana.

Kecak dance in Bali, March 28, 2016.

Cmichel67/Wikimedia Commons/CC-BY-SA-4.0.



Each square represents a steady pulse
Clap the beat on X
● Represents "cak"
☐ Represents silence

FIGURE 2.8
Kotekan pattern.

that all the patterns have the same exact sequences of sounds and silences, but because each pattern fits differently against the underlying pulse, each *feels* different. When the patterns are performed together, every temporal subdivision is filled with a sound. (This is also the case when patterns one and two or patterns two and three are performed together.)

QUESTIONS FOR THOUGHT

- **What would a composite diagram of all the kotekan parts look like?**
- **Notice in "Amazing Grace" that the full syllable is "maz," but that when sung the "z" is moved back and attached to the "ing." Experiment singing the phrase both ways. Why does the "z" get moved?**
- **How do you identify meter in music without words? What are the cues?**
- **Tap out the beats to a song you know. Is there a pickup beat? Do the beats group into twos/fours (duple/quadruple) or threes (triple)? Have one person clap the rhythm of the piece and one person tap the beat. What's the difference between the rhythm and the beat?**

ACTIVITIES AND ASSIGNMENTS

- **Compose an interlocking pattern for two people. Perform it for the class.**
- **Find a video of *Kecak* on the internet. Do you hear a pulse?**

Harmony

Harmony occurs when at least two different pitches sound at the same time, such as when two people sing together with different material or when a musician strums the strings of a guitar. Harmonies that sound pleasing to our ears are said to be **consonant**. Those that sound harsh or clash are said to be **dissonant**. As a general rule, dissonant harmonies are used to produce feelings of anxiety or tension. @ 2.8

Different cultures and time periods have different standards of what is consonant and dissonant. A musician in the 12th century, for instance, would likely find the works of Wolfgang Amadeus Mozart (1756–1791) to be jarringly dissonant. Today, however, we consider Mozart's music to be quite soothing.

In Western art music, three or more pitches that sound at the same time create a **chord**. Chords are built according to specific rules. The most basic rule is that a simple three-tone chord, or **triad**, is built upward from the bottom (or "root") in alternating scale tones. Thus, a triad built on "do" will skip "re," include "mi," skip "fa," and end on "sol." The resulting triad will be do–mi–sol.

Chords function in a manner similar to melodic scale tones in that they too have varying degrees of stability. A chord built on the first scale degree (do–mi–sol) is the most stable. This is called the "tonic" or (Roman numeral) I chord. Most pieces in the Western tradition begin and end on the

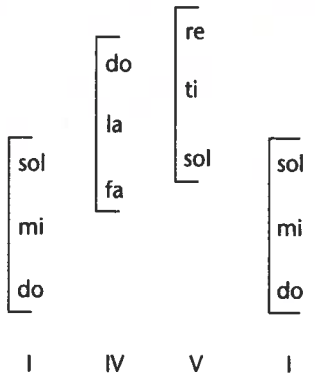


FIGURE 2.9
I–IV–V chord progression.

tonic chord. The "dominant," or "V" chord, is second in foundational importance to the tonic chord. It is built on the fifth scale degree (sol–ti–re). The dominant chord has a tendency to return home to the tonic. Third in foundational importance is the "**subdominant**," or "IV" chord (fa–la–do). The subdominant tends to move either to the tonic or the dominant (Figure 2.9).

These three chords make up the harmonic backbone of Western music. If you string these together (subdominant [IV], dominant [V] and tonic [I]), you get a common ending formula known as a **cadence**. Slightly more complex (and more common) are cadential progressions based on the chord series I–vi–ii–V–I. George Gershwin's hugely popular song "I've Got Rhythm" (1930) followed this pattern almost throughout. Even today, musicians call the sequence "rhythm changes." It remains a standard progression in both jazz and pop music.

ACTIVITIES AND ASSIGNMENTS

- **Keeping the alternating-scale-tones rule in mind, build a triad based on "re"; build a triad based on "la." Notice that chords often share tones with one another. Triads built on "do" (do–mi–sol) and "la" (la–do–mi) have two tones in common. Triads based on "fa" (fa–la–do) and "do" (do–mi–sol) have one tone in common.**

Timbre

Every sound has a particular color or **timbre**. It is through timbre that you can tell the difference between your grandmother's voice and your girlfriend's, a flute and a violin, and (if you listen carefully) even distinguish one violin from another. During the course of the semester we will find that timbre can identify not only the individual or instrument producing the sound, but perhaps also the particular culture from which the music derives. In vocal music, for example, certain cultures value purity of tone while others value tones that are grainy or strongly nasal. So too, some instruments have a harsher quality than others. An instrument's timbre depends on a combination of three factors: 1) the size of the instrument, 2) what it is made of, and 3) how the sound is produced. Playing styles can also influence timbre.

DYNAMICS

Dynamics refer to the volume of a note or passage of music. In Western art music, Italian terms are used to indicate how loudly or softly to play.

forte (*f*) = loud

piano (*p*) = soft.

Other dynamic markings include:

fortissimo (*ff*), louder than *forte*

mezzo-forte (*mf*), moderately loud

mezzo-piano (*mp*), moderately soft

pianissimo (*pp*), softer than *piano*.

The term *crescendo* means to get louder; *decrescendo* means to get softer.

MUSICAL INSTRUMENT CLASSIFICATION SYSTEMS

Musical instruments are categorized in many ways, though the most common in the Western system is that used in the modern orchestra: **strings**, **woodwinds**, **brass**, and **percussion**. The early 20th-century German scholars Kurt Sachs and Erich von Hornbostel created a more formal classification system based on five large categories: **chordophones** (stringed instruments: guitar, violin, etc.), **aerophones** (wind instruments: flute, trumpet, etc.), **membranophones** (drums), **idiophones** (shaken or struck instruments: maracas, xylophones, gongs, etc.), and **electrophones** (synthesizers, radios, theremins, etc.). @ 2.9

QUESTIONS FOR THOUGHT

- **Do you see potential weaknesses in the above musical instrument classification systems?**
- **The first classification system presented above is based on the instruments' role in the orchestra. The second is based on how the sound is produced. What others systems might work?**
- **Where does an acoustic instrument leave off and its electric counterpart begin? Rock guitarists, for example, create many new sounds through electronic effects.**
- **Theater companies, TV and movie producers try to save money by reproducing the sounds of instruments electronically rather than paying musicians. What effect does this have on the music? On the musicians? On the economy?**
- **In the 17th and 18th centuries, the trombone was associated with the underworld and death. Are certain instruments associated with particular ideas today?**
- **Notice how people change the timbre and pitch of their voices when talking to babies, yelling at a sports referee, or talking in front of a crowd. How and why do you change the timbre of your voice?**

ACTIVITIES AND ASSIGNMENTS

- **Bring an instrument into class and perform. Have your classmates describe the sound.**
- **Make an idiophone with things in your backpack or on your desk. Can you make a chordophone? An aerophone?**
- **As you listen to the pieces discussed in later chapters, describe the timbres you hear (nasal, clear, rough, etc.). Then consider how timbre affects meaning.**

Texture

The ways in which different musical parts fit together is called **texture**. Music can have different textures. 2.10 A large orchestral texture might be described as thick, like velvet. A solo flute might be silky thin. Music theorists categorize texture according to five different characteristics:

1. Monophony
2. Polyphony
3. Homophony
4. Heterophony
5. Biphony.

Monophony consists of a single musical line without accompaniment. Even though many voices or instruments might be involved, as long as all are sounding the exact same line, the texture is monophonic.

Polyphony involves several independent lines sounding simultaneously. The simplest kind of polyphony is a round (also called a canon). A good example is the children's song "Row, Row, Row Your Boat" in which everyone sings the same melody at a different time.

In more complex examples of polyphony, the independent melodies are not necessarily the same tune. Instead, complementary lines are

Kyrie eleison LISTENING 2.3 GUIDE

This setting of Kyrie eleison is an example of a monophonic, sacred chant from the Middle Ages (see Chapter 7: Music and Spirituality). Notice that all of the voices are singing the exact same melody.

LISTENING 2.4 GUIDE

Kyrie from the *Pope Marcellus Mass*, by Giovanni Pierluigi da Palestrina

Listen to the six-voice polyphonic setting of the Kyrie eleison text by the Renaissance composer Giovanni Pierluigi da Palestrina (ca. 1525–1594). Notice how each voice enters separately, one after the other.

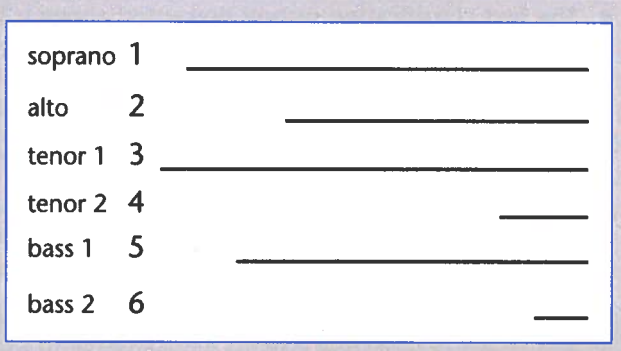


FIGURE 2.10
Diagram of vocal entrances in Palestrina's Kyrie eleison.

LISTENING 2.5 GUIDE

"Amazing Grace," performed by the Robert Shaw Festival Singers

Listen to the Robert Shaw Festival Singers singing "Amazing Grace." Concentrate on the texture, particularly the relationship between the melody and the accompanying chords.

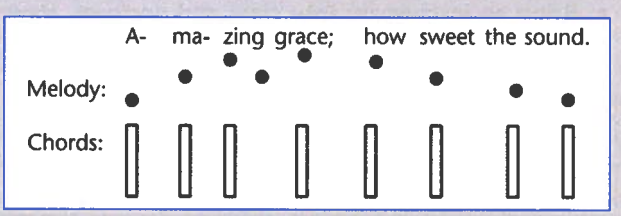


FIGURE 2.11
Vocal shape and homophonic texture of "Amazing Grace."

woven together like threads in a tapestry. Much of the music of the Renaissance and Baroque periods was written polyphonically. Composers relied on a strict set of compositional rules to combine the different lines. Later composers often used polyphony to indicate a "learned" or elevated style of music.

Homophonic texture consists of a melody plus chordal accompaniment, such as a guitar-strumming folksinger. The basic idea behind homophony is that the accompanimental tones sound together as a whole rather than as individual parts. For example, when a musician strums a six-string guitar, the listener hears a single event comprising six tones, rather than six individual tones each with its own particular identity. In the Western tradition, the vast majority of hymns, folk tunes, and popular songs are set in a homophonic texture. More complex homophonic textures may be found in symphonic works and other pieces from the Western art music tradition, but these, too, are considered to be homophonic since they are based on an underlying chordal foundation.

Heterophony is heard when a single basic melody is performed slightly differently by two or more performers. For instance, one singer/player might add embellishments to his version of the melody in order to differentiate it from that of another musician. Or, he might perform it with slightly different rhythms from the other performer. This texture is uncommon in Western music, but is often used in Middle Eastern, Asian, and Native American cultures.

Biphony refers to two separate lines consisting of a melody plus a drone. Biphonic music is often found in world music repertories. Bagpipes use drone pipes along with the melody pipe. A **harmonic singer** can produce both a drone and a melody. Most Indian music uses a drone instrument to establish the tone "sa."

"Tarawangsa," performed by S.B. Manchakai

LISTENING 2.6 GUIDE

In this excerpt, one musician plays the *tarawangsa*, a two-stringed fiddle, while the other plays a small zither called a *kapaci*. As the kapaci player plucks the main tones of the melody, the tarawangsa player uses a bow to perform an embellished version of the same tune.

"Tuvan Folk Melody"

LISTENING 2.7 GUIDE

In this Tuvan folk melody, a vocalist produces a melody above an unchanging drone. How does he do it? First, he produces the drone pitch with his vocal chords. Then, by moving his lips and tongue in various ways, he changes the shape and size of his oral cavity. As this resonating chamber is reshaped, different overtones are emphasized. These overtones make up the melody.

ACTIVITIES AND ASSIGNMENTS

- **With a partner, read the following words aloud in exact unison: "Monophonic music requires perfect blend." If you succeeded in being in unison, you performed in a monophonic style. Now, choose a new sentence that your partner does not know. Say it aloud and have your partner repeat what you say as she hears it. Inevitably, she will speak her words slightly behind yours, maybe even leave out or change a word. This is heterophony.**

MUSICAL GENRES

The word "genre" means "type" or "kind." Most cultural artifacts (art, literature, cinema, music, etc.) are labeled according to genre (novel vs. poem; watercolor vs. oil painting, for example). The following list includes the more common genres of Western art music; those you are likely to encounter in a concert setting.

Song: a work for a solo vocalist, usually with piano accompaniment (note that the term "song" is not a generic term for all pieces of music. Generally, if you do not hear singing, you are not hearing a song. Use the terms "piece" or "work" as a good substitute for "song.")

Symphony: a large-scale work written for a symphony orchestra, usually consisting of separate sections called movements.

Concerto: a work for a solo instrument accompanied by a symphony orchestra, usually in three movements.

Sonata: a multi-movement piece either for solo piano or for piano plus one other instrument. For instance, a violin sonata would be for violin and piano.

Opera: a staged drama told in music.

Chamber music: any number of instrumental combinations usually written for nine or fewer players. The most prevalent is the string quartet, written for two violins, viola, and cello.

Form

Form refers to the overall shape or structure of a piece of music. Composers generally have a basic form in mind before starting to write. Occasionally the form is the invention of the composer, but usually it conforms to a traditional structure. Examples of traditional Western art music forms include **binary** (two parts); **ternary** (three parts); and **rondo**, in which a familiar **refrain** alternates with new material. Forms common to Western popular music include **32-bar song form** and **12-bar blues**. Composers use their full arsenal of musical elements to distinguish different sections of a form, including: melody, rhythm, harmony, texture, and timbre. Through repetition, contrast, and development, composers can both set up and thwart expectations. They can create tension or relaxation, chaos or order. We will consider these forms in subsequent chapters. @ 2.11

QUESTIONS FOR THOUGHT

- **Why might composers use forms for their music? Why not just write whatever comes into their heads?**

ACTIVITIES AND ASSIGNMENTS

- **Find artworks or poetry (or create your own) that illustrate the equivalent of binary, ternary, and rondo forms. How are the different sections delineated?**
- **Experiment with writing your own music. Try to incorporate aspects of each of the musical elements discussed in the text.**

Conclusion

This chapter equipped us with a vocabulary comprising the basic tools used to describe, order, and analyze our listening experience. In subsequent chapters we put these tools to use in making sense of our musical world. The repertoire is wonderfully diverse, but general analytical techniques can be applied universally. With practice we will hear new complexities within single compositions, as well as connections between different musical genres, musical cultures, and historical eras.

Key Terms

- 12-bar blues
- 32-bar song form
- alapana
- beat
- binary
- biphony (biphonic)
- composition
- conjunct motion
- consonant
- dominant
- disjunct motion
- dissonant
- downbeat
- drone
- form
- gamelan
- genre
- harmony
- heterophony (heterophonic)
- homophony (homophonic)
- kotekan
- measure (or bar)
- melody
- meter
- monophony (monophonic)
- octave
- phrase
- pickup
- pitch (or tone)
- polyphony (polyphonic)
- raga
- range
- rondo
- rhythm
- sarod
- scale (major, minor, chromatic)
- sitar
- song

- subdominant
- tambura
- tempo
- ternary
- texture
- timbre
- tonic
- triad

Essay Questions

- **How might an understanding of musical elements encourage engaged listening?**
- **How might a composer or lyricist create multiple layers of meaning?**
- **Physicality and space are essential elements in the formation and experience of visual art (painting, sculpture, architecture). What elements are essential in the formation and experience of sonic art?**